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Realistic Cultural Threat and Opposition to Immigration in the U.S.

A Dissertation Presented

by

Ben Jordan Newman

to

The Graduate School

in Partial Fulfillment of the

Requirements

for the Degree of

Doctor of Philosophy

in

Political Science

Stony Brook University

August 2012

Stony Brook University
The Graduate School

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Abstract of the Dissertation

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My dissertation explores the realistic dimensions of the cultural threats posed by immigrants and their impacts upon Americans' immigration policy preferences. Cultural threat, at present, is an under-theorized concept within the opinion research on immigration. The existing literature conceptualizes the cultural threats posed by immigrants largely in terms of social identity and symbolic politics theories, where immigrants are cast as posing a collective level threat to the American identity and its related symbols. What remains largely under-developed is a theoretical and empirical exploration of the more tangible and realistically rooted cultural threats posed by immigrants to individual native born citizens. In this dissertation, I draw upon the literature on acculturation and adaptation originating within the fields of cultural anthropology and cross-cultural psychology, as well as social psychology research on intergroup anxiety and language-based social exclusion, to derive a theory of the realistic and personal cultural threats of immigration. Three forms of realistic cultural threat will are explicated and empirically explored: (1) residing in a local context undergoing substantial and unprecedented influxes of immigrants, (2) contact with unassimilated immigrants within one's neighborhood, and (3) exposure to foreign language in interpersonal and impersonal circumstances.

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Chapter 1: Introduction

This dissertation is a collection of three articles that explore a common research question and explicate a common theoretical framework. The general question engaged by the articles is what causes support for restrictive and nativist government immigration policies among the American public? One of the most prominent findings to emerge from the existing opinion literature on immigration is that cultural threat is a powerful predictor of opposition to immigration. In the articles that come, the meaning of this term will be thoroughly reviewed and critiqued. As will be seen, one of the principal goals of my dissertation articles is to build upon the existing work on cultural threat by expanding it beyond its current conceptualization as a mostly symbolic type of threat. In each of the three articles, which are included as separate chapters in this dissertation, the concept of cultural threat is expanded from being conceptualized as a threat to immaterial objects, such as cultural identities and their associated symbols, and is pushed into the domain of the tangible, where various concrete factors, such as one's ethnic context and actual contact, are theorized as important realistic dimensions of the cultural threats of immigration. The overall goal of this dissertation is to show how these tangible factors, through generating feelings of cultural threat, ultimately come to increase support for restrictive and nativist immigration policies.

The first article of my dissertation, presented as Chapter 2, explores how objective changes in the ethnic composition of citizens' local environment influences their perception that immigrants pose a cultural threat, and ultimately shapes their preferences over government immigration policy. This article provides a thorough review of the opinion literature on immigration, including a review and critique of cultural threat, as well as a review and critique of the research on impact of citizens' ethnic context on their opinions on immigration. This article

introduces an acculturation framework as an alternative to the symbolic politics and social identity theory frameworks for cultural threat and as a theoretical basis for explicating a realistic theory of cultural threat. The goal of this article is twofold. First, this article seeks to expand cultural threat beyond being deemed a symbolic threat by demonstrating that real and unprecedented changes in the immigrant minority population in citizens' county of residence—labeled an acculturating context—enhance the perception that immigrants are culturally threatening. By demonstrating this link between objective context and cultural threat, an important first step is made in demonstrating a tangible basis for the perception that immigrants are culturally threatening. Second, this article seeks to improve upon the existing contextual research by demonstrating that the process of acculturation within citizens' local context, characterized by high over-time growth in immigrant populations where the prior size of such populations was low, strongly triggers cultural threat perceptions. By demonstrating the conditional effects of immigrant growth on cultural threat perceptions, and ultimately, policy preferences, this article makes an important contribution to the opinion literature on immigration exploring the effects of ethnic context.

In the second article of my dissertation, included here as Chapter 3, I build upon the first article by demonstrating that actual personal contact with immigrants influences cultural threat perceptions and policy preferences. While the first article demonstrates that a specific pattern of change in citizens' context triggers cultural threat perceptions, this theory presumes exposure to new, and presumably culturally distinct and unassimilated, immigrants. However, no such contact is directly observed or analyzed in the first article. To further support the acculturation framework underlying the acculturating contexts hypothesis of Chapter 2, the article presented as Chapter 3 directly measures personal contact with unassimilated immigrants—measured by

linguistic assimilation—and demonstrates that both the degree of this contact, and the negative emotions generated by this contact, each increase the perception that immigrants threaten the American culture. Further, this article demonstrates that this type of contact-threat is more likely to generate cultural threat than any other type of immigration-related threat, such as material threat or crime threat. Given that the key theorized feature of the process of acculturation threat laid out in this and the prior chapter is exposure to unfamiliar culture, and important implication of my theoretical framework is that individual differences in standing cultural diversity experiences may shape the degree of unfamiliarity conferred by intercultural contact. This Chapter concludes by showing that individual differences in standing cultural diversity experiences strongly conditions how citizen's react to contact with unassimilated immigrants. The final analyses in this chapter reveal that citizens with the least diverse experiences are the most likely to be bothered by contact with unassimilated immigrants. This final analysis reveals a more complex and nuanced causal process than demonstrated in prior research, where diversity experiences indirectly shape policy preferences by influencing whether or not citizens experience negative emotions, and thus cultural threat, from contact with culturally distinct and unassimilated immigrants.

The last article, presented as Chapter 4, seeks to tie together the preceding chapters through the presentation of two original experiments. The first two articles rely upon cross sectional data, and while the goal is to make causal claims, the nature of the data limits one in doing so. Given this, the third article relies upon series of original experiments where exposure to unfamiliar culture in the form of foreign language is experimentally manipulated. These two studies find that experimental treatments significantly increase cultural threat perceptions, and through this, indirectly increase support for restrictive and nativist immigration policy. These

address issues of endogeneity and causality, and provide more conclusive and micro-level support for acculturation framework.

Taken together, these three articles demonstrate that cultural threat has realistic components, and that they can be observed at the level of context, contact, and concrete exposure to foreign cultural and language. Across the three articles, one consistent feature of the hypotheses and findings is that these realistic factors *indirectly* influence support for restrictive and ethno-nativist immigration policies by augmenting cultural threat perceptions. In the end, these articles come together to paint a comprehensive picture of the tangible bases of the perception that immigrants are culturally threatening, and how these tangible factors, by triggering such perceptions, ultimately come to generate opposition to immigration. The goal of this dissertation is that these articles will build upon one another, cohere, and make a firm contribution to the opinion literature on immigration.

Chapter 3: Acculturating Contexts and Opposition to Immigration in the U.S.

Conflict over immigration and vocal attempts by national political leaders to "reform" or "overhaul" federal immigration laws come in and out of the national political scene and the public mind nearly every few years in the U.S. The recurrence and intensification of political conflict over immigration in the U.S. is undoubtedly tied to ongoing and accelerating immigration-driven demographic changes in the nation. Data from the U.S. Census Bureau reveals that the nations' foreign-born population is nearing 37 million, or 12 percent of the total population. The Hispanic population, which is the largest and arguably most salient immigrant group in the U.S., grew 46 percent from 2000 to 2010, and accounted for nearly 56 percent of the nations' total population growth over this period. In addition, the nation's unauthorized immigrant population has also steadily risen over the past decade, growing from 8.4 million in 2000 up to 11.2 million in 2010. [1] At the state level, state immigrant populations grew on average by 150 percent between 1990 and 2006.[2] In short, few Americans in the 21st century live in towns, states, or regions unaffected by immigration.

Historically, with immigration comes the prejudice, hostility, and resentment of long-time citizens toward immigrant groups (Bennet 1988; Higham 2002; Schrag 2010). A popular object of inquiry in the social sciences is the exploration of the causes of these negative reactions to immigration, yielding a corpus of public opinion research assessing the sources of anti-immigrant sentiment and policy support among the American public. At present, two main developments stand out in this research. First, cultural threat, characterized by the perception that immigrants threaten the American identity and culture, stands as a predominant explanation for

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[1] Population figures obtained from publically available reports posted online at the Pew Hispanic Center.
[2] Estimate from the U.S. Census Bureau's 1990 Decennial Census and 2006 American Community Survey.

and prepotent predictor of opposition to immigration. Second, the literature has experienced a resurgence of interest in the impact of context on opinion, with the emergence of more nuanced theories hypothesizing conditional links between ethnic context and attitudes toward immigration. The main goal of the present research is to build upon these two key developments by bringing them together in the form of theorizing and empirically assessing the conditional effects of citizens' local ethnic context on their cultural threat perceptions.

This article advances the *acculturating contexts hypothesis*, which argues that residing in local contexts undergoing substantial and unprecedented ethnic change constitutes a concrete and previously over-looked contextual dimension of the cultural threat of immigration. This hypothesis contends that a large influx of immigrants will be most culturally threatening for citizens residing in contexts with minimal pre-existing immigrant populations and least culturally threatening for those residing in contexts with larger extant immigrant populations. Tested within the context of Hispanic immigration, this article uses census and national survey data to demonstrate that the impact of county-level growth in the Hispanic population from 1990 to 2000 upon White residents' attitudes towards immigrants is conditional upon the 1990 size of the Hispanic population within the county. In high Hispanic growth counties with low initial Hispanic populations (i.e., acculturating counties), higher levels of perceived cultural threat are reported among residents, which in turn enhance support for restrictive immigration policy. Large growth in the Hispanic population in already diverse county contexts with larger extant Hispanic populations (i.e. acculturated counties), however, produces effects in-line with the predictions of intergroup contact theory, where growth is associated with a decrease in perceived cultural threat and an increase in support for permissive immigration policy.

In total, this research makes an important contribution to furthering our understanding of the sources of opinion on immigration in two principal ways. First, it extends the current conceptualization of cultural threat beyond the symbolic into the realm of the realistic by emphasizing the objective process of acculturation and the impact of residing in an acculturating context. The results of the analyses demonstrate that a certain portion of the cognitive process of perceiving threats to the American culture from immigrants stems from real and novel changes in one's surrounding sociocultural environment. Second, by theorizing and empirically demonstrating the conditions under which growth in local immigrant populations lead to threat, this research addresses important inconsistencies in past findings within the contextual research, advances our present understanding of the effects of context on opinion, and contributes to the reconciliation of intergroup threat and contact theories in the immigration literature.

THE CULTURAL THREAT OF IMMIGRATION

The predominant framework in the opinion research for explaining public opposition to immigration centers upon the threats posed by immigrants to native-born Anglo citizens. This framework often involves a comparison between those threats conceptualized as realistic, materially-based, and economic on the one hand, and those conceived as symbolic, identity-oriented, and cultural on the other hand (Citrin, Reingold, and Green 1990; Hood and Morris 1997; Stephan, Ybarra, and Bachman 1999; Sniderman, Hagendoorn, and Prior 2004). A key result emerging from the opinion research is that measures of perceived cultural threat largely outperform measures of material and economic threat. Measures of perceived cultural threat have been found to dwarf the effects of economic threat measures in the U.S. context (Citrin et al. 1990a; Citrin et al. 1990b; Citrin et al. 1997; Espenshade and Calhoun 1993; Ha 2008; Hood and Morris 1997), in the Dutch context (Sniderman et al. 2004), and across 20 European

countries (Sides and Citrin 2007). In addition, leading experimental research found that an experimental manipulation inducing cultural threat produced a stronger anti-immigrant response than an experimental induction of economic threat (Sniderman et al. 2004).

Despite its status as a prepotent source of public support for anti-immigrant policies, cultural threat is presently an under-theorized and under-analyzed concept in the literature, largely because it is conceptualized almost exclusively in symbolic terms, and with little to no effort aimed at linking it to citizens' ethnic context. The prevailing conceptualization of cultural threat in the political science literature is derived from social identity theory (SIT; Tajfel and Turner 1979) and symbolic politics theory (SPT; Sears 1993) and emphasizes the perception that immigrants threaten one's national identity, culture, and "way of life" (Citrin et al. 1990; Sniderman et al. 2004). Within the existing literature, cultural threat is conceptualized as symbolic in nature because it is theorized to revolve around concern over putatively intangible objects, such as culture, identity, and the values, beliefs, and customs which serve as potent symbols of culture and identity (Citrin et al. 1990; Sniderman et al. 2004; Stephan et al. 1999). Concern over these intangible objects is contrasted in the literature to concern over the more concrete material resources and outcomes situated at the center of theories of realistic group conflict (Taylor and Moghaddam 1994), such as jobs, income, political office, and public safety.

Beyond pertaining to threats to immaterial objects, the symbolic conceptualization of cultural threat extends to its theorized sources; while material and economic threats are believed to stem from real intergroup processes, zero-sum competition, or one's objective economic vulnerability, cultural threat perceptions have largely been traced to factors operating *within* the individual. For example, existing research demonstrates that cultural threat perceptions stem from personality factors, such as self-esteem (Sniderman et al. 2004) and authoritarianism

(Hetherington and Weiler 2009), as well individuals' deeply ingrained symbolic orientations, such as religious affiliation (Fetzer 2000) or ideology and national identity (Citrin et al. 1990). According to this symbolic framework, the perception that immigrants pose a threat to the American culture originates from within the individual, and need not have any actual correspondence to real, objective factors, such as the size or characteristics of local immigrant populations. This feature of cultural threat is consistent with SIT and SPT, which view intergroup conflict as springing not from zero-sum competition but from internalized identities and ingrained orientations learned through political socialization.

By referring to concern over immaterial objects and ostensibly emerging from factors operating primarily within the individual, cultural threat has largely been relegated to the realm of the unrealistic, with little intellectual effort invested in identifying or exploring dimensions of cultural threat that are tangible and distinct from concerns over the status or maintenance of national identities. What is particularly lacking is the absence of an attempt in the literature to theoretically and empirically link concerns over the cultural impacts of immigration to citizens' ethnic context. Interestingly, despite being a central concept and key predictor of immigration policy preferences, no research exists within the opinion literature that specifically addresses whether cultural threat perceptions are influenced by the characteristics of immigrant populations residing near or around citizens. In other words, while cultural threat is about immigration, the existing research has yet to reveal whether cultural threat has any systematic relationship to immigration. An important contribution to the opinion research on immigration can be made by determining whether concrete intercultural processes operative within citizens residential contexts—such as increasing ethnic diversity driven by growth in immigrant minorities— influence the perception that immigrants are culturally threatening. Establishing the effect of

such tangible contextual factors as distinct from those of identity, prejudice, or other key symbolic orientations, would support the theoretical claim that cultural threat, as a theoretical construct, should be conceptualized as having important symbolic *and* realistic components.

CONTEXT, THREAT, AND OPINION ON IMMIGRATION

The development of a contextual theory of cultural threat requires the arduous task of contending with the corpus of contextual research within the intergroup relations and public opinion literature. In building such a theory, it is important to heed the lessons learned from this research and devise a theory that addresses key shortcomings in past work and builds upon recent advances. Within the opinion literature, scholarship has long been drawn to the power threat hypothesis (Blalock 1967; Key 1949), which when applied to immigration, argues that the size of local immigrant groups should be linked to the degree of real economic and political competition between immigrant minorities and native-born residents. Given the theorized linkages between immigrant group size, real competition, and the perception of threat, the power threat hypothesis predicts that hostility toward immigrants and support for anti-immigrant policies will be greater among citizens residing in immigrant heavy local areas (Hopkins 2010; Quillian 1995; Taylor 1998). Despite the intuitive logic and appeal of this hypothesis, research on power threat has produced one of the central puzzles in the contextual research—the notoriously inconsistent findings for group size-based measures of ethnic context on citizens' attitudes and policy preferences. At present, limited evidence exists in support of the power threat hypothesis (Campbell, Wong, and Citrin 2006; Tolbert and Grummel 2003), some studies find that residing near a large population of immigrant minorities reduces anti-immigrant sentiment and policy support (Fetzer 2000; Fox 2004; Hood and Morris 1997), and the bulk of the research finds that the size of local immigrant populations exerts no effect on citizens'

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immigration policy preferences (Cain, Citrin, and Wong 2000; Citrin et al. 1990; Dixon and Rosenbaum 2004; Fennely and Federico 2008; Frandreis and Tatolovitch 1997; Taylor 1998).

At least three plausible explanations exist to account for these inconsistent results.[3] The first and predominant explanation is the countervailing predictions of intergroup threat and contact theory (Allport 1954) with respect to ethnic context, with the former predicting hostility in response to residing near large immigrant populations and the latter predicting increased contact and the reduction of negative stereotypes and feelings of threat. These opposing predictions have led scholars to link the inconsistent results found in the research to the distinct possibility that larger group size in some instances accompanies the types of diffuse, irregular, and superficial contact leading to threat, in other instances captures the types of consistent and personal contact described in contact theory to reduce threat, and in many other instances soaks up some blend of the two, which counteract each other and produce null effects on opinion. Second, the predictive value of the power threat hypothesis in the case of White opinion on immigration has come into question largely out of concern that relations between Whites and immigrant minorities—such as Hispanics or Asians—may operate differently than past relations between Whites and Blacks (Hopkins 2010; Oliver and Wong 2003). A third plausible explanation that has received little attention pertains to operationalization, with many contextual theories stipulating the perception of threat as an intermediary between context and immigration policy preferences, but in most cases failing to actually specify mediated effects in their analyses. For example, the principal mechanism linking minority group size to White racial hostility in theories of realistic group conflict and power threat is the perception of threat associated with the

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[3] In addition, scholars have also identified the measurement of context at varying geographic levels (state, county, zip-code, city, census tract, etc.) as an additional source of variation in the results of research on ethnic context and opinion (for example, see Oliver and Mendelberg 2000).

group in question (Key 1949; Quillian 1995). According to these perspectives, in order for the competitive group processes presumed by minority group size to activate hostility among Whites toward minorities, these competitive relations have to be perceived and translated into the belief that these groups pose a threat. Despite the rather explicit suggestion that context will generate support for restrictive immigration policies through the perception of threat, the overwhelming majority of studies analyze models testing the direct, rather than indirect, effects of context on policy preferences (e.g. Campbell et al. 2006; Hood and Morris 1997)

In response to the poor empirical performance of the power threat hypothesis, the literature has seen the emergence of a new wave of contextual research possessing a sharper theoretical focus on stipulating the conditions under which group size-based measures of racial and ethnic context lead to amity or enmity between groups (Oliver and Mendelberg 2000; Oliver and Wong 2003; Branton and Jones 2005). The clear goals of theorizing the conditional effects of context within this research are to push extant theories beyond their current borders and reconcile the countervailing predictions of intergroup threat and contact theories. The renewed interest in context found its way into the immigration literature through work exploring the effect of contextual measures of local immigrant populations conditional on the degree of contact with its members (Hood and Morris 2000; Stein, Post, and Rinden 2000), the specific policy under consideration (Campbell, Wong, and Citrin 2006), the specific immigrant group in question (Ha 2010), whether the immigrants are legal or undocumented (Hood and Morris 1998), the degree of residential segregation and cultural assimilation of the immigrant population (Rocha and Espino 2008), and the salience of immigration in the national news media (Hopkins 2010). In addition, theoretical concerns regarding the applicability of the power threat hypothesis to the case of immigration have resulted in a shift in recent leading research toward a theoretical and empirical

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focus on the over-time growth in, rather than the size of, immigrant populations as the key characteristic arousing public attention and driving threat (Hopkins 2010).

These recent works have taken significant steps in moving scholarship beyond the power threat hypothesis and demonstrating important nuanced relationships between context and opinion. At present, however, a critical omission in this line of contextual research is the failure of scholars to apply a standing alternative to the power threat hypothesis, which itself is a conditional theory of threat, to the case of immigration. Introduced in the work on white-black interracial relations, the "defended neighborhoods" hypothesis (Green, Strolovitch, and Wong 1998) focuses on the effect of growing racial diversity within an area over a particular period of time *conditional* upon the areas' prior degree of racial homogeneity. The hypothesis argues that growing minority populations are most likely to translate into racial hostility in white-dominated, as compared to multiracial, communities. The defended neighborhoods hypothesis has been found to provide a powerful account of interethnic violence in NYC (Green et al. 1997) and xenophobic voting behavior in post-soviet Russia (Alexseev 2006). Despite its theoretical and empirical exploits, it has failed to see much application in the intergroup literature writ large.

One primary concern in applying the defended neighborhoods hypothesis to the case of immigration is the applicability of a theory developed within the context of white-black interracial relation to the domain of intercultural relations. There are several features of the hypothesis worthy of noting that support its status as a prospect for application to this context. First, the defended neighborhoods approach emphasizes the growth in, rather than the size of, a residentially proximate out-group population. Second, this perspective advances a conditional framework, yielding divergent predictions for the effect of growth on threat depending upon the prior degree of racial homogeneity within a local context, thus offering a theoretical resolution of

the conflicting predictions of intergroup threat and contact theory. In sum, the defended neighborhoods' emphasis on the conditional effects of change allays several vital concerns associated with the power threat hypothesis and its applicability to opinion on immigration. Beyond these initial exploits of the defended neighborhoods hypothesis, its translation to the context of immigration is more strongly guided by a body of theory and research explicitly pertaining to intercultural relations. This body of work, introduced in the following section, will serve as the principal theoretical basis for the issuance of the main predictions of the acculturating contexts hypothesis.

ACCULTURATING CONTEXTS

The work on acculturation and adaptation (Castro 2003) within cross-cultural psychology provides a strong theoretical basis for (1) the identification of concrete dimensions of the cultural impacts and threat of immigration, and (2) the translation of the defended neighborhoods hypothesis to the domain of intercultural relations and the case of opinion on immigration. Of primary concern to this research is the individual's adaptation and adjustment to residing in an environment undergoing acculturation, defined as large scale sociocultural change due to novel contact between culturally distinct groups. Within this literature, adaptation is conceptualized as an individual's degree of adjustment to the prevailing conditions within their environment, and is characterized by the level of "fit" between the individual and their surrounding sociocultural context (Berry 1970, 1997; Castro 2003). The concept of "fit" within this body of work pertains to psychological and sociocultural adaptation to one's environment (Ward and Kennedy 1993), with the former involving feelings of belonging to one's community, social trust, and satisfaction with life (Berry 1970, 1997; LaFromboise, Coleman, and Gerton 1993), and the later involving the ability to effectively interact and communicate with cultural outgroups (i.e., sociocultural competence) (Castro 2003; La Fromboise et al. 1993; Ward and Rana-Deuba 1999). The

acculturation literature contends that individuals are susceptible to experiencing "culture shock" (Furnham and Bochner 1986; Oberg 1960) or "acculturative stress" (Berry 1970, 1997), characterized as the stress to the individual resulting from the diminution of psychological and sociocultural adaptation, when the environments they reside in undergo drastic and unprecedented cultural change. According to this work, the experience of shock or stress is linked to the degree in which the presence of individuals possessing unfamiliar language and culture serve to displace one's preexisting and familiar sociocultural environment and require adaptation and adjustment to a more unfamiliar and culturally diverse social landscape.

Paralleling the defended neighborhoods hypothesis, the acculturation and adaptation framework suggests that the experience of culture shock or stress is more likely to be linked to a change from ethnic homogeneity to moderate diversity than it is to a change from moderate to more ethnic diversity within one's local context. In the former case (i.e., acculturating contexts), residents are argued to experience a jarring displacement of their habituated homogeneous sociocultural environment due to the novel emergence of unfamiliar immigrant groups and foreign culture. In the latter case (i.e., acculturated contexts), growth in the size of cultural minority groups should presumably produce less shock or stress to long-term residents because the disruption of cultural homogeneity has previously occurred, and individuals residing in these already diverse contexts are likely to be more exposed and acclimated to higher levels of cultural diversity. In short, the literature on acculturation and adaptation provides a strong theoretical basis for identifying the conditions under which a growing immigrant population within Americans' local contexts should threaten residents' psychological and sociocultural adaptation and thus lead to the experience of culture shock or acculturative stress.

The acculturation framework offers a conceptualization of cultural threat that can be theoretically distinguished from the current symbolic conceptualization in terms of the level of threat, the object being threatened, and the sources of the threat. Within the acculturation framework, the threats triggered by residing within an acculturating environment pertain to self-based vs. group-based outcomes, where threats to one's sociocultural adaptation and the experience of acculturative stress are personal and distinct from concern over group identity, which leading research argues "inherently is a collective-level threat" (Sniderman et al. 2004, 37). Second, the objects being threatened within the acculturation framework are pragmatic rather than symbolic, pertaining to practical results, such as effectively interacting with outgroups and feeling comfortable in one's surrounding environment, rather than abstract results, such as maintaining the status and distinctiveness of group identity. Last, the sources of threat within the acculturation framework are linked to the objective contextual process of acculturation, rather than to processes operating within the individual, which need not have any linkage to real context-bound intergroup processes. These distinguishable features of a conceptualization of cultural threat rooted in the contextual process of acculturation push the concept well beyond its current constitution in the opinion literature as a symbolic threat.

Drawing upon the work on acculturation and adaptation, and extending it to an explicit theory of the contextual bases of cultural threat and prediction regarding the impact of ethnic context on Americans' attitudes toward immigration, this article offers the ***acculturating contexts hypothesis***. This hypothesis offers the following predictions:

(***H1***): *A large over-time growth in an immigrant population should lead to augmented perceptions of cultural threat in contexts with a very small initial size of the immigrant*

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group. As the preexisting size of an immigrant group increases, the over time growth in this population should lead to reduced threat.

(**H2**): *Residing in an acculturating context should increase support for restrictive immigration policy through heightening the perception of cultural threat.*

The first prediction connects residing in an acculturating context, and the presumed experience of shock or stress in response to novel cultural change, to the perception that immigrants are culturally threatening. The second prediction argues that residing in an acculturating context will bolster support for anti-immigration policy by enhancing cultural threat perceptions[4]. As noted above, extant contextual theories, such as the power threat hypothesis, suggest that larger immigrant populations and greater presumed competition over resources will be translated into anti-immigrant policy support via the perception of material threat from immigrants. While the acculturating contexts hypothesis departs from extant threat hypotheses, the expectation of a mediated link between ethnic context and policy attitudes is analytically consistent with these theories and supported by recent work demonstrating that threat perceptions mediate the effect of threatening intercultural experiences on immigration policies preferences (Newman, Hartman, and Taber 2012). In sum, the acculturating contexts hypothesis pushes the concept of cultural threat beyond its current symbolic conceptualization by emphasizing residing in an acculturating context as a tangible, contextual source of threat perception. Additionally, the hypothesis pushes beyond existing contextual theories of opinion on immigration by focusing on over-time growth in immigrant populations *in conjunction* with

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[4] Otherwise known as a "mediated moderated effect" (Baron and Kenny 1986), where the effect of immigrant growth (the treatment) on policy attitudes (the outcome variable) is moderated by initial immigrant group size, and the moderated effect of growth on attitudes is mediated by cultural threat perceptions.

their initial size, and stipulating an *indirect effect* for context on policy attitudes through its impact on cultural threat perceptions.

One key theoretical concern with the acculturating contexts hypothesis that needs to be addressed is that the threatened response it predicts in high growth/low initial immigration contexts (i.e. acculturating contexts) could be a function of the activation of general threat or prejudice in response to the first appearance of immigrants rather than culture shock, acculturative stress, or any other type of negative experience explicitly and uniquely linked to culture. Residing in high growth/low initial contexts may produce a diffuse, undifferentiated prejudice toward immigrants among long-time residents (Hopkins 2010; Taylor 1998). This undifferentiated prejudice could lead to general negative appraisals of the impacts of immigrants, which would manifest as higher levels of agreement with claims that immigrants take jobs, stress public coffers, increase crime, *and* threaten the culture. In moving from contexts lacking immigrants to those with established and continually growing cultural minority populations, threatened responses may diminish for reasons unrelated to the theorized reduction of culture shock and residents' acclimation to cultural diversity. Rather, the prejudice activated in response to the initial appearance of immigrants may have lessened as the prolonged presence of immigrants enables the type of significant, repeated, and high quality contact argued by contact theory to undermine negative stereotypes and attenuate prejudice. Additionally, prejudice in conjunction with residential self-selection may result in more prejudiced residents moving out of areas with large immigrant populations and more non-prejudiced and multicultural residents selecting into or remaining in diverse contexts.

One way of engaging these concerns would be to compare the conditional marginal effects of growth in an immigrant population upon cultural threat and other types of perceived

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threats of immigration. The perception of cultural threat, according to the acculturating contexts hypothesis, is driven by culturally oriented shock and stress, which is theorized to be most operative in acculturating contexts and least operative in high growth/high initial immigration contexts. If the theory underlying the acculturating contexts hypothesis holds, then the interactive dynamics of the hypothesis should uniquely map onto cultural threat perceptions but not onto non-cultural threats, such as those pertaining to the economy or crime. The perception of these latter types of threat, because they do not pertain to the "cultural" realm, should not have any unique tracking with the process of acculturation and adaptation. Rather, such threat perceptions should either have no relation to ethnic context, as suggested by extant research, or should be linked to immigrant growth regardless of prior levels of ethnic homogeneity, suggesting a resilient association between economic competition, crime, and increasing immigration in the minds of citizens.

The final prediction of the acculturating contexts hypothesis, then, is:

(**H3**): *The diminishing marginal effect of immigrant growth (when moving from low to high initial immigrant population contexts) hypothesized for cultural threat perceptions should NOT hold for non-cultural threat perceptions. Non-cultural threat perceptions, such as those pertaining to the economy or crime, should either have no relationship to ethnic context or should be unconditionally enhanced by immigrant growth*.

Finding this hypothesized divergence in the conditional marginal effects of immigrant growth on different threat measures would have several important theoretical implications. First, it would support the underlying assumption that qualitatively distinct types of concerns over immigration exist in the minds of citizens. Second, it would counter-argue initial prejudice and

over-time contact and prejudice reduction as an alternative to acculturation and acclimation in explaining the pattern of marginal effects for immigrant growth on cultural threat perceptions predicted by the acculturating contexts hypothesis. And third, it would suggest against prejudice in conjunction with residential self-selection as an additional theoretically plausible alternative explanation. If less prejudiced Whites choose over time to move into or remain in more culturally diverse contexts, and items tapping distinct threat perceptions are nothing more than measures of blanket prejudice, then all types of perceived threat should be lower among the presumably non-prejudiced Whites residing in high growth/high initial immigration contexts. Finding some types of threat and not others among Whites residing in these contexts would not only undermine the notion of a singular latent prejudice uniformly motivating presumably different threat perceptions, but would also ameliorate the concern that this latent prejudice is shaping which contexts citizens are choosing to live.

DATA AND METHODS

The 2005 Citizenship, Involvement, Democracy Study (CID) conducted by the Center for Democracy and Civil Society at Georgetown University (Howard, Gibson, and Stolle 2005), serves as the national opinion data used to test the main predictions of the acculturating contexts hypothesis. This survey is comprised of 1,001 face-to-face interviews of adult Americans throughout the contiguous United States. The survey was conducted between May 16 and July 19, 2005, and employed a cluster-sample design, achieving an overall response rate of 40 percent. Of the 1,001 survey respondents, 725 identified their race as non-Hispanic, White. In keeping with prior opinion research on immigration aimed at assessing the dynamics of opinion among the Anglo majority toward immigrant minorities (Brader, Valentino, and Suhay 2008; Campbell et al. 2006; Citrin et al. 1990; Hood and Morris 1997; Hood and Morris 1998; Hood

and Morris 2000; Rocha and Espino 2009; Stein et al. 2000; Tolbert and Grummel 2003), the present analysis restricts its focus to these White respondents. In addition to analyzing opinion among Whites only, the acculturating contexts hypothesis will be tested within the context of Hispanic immigration, where over-time growth and initial sizes in Hispanic populations will serve as the main measures of respondents' ethnic context[5].

To measure acculturating contexts, data from the 1990 and 2000 Decennial Censuses conducted by the U.S. Census Bureau was utilized to obtain information about the size and growth of local Hispanic populations. The CID contains information about the county and state of residence for each survey respondent; given this, county was selected as the measure of local ethnic context, which is in-line with and defended by leading opinion research on immigration (Campbell et al. 2006; Citrin et al. 1990; Hood and Morris 1997; Hopkins 2010).[6] Overall, White respondents from 104 different counties dispersed across 36 states are included in the analysis. *Hispanic 1990* is the measure of the percent Hispanic in each respondent's county of residence in 1990 (*M*=5.92%, *SD*=9.65%, Min=.25%, Max=49.47%). Using the 2000 census to obtain the percent Hispanic in each respondent's county in 2000, a difference variable, labeled *Hispanic Growth*, was created by subtracting the percent Hispanic in 1990 from the 2000 values

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[5]For a full justification for using the Hispanic population to test theory pertaining to immigrants, see Supplemental Appendix A.

[6] As noted by past research in the field, the choice of appropriate geographic unit of measurement is a perennial question, typically informed by both theoretical and practical concerns. While I use county in my analyses, Census data is available for smaller units, such as zip code or tract. However, in contrast to analyses that employ these smaller units of analysis (e.g. Oliver and Mendelberg 2000; Oliver and Wong 2003), my analysis is concerned with measuring changes in, rather than the contemporaneous size of, minority populations. At present, little to no research exists that analyzes the effects of over-time change with units below the county-level, and this is primarily due to the fact that zip codes, and to a lesser extent, census tracts, change frequently and often dramatically between Census surveys. Within my data, there are many respondents reporting residence in zip codes that were not classified the same or did not exist in 1990. In the end, county is the smallest and best geographic unit available for my analysis due to limitations in the consistency and availability of data for sub-county units.

in each county (M=3.17%, SD=3.14%, Min=-.43%, Max=12.8%).[7] Growth in the Hispanic

population within the counties in this sample ranges from three counties whose Hispanic

populations declined by less than half a percentage point (Kings County, NY; Orleans Parish,

LA; and Santa Fe County, NM) to Dallas County, TX, whose Hispanic population grew by 12.8

percentage points. Hispanic Growth and Hispanic 1990 are correlated at .56, indicating the

general tendency for larger growth to occur in counties with larger preexisting populations,

which is likely due to a combination of chain migration and high birth rates.

Consistent with the defended neighborhoods hypothesis, the acculturating contexts

hypothesis is operationalized with an interaction between Hispanic Growth and Hispanic 1990.

Moderated regression analysis is employed to analyze the marginal effect of growth in the

county Hispanic population across the range of values for the size of the county Hispanic

population in 1990. Substantively, this operationalization allows for the assessment of the effect

of growth in the Hispanic population from 1990 to 2000 in counties with minimal preexisting

Hispanic populations (i.e. acculturating contexts), in counties with moderate levels of Hispanics

in 1990, and in those with the highest amount of Hispanics in 1990. For ease of interpretation,

Hispanic 1990 and Hispanic Growth were recoded to range from 0 to 1 and the multiplicative

term was created from these recoded variables.

To measure individual perceptions of cultural threat, the analysis relied upon an item in

the CID tapping whether respondents believe that "America's cultural life is undermined or

enriched by people coming to live here from other countries." This item is comparable to

measures of cultural threat in leading opinion research (e.g., Citrin et al. 1997; Sniderman et al.

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[7] Leading studies on ethnic change in political science and sociology measure change over time spans roughly
comparable in length to the one we selected (see Alexseev 2006; Citrin, Reingold, Walters, and Green 1990;
Hopkins 2010; Green et al. 1998).

2004). This item has 11 response options, ranging from 0-"cultural life undermined" to 10-"cultural life enriched." This item was recoded to range from 0 to 1 (1=cultural life undermined).

To test **H3**, I use two additional items in the data that will serve as measures of non-cultural types of immigration-related threat. The first of these items will serve as a measure of economic threat; this item asked respondents the following question: "Most people who come to live in the U.S. work, pay taxes, and use health and social services. Do you think people who come here to live take out more than they put in or put in more than they take out?" The 11 response options for this threat item ranged from 0-"Generally take out more," to 10-"Generally put in more." This item was recoded to range from 0 to 1 (1=take out more). The second item tapped perceptions of the threat posed by immigration in terms of crime; respondents were asked the question: "Do you think America's crime problems are made worse or better by people coming here to live from other countries?" Similar to the two other threat items, this item had 11 response options and was recoded to range from 0 to1, with high values indicate higher threat perception (1=crime problems made worse).

To measure immigration policy preferences, this analysis relied upon a standard item in the opinion research tapping preferences over the amount of legal immigration allowed by government into the country. Respondents in the survey were asked the question: "Should the number of immigrants from foreign countries permitted to come to the U.S. to live be increased a lot, increased a little, left the same as it is now, decreased a little, or decreased a lot?" Consistent with prior research asking this question, the modal response to this question was to leave things as they are now, with a skew in the data in favor of decreasing the amount of immigration. This 5 category item was coded to range from permissive to restrictive policy preferences (5= immigration decreased a lot).

Several theoretically relevant contextual- and individual-level controls were included in the analysis. First, prior research suggests that the economic and political environment surrounding citizens may both exert distinct influences on their attitudes toward immigration (Campbell et al. 2006). Data from the Bureau of Labor Statistics was utilized to create a measure of the unemployment rate in each respondent's county in 2005. The resulting variable is coded to range from low to high county unemployment. The second contextual variable captures the political climate surrounding respondents by measuring the percent of registered voters in a respondent's county voting for Bush in the 2004 Presidential Election[8]. Turning to individual-level controls, all analyses included standard measures of education, income, gender (1=Male), age, citizenship status (dichotomous; 1=born in the U.S.), employment status (1=Unemployed), pocketbook economic evaluations (1=experiencing financial distress), party identification (standard 7 point scale; 7=strong Republican), and ideological self-identification (11 points scale; 11=very Conservative).

Beyond these standard controls, several additional individual-level factors have been identified in the literature for shaping general attitudes toward immigrants. Of these, prejudice (Citrin et al. 1997; Huddy and Sears 1995) and the strength of national identity (Sides and Citrin 2007; Sniderman et al. 2004) stand out as likely predictors of both immigration threat perceptions and policy preferences. All analyses include an 11 category measure of general negative affect toward Hispanics, *Hispanic Affect*, with high values indicating strong dislike for Hispanics. Given the present critique of cultural threat, and the argument that residing in an acculturating context should serve as a tangible source of cultural threat that is separate from identity oriented concerns, controlling for national identity is essential. A measure of the strength

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[8] This data was retrieved from the CNN 2004 Election Results cite listing vote results by county and state. For information, see: http://www.cnn.com/ELECTION/2004/

of *National Identity* was included in all analyses (1=strong national identity). In addition to prejudice and national identity, research has demonstrated that personality traits, such as authoritarianism, can influence threat perceptions and opinion on immigration (Hetherington and Weiler 2009); all models include a control for *Right Wing Authoritarianism*. Last, intergroup contact theory suggests that having friends who are immigrants may reduce threat perceptions and increase support for permissive policy positions. To control for this possibility, all analyses included a dichotomous measure of whether or not respondents' report having any close friends who are recent immigrants (1=has immigrant friends). For ease of interpretation, all contextual and individual-level independent variables were recoded to range from 0 to 1[9].

Analytic Strategy

The first and third predictions of the acculturating contexts hypothesis pertain to the impact of context on individual threat perceptions. To test *H1* and *H3*, moderated regression analyses were conducted to assess the impact of Hispanic growth conditional upon varying levels of the 1990 county Hispanic population.[10] Due to the two-level hierarchical structure of the data, where individual White survey respondents are embedded within counties, and county-level variables are being used to predict individual threat perceptions, random intercept models were used to conduct the moderated regression analyses. To test the second prediction of the acculturating contexts hypothesis (*H2*), structural equation modeling was used to estimate the indirect effect of Hispanic Growth on Whites' preferred amount of immigration. The structural equation model (SEM) for this analysis simultaneously estimated the regression of (1) cultural

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[9] For more information about variable measurement and question wording, please see Supplemental Appendix B.
[10] Given that my hypothesis predicts that the expected value of Cultural Threat associated with a unit change in Hispanic Growth will vary according to the value of another independent variable in my equation—Hispanic 1990—the specification of an interactive model is necessary given that a non-interactive model would not only prevent me from exploring this hypothesis, but would also, according to my theoretical expectations, violate the additivity assumption implicit in the basic regression model (Berry and Feldman 1985).

threat on all county and individual-level predictors and (2) the preferred amount of immigration on cultural threat and all county and individual-level predictors. In addition to enabling the estimation of the indirect effect of Hispanic Growth on preferred amounts of immigration via its impact on cultural threat perceptions, SEMs can allow for the specification of categorical variables (e.g., see Iacobucci 2008) and the use of multilevel regression models (Preacher, Zyphur, and Zhang 2010) to provide more accurate statistical tests for mediation. To account for the ordinal nature of the immigration policy variable and the multilevel nature of the data, I used an ordered logit link function for the policy model and estimated a random intercept multilevel mediational SEM in the software package Mplus® (Muthén and Muthén 2007).

RESULTS

Table 1 lists the results for the threat perception models; the results provide strong support for the acculturating contexts hypothesis.[11] The results in the first column reveal that a large growth in the county Hispanic population from 1990 to 2000 leads to significantly higher cultural threat perceptions among Whites residing in counties with minimal Hispanic presence in 1990. In addition to being highly statistically significant, this effect is substantively large. To get a sense of the full size of this effect, the predicted value of cultural threat with minimum Hispanic growth, when the 1990 Hispanic population is at its minimum and holding all other variables at their means, is .34. At maximum Hispanic growth, however, when the 1990 Hispanic population is similarly at its minimum and all other variables are held constant, the predicted value of cultural threat is .62. Thus, moving from the minimum to the maximum

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[11] This analysis utilized multilevel random intercept models over a "completely pooled" approach to control for unobserved heterogeneity between the counties. This decision is justified given the significant LR test indicating that level-2 variance is not zero and that there is statistically significant unobserved heterogeneity at the county level. However, the size of the rho estimates indicate that a small amount of total error is being accounted for by level 2 variation in each model, and regression analysis of each threat model using OLS produced extremely similar inferences to the multilevel model estimates.

TABLE 1. **Acculturating Contexts and Threat Perceptions Among Whites**
(2005 U.S. Citizenship, Involvement, Democracy Survey)

	Cultural Threat		Economic Threat		Crime Threat	
County-Level						
Hispanic Growth	.282***	(.071)	.179*	(.076)	.156*	(.067)
Hispanic 1990	.080	(.088)	-.039	(.094)	.051	(.083)
(Growth) x (1990)	-.582**	(.208)	-.305	(.221)	-.173	(.194)
Bush Vote 2004	.129*	(.053)	.102	(.057)	.100*	(.050)
Unemployment Rate	.118	(.093)	.176	(.099)	.141	(.086)
Individual-Level						
Education	-.112***	(.031)	-.013	(.033)	-.033	(.028)
Income	.070	(.041)	.037	(.043)	-.012	(.037)
Age	.015	(.034)	.006	(.036)	-.004	(.031)
Male	.013	(.015)	.000	(.016)	.008	(.014)
Unemployed	-.015	(.032)	-.001	(.034)	-.027	(.029)
Born in U.S.	.073	(.050)	.098	(.053)	.000	(.045)
Party ID	.017	(.025)	-.016	(.026)	-.014	(.022)
Ideology	.086*	(.040)	.099*	(.042)	.047	(.036)
Pocket Book Evaluations	.127***	(.033)	.090*	(.035)	.011	(.030)
Hispanic Affect	.135**	(.043)	.177***	(.046)	.202***	(.039)
National Identity	.023	(.050)	.112*	(.053)	.104*	(.045)
Right Wing Authoritarianism	.414***	(.057)	.306***	(.060)	.289***	(.051)
Immigrant Friends	.010	(.025)	.038	(.026)	.010	(.022)
Level-2 (County) Error Variance	.003	(.001)	.004	(.001)	.003	(.001)
Level-1 (Individual) Error Variance	.038	(.002)	.042	(.002)	.030	(.002)
Rho	.082		.083		.098	
Likelihood Ratio Test	10.23***		11.88***		16.392***	
# of Individuals (Level-1 Units)	725		725		725	
# of Counties (Level-2 Units)	104		104		104	

Notes: Entries are unstandardized regression coefficients from random-intercept regression models estimated using restricted maximum likelihood. Threat dependent variables were recoded to range from 0 to 1. Likelihood Ratio Test compares the random intercept model to a "completely pooled" model, testing against the null hypothesis that level-2 error variance is equal to zero. * significant at .05, ** significant at .01, *** significant at .001. Reported significance is based upon two-tailed hypothesis tests.

value of Hispanic growth among the least Hispanic counties in 1990 resulted in a .28 increase in cultural threat perceptions among Whites, or a change of 28 percentage points on the 0 to 1 scale of the dependent variable.

The results in the second row reveal that when Hispanic growth is at its minimum, an increase in the 1990 Hispanic population has no effect on threat perception among Whites. The interaction term, listed in the third row of the results, however, is negative and statistically significant, indicating that the marginal effect of Hispanic growth on cultural threat perceptions decreases to zero and reverses in sign among Whites residing in counties with ever higher preexisting Hispanic populations.[12] To get a rough sense of this interaction, recall that the predicted value of cultural threat among Whites residing in counties with maximum Hispanic growth and minimum 1990 Hispanic populations is .62. Compare this to the predicted value of .11 for Whites residing in counties with maximum Hispanic growth and maximum 1990 Hispanic populations—again, holding all controls at the means. The difference in the marginal effect of Hispanic growth on cultural threat perceptions between the most homogenous and heterogeneous counties (as measured by Hispanic population) is .51, which represents a decrease of just over half of the entire range of the 0 to 1 scale of the dependent variable. From first glance, these significant and substantively large effects provide strong support for an acculturation based conceptualization of cultural threat.[13]

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[12] An anonymous reviewer suggested the possibility that several qualities of Hispanic populations that may vary with group size, such as the degree of cultural assimilation or diversity (i.e. national origins), may be responsible for driving the effects, and thus serve as the true moderators rather than mere 1990 Hispanic population size. For further discussion of these possibilities and to view results from additional analysis that suggests against these possibilities in favor of the acculturating contexts hypothesis, see Supplemental Appendix C.

[13] One potential concern with these results pertains to whether or not respondents actually experienced the effect of Hispanic Growth (i.e. "the treatment") by residing in the same county between 1990 to 2005. The CID includes a question asking respondents about their length of residence in years at their current location. When the analyses was re-run among respondents reporting living at their current residence for 15 years or more, the results for the Cultural

To get a better sense of these substantive effects, Figure 1 displays the marginal effects of Hispanic growth on cultural threat perception across a range of percentile values for 1990 county Hispanic population figures. The y-axis in Figure 1 is the predicted value of cultural threat and the x-axis is Hispanic growth. The different plot lines correspond to the 5th, 25th, 50th, 75th, 90th, and 95th percentile values of 1990 county Hispanic population size. The slopes for Hispanic growth at the 5th and 25th percentile values of Hispanic 1990 clearly illustrates the difference in cultural threat for low and high levels of growth among counties with relatively small 1990 Hispanic populations. The drastic vertical decline in cultural threat between high growth counties with 5th and 95th percentile values of Hispanic baseline graphically illustrates the magnitude of the interaction between Hispanic growth and baseline 1990 levels.

The following illustrative example provides some geographic identity to these results. Scott County, MS (major population center is Forest), whose 1990 and 2000 Hispanic population figures are about .58 and 6 percent, is placed above the 75th percentile value of growth and below the 25th percentile value of 1990 population sizes. Placing all other county-level variables at their true values and holding all individual-level variables at their means, the predicted value of cultural threat among Whites residing in Scott County is .49. Compare this to Yuma County, AZ (major population center is city of Yuma), whose respective Hispanic population sizes in 1990 and 2000 were about 40.5 and 50.5 percent. This roughly 10 percentage point decade growth also places Yuma above the 75th percentile in growth; however, its large 1990 Hispanic population situates it above the 75th percentile of 1990 county Hispanic population sizes as well. Compared to Scott County, the predicted value of cultural threat among Whites in Yuma County is .25 (again, setting all other county-level variables at their true values and all individual-level

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Threat model remain intact, while the results for the Economic and Crime Threat models worsen, such that Hispanic Growth registers no significant effects, and no significant interactions are detected.

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**Figure 1.   Effect of Hispanic Growth on Cultural Threat
                At Varying Percentiles of Percent Hispanic 1990**
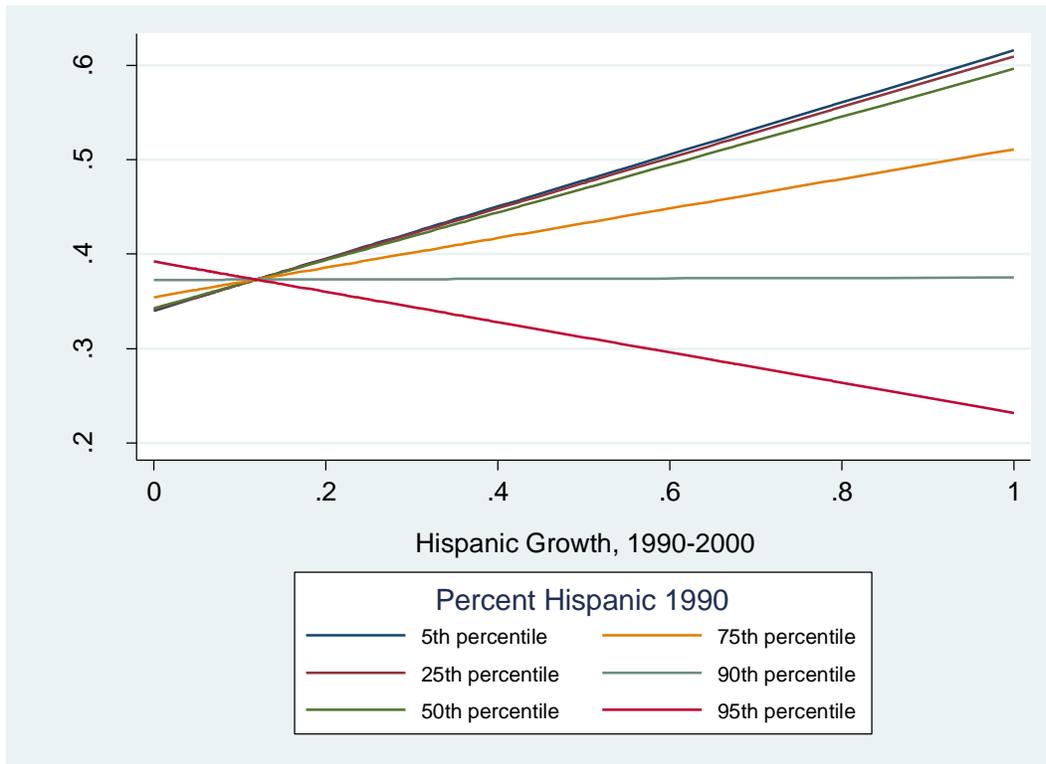
controls at their means). Scott and Yuma County both experienced relatively high levels of growth in their Hispanic populations, yet the different initial ethnic compositions of these counties result in substantially different amounts of perceived cultural threat over immigration among its White residents.

Turning to the controls, the results in column 1 reveal that residing in a more right leaning political context increases the perception of cultural threat among Whites, while county unemployment had no effect on cultural threat perceptions. Of the individual-level controls in the model, having higher levels of education decreased cultural threat perceptions, while earning a higher income, experiencing personal financial distress, being ideologically conservative, possessing strong negative affect for Hispanics, and registering higher in authoritarianism, were each associated with a significant increase in the perception that immigrants pose a cultural threat. Interestingly, the strength of American identity among Whites had no effect on their perception that immigrants threaten the American culture. This finding is contrary to what would be expected based upon the symbolic and identity-oriented conceptualization of cultural threat, which would suggest that concerns over the maintenance of cultural identity would be associated with the strength of this identity. The important point to make, however, is that residing in an acculturating context serves as a distinct and significant source of cultural threat, and this effect holds up after controlling for identity and a slew of other contextual- and individual-level factors.

The Mediated Effect of Context on Policy Attitude

Turning to the analysis of the indirect effect of context on immigration policy preferences, the results from the structural equation model are depicted in Panel A of Figure 2. The results from the SEM model reveal that residing in an acculturating context (i.e., moving

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from the minimum to the maximum of Hispanic Growth when percent Hispanic 1990 is at its minimum) exerts a significant direct effect on cultural threat perceptions and a significant indirect effect on the preferred amount of immigration via its impact on cultural threat. The path along the bottom of the figure indicates that context did not exert any significant effect on policy attitudes. In sum, the path analysis reveals that, by triggering the perception that immigrants pose a threat to the American culture, residing in a county with high Hispanic growth and a minimal 1990 Hispanic population indirectly augments support among Whites for a government policy of decreasing the amount of immigration into the nation. These results provide support for *H2* and demonstrate a more nuanced relationship between ethnic context and immigration policy preferences than previously explored within the opinion research. As noted above, the causal chain underlying immigration policy attitudes stipulated in the bulk of the opinion research begins with subjective threat perceptions and uses these perceptions to predict policy preferences—little room in such analyses is given to assessing the sources of threat perception. In comparison, the present analysis begins further "back" in the causal chain by exploring how objective contextual factors influence threat perceptions, and how these in turn shape immigration policy preferences.

Context and Different Types of Threat

Last, the analysis turns to the comparative effects of ethnic context on the perception of cultural and non-cultural threats. The second and third columns in Table 1 display the results for the economic and crime threat models. As can be seen, the interaction argued by the acculturating contexts hypothesis holds for cultural threat but not for these two types of non-cultural, immigration-related threats. The results for these two models reveal that growth in the Hispanic population triggers concerns associated with the economy and crime, but the

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Figure 2. Path Analysis of Ethnic Context, Cultural Threat, and Policy Preference

Panel A. 2005 CID Data
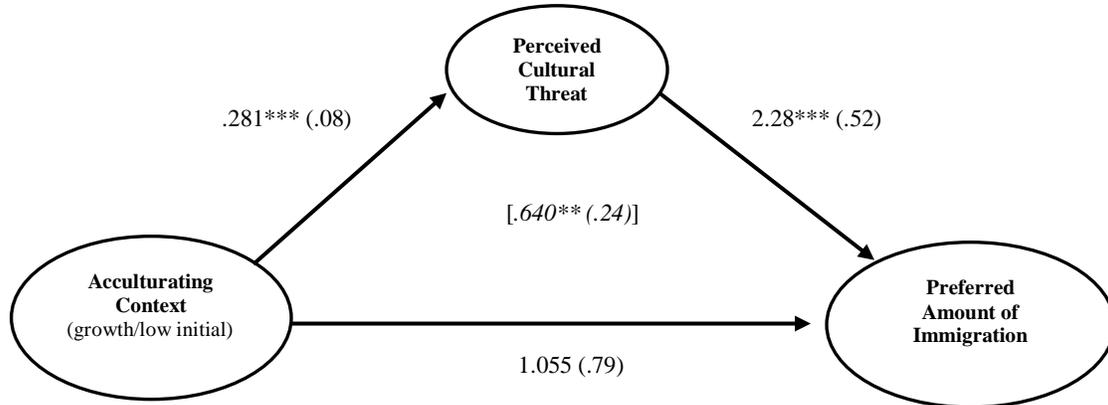
Notes: Results are from a Multilevel Mediational Structural Equation Model estimated in Mplus (v.5.21). Entries are unstandardized regression coefficients. The Cultural Threat and Amount Immigration Models each contained controls for county political context, county unemployment, education, income, age, gender, employment status, place of birth, party ID, ideology, pocketbook evaluations, Hispanic affect, national identity, right wing authoritarianism, and intimate social contact with immigrants. All coefficients and standard errors located along arrowed path lines are direct effects; italicized coefficient and standard error in brackets is the indirect effect of Acculturating Context on Preferred Amount of Immigration through Perceived Cultural Threat. **p<.01, ***p<.001.

Panel B. 2006 Pew Research Center Poll on Immigration
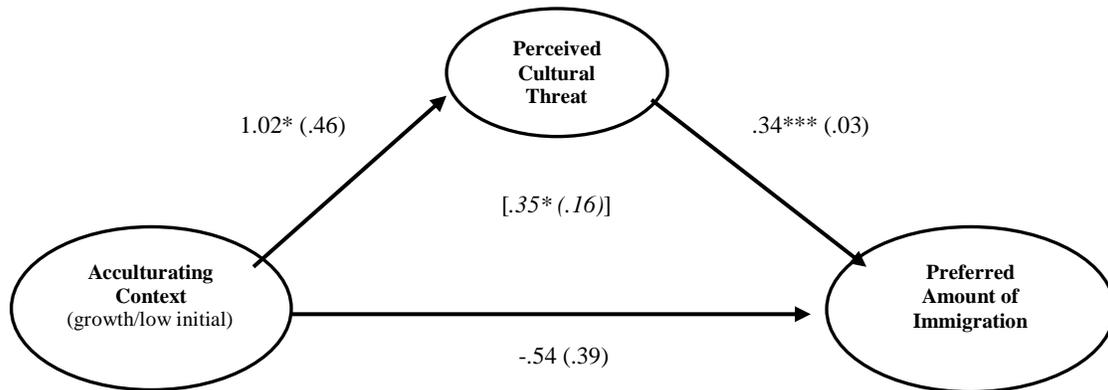
Notes: Results are from a Mediational Structural Equation Model estimated in Mplus (v.5.21). Entries are unstandardized regression coefficients. The Cultural Threat and Amount Immigration Models each contained controls for education, income, age, gender, employment status, place of birth, party ID, ideology, sociotropic, pocketbook, and local job market evaluations, Hispanic affect, and intimate social contact with immigrants. All coefficients and standard errors located along arrowed path lines are direct effects; italicized coefficient and standard error in brackets is the indirect effect of Acculturating Context on Preferred Amount of Immigration through Perceived Cultural Threat. **p<.01, ***p<.001.

insignificant interaction terms indicate that this effect is not conditional upon whether growth represents a "first appearance" of Hispanics or the extension of a sizeable extant Hispanic population. Simply stated, the activation of concern among Whites that immigrants take jobs, raise taxes, or increase crime, appears to be linked to observing an expanding Hispanic population in the local community and these concerns are not dampened by long-term residential proximity to, and thus presumed contact with, Hispanics. The acculturation framework would suggest that while concern over culture subsides as Whites acclimate to residing around larger Hispanic populations, they nonetheless retain in the face of Hispanic growth their concern over immigrant competition for economic resources or engagement in criminal behavior.

In addition to lending support for *H3*, the results of the three threat models provide a basis for counter-arguing prejudice and residential self-selection as an alternative to the acculturating contexts hypothesis in explaining the results for cultural threat. First, the results of the cultural threat model alone provide some grounds for arguing against residential self-selection. The residential self-selection position would argue that the decline in threat perception among Whites in extremely heterogeneous counties with growing and large preexisting Hispanic populations is a function of prejudiced Whites moving out and un-prejudiced Whites remaining or moving in. Figure 1, however, reveals that among Whites residing in low Hispanic growth counties, perceived threat was nearly the same for the presumably prejudiced Whites in low initial counties and the presumably unprejudiced Whites in counties that were heavily Hispanic in 1990. If ethnic prejudice was an operative factor in shaping the ethnic context one resides, and measures of cultural threat are nothing more than indicators of latent general prejudice toward immigrants and ethnic minorities, then we should expect Whites in low growth/low initial

counties to be much more threatened than Whites residing in low growth/high initial counties. This pattern is simply not born out in the data.

A further argument against prejudice and residential self-selection is found in the comparative results for context and the different types of threat. The prejudice and self-selection argument would suggest that all kinds of threat would be lower among Whites residing in ethnically diverse contexts because they are presumably less prejudiced and threat perception items, by their common reference to immigrants, simply tap Whites' underlying prejudice toward immigrant minorities. This, however, is also not found in the data; rather, the results reveal that while cultural threat decreases as Hispanic growth occurs in counties with higher prior levels of ethnic diversity, threats concerning the economy and crime do not. This finding lends support to the contention that acculturation and culture shock serve as unique concrete bases for cultural threat, but not for threats unrelated to culture. In already diverse contexts where growth is theorized to produce less cultural shock or stress, the perception of cultural threat is much lower. In similar contexts, however, economic and crime threat are not lower, suggesting that these items genuinely tap distinct concerns pertaining to immigration and that mechanisms other than acculturation and shock are at work in shaping the pattern of results for these non-cultural types of threat.

Replication of Results

To test the robustness of these results, replication analyses were performed using the 2006 Pew Research Center Poll on Immigration.[14] While not entirely comparable to the 2005

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[14] This national survey contained a total of N=6,003 adult respondents, relied upon telephone interviews conducted between February 8th and March 7th, 2006, and contains oversamples of adults from Chicago, Las Vegas, Phoenix, Washington D.C., and Raleigh-Durham. Of the 6,003 respondents, 4,142 identified themselves as non-Hispanic white. Further, this survey contained two questionnaire forms randomly assigned to survey respondents.

CID data, this national survey does provide the county of residence for each respondent, as well as contain measures of cultural, economic, and crime threat, as well as preferences over the amount of immigration. The key variables included in analyses performed on CID data that are not available in the Pew survey are the strength of national identity and right-wing authoritarianism; this shortcoming aside, the Pew survey does contain enough data to provide an opportunity to replicate the results from the CID. The results from the replication analysis are presented in Table 2; for more information about measurement and question wording, see Supplemental Appendix D. The results presented in Table 2 strongly reinforce those from the CID: (1) growth in the county-level Hispanic population between 1990 to 2000 was associated with a significant increase in cultural threat perceptions among whites residing in counties whose 1990 Hispanic populations were of minimal size, (2) a significant interaction was found between Hispanic Growth and Hispanic 1990, such that the effect of Hispanic Growth is significantly attenuated and then reversed as the 1990 Hispanic population size in a county increases, and (3) the significant interaction found for cultural threat perceptions did not hold for measures of economic and crime threat; as was found in the CID data, these latter types of threat are unconditionally enhanced by Hispanic Growth. Turning to the indirect effect of context on policy preferences, the results from a SEM analysis corroborate those from the CID (Panel B, Figure 2); namely, that Hispanic Growth in contexts with minimal 1990 Hispanic populations exerted a significant direct effect on cultural threat perceptions (b= 1.02, se=.46, p<.05), that an increase in the perception of cultural threat directly increased the probability of preferring decreased immigration (b=.34, se=.03, p<.000), that Hispanic Growth exerted an insignificant direct effect on policy attitudes (b= -.54, se=.39, n.s.), and that Hispanic Growth (when Hispanic

Unfortunately, key control variables, such as Hispanic Affect, were only available for measurement through questions asked on Form 1 of the survey. Thus, the replication analyses were conducted upon the N=2,070 non-Hispanic white respondents administered questionnaire Form 1.

TABLE 2.   **Acculturating Contexts and Threat Perceptions Among Whites**
(2006 Pew Research Center Poll on Immigration)

	Cultural Threat		Economic Threat		Crime Threat	
Contextual Variables						
Hispanic Growth	1.657*	(.745)	2.33**	(.897)	2.47***	(.755)
Hispanic 1990	3.429	(2.32)	2.39	(2.99)	1.93	(2.42)
(Growth) x (1990)	-10.99*	(5.48)	-9.59	(6.89)	-4.77	(5.62)
Individual Variables						
Education	-1.14***	(.215)	-1.29***	(.256)	-.720***	(.222)
Income	-.151	(.239)	-.155	(.291)	-.139	(.250)
Age	1.03***	(.250)	-.555†	(.303)	1.23***	(.259)
Male	.070	(.099)	.080	(.122)	.330***	(.104)
Unemployed	.086	(.368)	-.225	(.392)	.535	(.362)
Born in U.S.	.415	(.237)	.597	(.341)	-.029	(.242)
Party ID	.468**	(.140)	.053	(.167)	.463***	(.145)
Ideology	1.59***	(.265)	.822**	(.317)	1.43***	(.276)
Sociotropic Evaluations	.660**	(.212)	1.04***	(.259)	.254	(.219)
Pocket Book Evaluations	.138	(.226)	.707**	(.269)	.213	(.234)
Local Job Market Evaluations	.417**	(.121)	.543***	(.143)	.247*	(.126)
Hispanic Affect	2.48***	(.250)	1.88***	(.258)	2.67***	(.250)
Immigrant Friends & Family	.027	(.117)	-.111	(.154)	.013	(.124)
Constant	-3.28***	(.504)	-4.04***	(.633)	-4.12***	(.526)
Pseudo R²	.138		.128		.134	
Percent Correctly Predicted	66.09		81.11		70.15	
Proportional Reduction in Error	25.8		2.26		13.59	
N	2,070		2,070		2,070	

Notes: Entries are unstandardized regression coefficients from logistic regression models. "Completely Pooled" basic logistic regression models were used instead of random intercept logistic regression models because in the Cultural and Economic Threat models, Likelihood Ratio Tests confirmed the null hypothesis that level-2 error variance is equal to zero. In the case of Crime Threat, while the LR test provided evidence against the null hypothesis, the size of ρ was .02, suggesting a negligible difference between a multilevel approach to estimating model parameters and a "completely pooled," basic logistic regression approach. Threat dependent variables were recoded to range from 0 to 1. * significant at .05, ** significant at .01, *** significant at .001. Reported significance is based upon two-tailed hypothesis tests.

1990 is at its minimum) exerted a significant indirect effect on support for decreased immigration (b=.35, se=.16, p<.05).

CONCLUSION

While immigration continues to come in and out of the political limelight in the U.S. and Hispanics approach the majority in many local areas throughout the nation, nearly two decades of opinion research have fallen short in issuing a definitive statement about the effect of citizens' ethnic context on their immigration attitudes. Interestingly, while the pejorative phrase "the browning of America" is commonly used to describe an increase in the mixing of racial and ethnic groups in the U.S., opinion scholars within political science have failed to apply this phrase from the popular lexicon into developed theory and hypotheses regarding public opposition to immigration. Within the extant models of residential integration and intergroup relations, the defended neighborhoods hypothesis stands out as a primary academic translation of the "browning" concept into an account of intergroup conflict.

The acculturating contexts hypothesis extends the defended neighborhoods perspective into the domain of immigration by identifying residing in contexts undergoing drastic and unprecedented ethnic change as a tangible source of cultural threat. The results from the analyses demonstrate that the effect of increasing ethnic diversity—as indicated by growth in local Hispanic populations—is conditional upon how diverse an area is to begin with. In high growth/low initial counties, White residents are demonstrated to experience a higher degree of cultural threat, and through this, increased political opposition to immigration. In high growth/high initial contexts, White residents feel less culturally threatened, and in turn, are more politically permissive about immigration. Existing work argues that growing local immigrant

populations is a necessary but not sufficient condition for activating threat; Hopkins (2010) for example, argues that immigrant growth needs to be politicized by national news media in order to influence opinion on immigration. The results from the present analysis demonstrate that changes in immigrant populations do not require politicization by external political entities to influence opinion as long as change is analyzed in conjunction with baseline population sizes. These results represent an important contribution to the opinion literature on immigration, while also making a more general contribution to the study of opinion and political behavior by demonstrating the interplay of environment and cognition in shaping policy preferences.

The diverging marginal effects found for increasing ethnic diversity have important practical political implications as well. While immigration and increasing ethnic diversity will undoubtedly persist as facts of life in the United States, the results from the present analysis suggest that anti-immigrant sentiment and nativist resentment and hostility need not be permanent fixtures in the American socio-political landscape. Concerns over ethnic balkanization have been raised in response to the nations' growing Hispanic population, the strongly anti-immigrant positions of emerging Tea Party candidates, and the rising political significance and power of Hispanic constituencies. The results from the present analysis, however, suggest that concerns over ethnic fractionalization and conflict may be offset by the socially and culturally constructive effects of prolonged intercultural contact and natural processes of adaptation among the White majority to increasing levels of ethnic diversity.

A worthy direction for future research would be to corroborate the mechanisms underlying the acculturating contexts hypothesis, as well as to further differentiate the sources of different types of threat perceptions. For scholars interested in the environmental, contextual, or political sources of opinion, an interesting direction for future research would be to explore how

elite communication and media messages may serve as additional environmental factors potentially altering or disrupting the seemingly natural process of diversity acclimation and threat reduction observed in the present analysis. Alternately, it would be interesting to gain a more firm understanding of whether various types of local policies and programs, such as multicultural education and arts programming, as well cultural competence training in public and private sector professional occupations, serve to attenuate the negative effects of acculturation and facilitate Americans' acclimation and adjustment to increasing cultural diversity. For scholars interested in the role of personality in politics, exploring the role of individual differences in the possession of specific personality traits in shaping reactions to ethnic change would indeed make a for an interesting direction for future research.

Chapter 3: Contact with Unassimilated Immigrants, Cultural Threat, and Opinion on Immigration

The United States in growing more ethnically diverse year after year. Over the past few decades, the immigrant population in the United States grew from an estimated 19.7 million in 1990 to 38.5 million in 2009[15]. The Hispanic population, which is the most numerous and arguably the most salient immigrant group in the nation, increased by an estimated 46 percent between 2000 and 2010[16]. The growing ethnic diversity in the nation provides the backdrop for continued political conflict over immigration and its persistence as a key issue on the national political agenda. An issue of significant contention within the immigration debate is the determination of the negative impacts of immigration within the nation. Aside from well-known claims by anti-immigrant political elites and media pundits that immigrants take jobs, raise taxes, and increase crime, an increasingly prevalent and potent claim is that recent immigrants—particularly Hispanics—are failing to assimilate to American culture at the same rate as immigrants of the past (Huntingon, 2004). The putative failure of recent immigrants to culturally assimilate has been argued to pose an unprecedented challenge to American society.

Concern over the cultural impacts and assimilation of recent immigrants is likely enhanced by the increased prevalence of the Spanish language and non-English speaking immigrants. American businesses and government agencies are increasingly providing telephone and internet site services in both English and Spanish; a practice that is likely in accommodation of the 8 million Spanish speaking adults in the nation that speak little to no English. Indeed, of

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[15] Figures obtained from the U.S. Census Bureau's 1990 Decennial Census and 2009 American Community Survey.
[16] Figure obtained from the Pew Hispanic Center.

the adult population reporting speaking Spanish, the non-English speaking segment of this

population rose by nearly 4.6 million over the past two decades[17]. Among Mexican immigrants

alone, survey data collected between 2002 and 2006 reveals that 71 percent report lacking basic

English-language abilities[18].

Complimenting these figures and the accompanying concern over immigrant

assimilation, public opinion research over the past few decades has demonstrated that

apprehension over the cultural impacts of immigration strongly predict support for restrictive and

ethno-nativist immigration policies. Indeed, the belief that immigrants pose a threat to the

American culture, labeled cultural threat, has been found to outperform competing measures of

economic threat in accounting for anti-immigrant sentiment and policy support (Citrin, Reingold,

& Green, 1990; Citrin, Reingold, Walters, & Green, 1990; Citrin, Green, Muste, & Wong, 1997;

Hood & Morris 1997). The logical connection between assimilation and cultural threat is

apparent: immigrants are perceived to threaten the American culture because they are believed to

fail or refuse to learn English, adopt an American identity, and embrace key American values

and customs. Despite the increasing prevalence of unassimilated immigrants throughout the

country, the importance of cultural threat to explaining opinion on immigration, and the

connection between immigrant assimilation and cultural threat, scholarship has failed to directly

investigate the effects of actual personal contact with unassimilated immigrants on Americans'

opinions on immigration.

From a lay perspective, it seems entirely plausible, even intuitive, that contact with

unassimilated immigrants would heighten an individual's perception that immigrants threaten the

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[17] Figures obtained from the U.S. Census Bureau's 1990 Decennial Census and 2009 American Community Survey.
[18] Data were pooled from 6 national surveys of Hispanics from 2002 to 2006; see Pew Hispanic Center report "English Usage among Hispanics in the United States" (November 29, 2007).

American culture. This intuition, however, has not been subjected to any kind of direct empirical testing. One potential reason for this surprising omission is that cultural threat is largely conceptualized in the research as a symbolic and identity-oriented type of threat that, in keeping with symbolic politics (Sears, 1993) and social identity theory (Tajfel & Turner, 1979), need not have any correspondence to real assimilation outcomes, actual intercultural contact, or any tangible personal consequences of immigration. The failure to explore the effect of contact with unassimilated immigrants, thus, is underscored by a broader theoretical neglect of the cultural threats of immigration that revolve around distressing intercultural contact experiences rather than concern over identity, values, and other intangible objects.

To address these deficits in the literature, the present article develops a contact-based, realistic theory of cultural threat. This theory identifies intercultural contact involving threatening types of exposure to unfamiliar culture as a concrete form of cultural threat posed by immigrants to American citizens. According to this theory, the presence of cultural and linguistic barriers to intergroup interaction, which is linked to whether an immigrant is assimilated or not, should strongly determine whether contact with immigrants triggers threat. The main hypothesis tested in this paper, labeled the *contact-threat hypothesis*, predicts that contact with immigrants involving cultural or linguistic barriers to communication and exchange should generate negative emotions, which in turn, should heighten the perception that immigrants threaten the American culture and enhance support for anti-immigrant policies. Given the theoretical emphasis placed on exposure to unfamiliar culture and experienced barriers to intergroup interaction as the feature of contact generating threat, an additional hypothesis is deduced from the present theory to account for individual differences in susceptibility to threat in response to contact with unassimilated immigrants. The *diversity experiences hypothesis* argues that, prejudice and

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symbolic orientations aside, individuals with greater exposure to other cultures and languages, compared to those with more homogeneous cultural experiences, should be much less threatened by contact with unassimilated immigrants.

Utilizing the 2006 Pew Research Center Survey on Immigration, this article assesses the impact of intercultural contact and individual differences in cultural diversity experiences on the perception of cultural threat and preferences across a range of immigration policies. The first set of analyses demonstrate that, even after controlling for important competing factors such as economic concerns, ideology, and prejudice, threatening contact with unassimilated immigrants—operationalized as being "bothered" by encountering non-English speaking immigrants— enhances the perception that immigrants threaten the American culture and bolsters the holding of a variety of anti-immigrant policy positions. The second set of analyses demonstrates that having more heterogeneous cultural experiences—the ability to speak multiple languages, having immigrants in one's familial and/or social network, and residing in diverse metropolitan environments—significantly reduces the experience of negative emotions in response to contact with immigrants who do not speak English. Individual differences in diversity experiences, by influencing negative emotions and cultural threat, are found to exert important indirect effects on citizens' immigration policy preferences.

The results from this analysis contribute to the theoretical development of cultural threat and demonstrate the importance of concrete types of threatening contact experiences for public opinion on immigration. Further, the theoretical contribution and empirical findings of this article offer a potential reconciliation of the tension between theories of realistic group conflict and intergroup contact within the context of immigration. The contact-based framework presented in this article offers a basis for stipulating the nature of the threat experienced in

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response to contact and identifies what types of contact with what types of immigrants will lead to the experience of threat. The story that can be taken from the results of this article is one of cultural threat and acclimation. The analyses suggest that the experience of contact-based threat is a pliable phenomenon, acute among those with homogeneous cultural experiences but prospectively weakening over time as individual citizens acclimate to ethnic and cultural diversity, and possibly obtain new cross-cultural skills, competencies, and personal relationships. The primary implication for American politics is that conflict over immigration may best be characterized as a concave non-linear and spatially segmented process, where the gradual spatial diffusion of immigrants throughout the country is accompanied by initial reactionary nativist resistance that, as ethnic change and intercultural contact deepens, is supplanted over time by more moderate and then tolerant and permissive sentiment toward immigration.

EXPLAINING MASS ANTI-IMMIGRANT SENTIMENT

In attempting to explain public opposition to immigration, scholarship has long focused on the notion that hostility toward immigrants occurs in response to the threats posed by immigration. Within this threat-centered framework, scholars draw a conceptual distinction between threats that are realistic and materially oriented and those that are symbolic and culturally oriented (Citrin et al., 1990; Fetzer, 2000; Stephan, Ybarra, & Bachman, 1999; Sniderman, Hagendoorn, & Prior, 2004). Within the opinion literature, the former types of threat are theorized to spring from real economic competition and material conflict between native-born citizens and immigrant minorities, and are argued to take the form of job competition, the consumption of public goods and services, elevated taxes, and increased crime. The latter type of threat, rather than emerging from real material conflict between natives and immigrants, is theorized to revolve around native citizens' concern over the maintenance of collective cultural

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and national identities. Labeled cultural threat, this type of threat is argued to center upon the perception that immigrants threaten one's national identity, culture, and "way of life."

Within the existing literature, cultural threat is conceptualized as symbolic in nature because it is theorized to revolve around concern over putatively intangible objects, such as culture, identity, and the values, beliefs, and customs which serve as potent symbols of culture and identity (Citrin et al., 1990; Sniderman et al., 2004; Stephan et al., 1999). Concern over these intangible objects is contrasted in the literature to concern over more concrete material resources and outcomes, such as jobs, income, taxes, and crime. Beyond pertaining to threats to immaterial objects, the symbolic conceptualization of cultural threat extends to its theorized sources; while material and economic threats are believed to stem from real intergroup processes or one's objective economic vulnerability, cultural threat perceptions have largely been traced to factors operating within the individual. For example, existing research demonstrates that cultural threat perceptions stem from personality factors, such as self-esteem (Sniderman et al., 2004) and authoritarianism (Hetherington & Weiler, 2009), as well individuals' deeply ingrained symbolic orientations, such as religious affiliation (Fetzer, 2000) or ideology and national identity (Citrin et al., 1990). According to this symbolic framework, the perception that immigrants pose a threat to the American culture need not have any actual correspondence to real, objective factors, such as the size of local immigrant populations or personal contact with immigrants.

By referring to concern over immaterial objects and ostensibly emerging from factors operating primarily within the individual, cultural threat has largely been relegated to the realm of the unrealistic. A key deficit in the opinion literature on immigration at present is that scholarship has yet to firmly extend cultural threat beyond this symbolic conceptualization. This omission is puzzling given the highly intuitive nature of various concrete factors, such as contact

with recent immigrants and exposure to unfamiliar culture, as potential bases for the experience of cultural threat from immigration. Indeed, culturally conservative political elites, media pundits, and scholars alike argue that recent immigrants, such as Hispanics, are failing to assimilate, and thus pose an unprecedented threat to American culture (for example, see Huntington, 2004). Despite the salience of this claim within the immigration debate and its resonance among the American public, the opinion literature on immigration has yet to develop a theory of cultural threat that emphasizes contact with unassimilated immigrants.

The heavily symbolic and identity-oriented conceptualization of cultural threat that dominates the literature has begun to be challenged in recent scholarship. For example, Paxton and Mughan (2006) argue that the cultural threat of immigration should be conceptualized as rooted in the concrete phenomena of the failure of immigrants to assimilate to the cultural norms and lifestyle of their new country of residence. The authors argue that, "Just as *economic threat* is the key concept in understanding material intergroup relations, *assimilation* is the key concept in understanding cultural intergroup relations" (2006; 551). In support of their theory of assimilationist threat, Paxton and Mughan document American citizens' concerns over actual contact with unassimilated immigrants and report specific complaints by citizens over concrete contact situations, such as not being able to communicate with immigrants that do not speak English. This research strongly suggests that contact with unassimilated immigrants triggers concerns over immigration, specifically concerns pertaining to culture and language. At present, however, there is little research in the opinion literature directly assessing the consequences of personal contact with immigrants, let alone studies that differentiate types of contact based upon characteristics of immigrants, such as their degree of cultural and linguistic assimilation. What is

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particularly lacking is a focused investigation of the effect of contact with unassimilated immigrants on citizens' cultural threat perception and immigration policy preferences.

Contact with Immigrants

The issue of contact has not gone unaddressed in the opinion literature on immigration. To the contrary, a corpus of studies exists that analyze the effect of citizens' ethnic context on their opinions on immigration. These studies engage the issue of contact by analyzing the relationship between contextual measures of the size of local immigrant groups and the opinions on immigration among citizens who reside in these contexts. The predominant hypothesis tested in these studies is the power threat hypothesis (Blalock, 1967; Key, 1949), which argues that larger local immigrant populations should be associated with greater levels of real economic competition, perceived threat, and hostility toward immigrants (Hopkins, 2010; Quillian, 1995; Taylor, 1998). Interestingly, the evidence in support of the power threat hypothesis is notoriously mixed, with limited evidence in support of the hypothesis (Campbell, Wong, & Citrin, 2006; Tolbert and Grummel, 2003), some evidence demonstrating a reduction in anti-immigrant sentiment in response to residing near larger immigrant populations (Fetzer, 2000; Hood & Morris, 1997), and the bulk of the research finding that the size of local immigrant populations exerts no significant effect on citizens' immigration policy preferences (Cain, Citrin, & Wong, 2000; Citrin et al., 1990; Citrin et al., 1990; Dixon & Rosenbaum, 2004; Taylor, 1998).

While problematic on its own, the inconsistent nature of the results for the power threat hypothesis is linked to an additional shortcoming of these studies: group-size based measures of ethnic context presume, but do not directly observe, contact with immigrants. While some studies have attempted to address this issue by incorporating into analyses of the effects of group

size proxy measures of contact, such as population density (Hood & Morris, 2000) or levels of segregation between Anglos and immigrant minorities (Rocha & Espino, 2009), the problem remains that observing features of an individual's ethnic context does not directly tell us whether they actually had personal contact immigrants. More importantly, such contextual measures cannot tell us anything about the nature or quality of the contact (i.e. casual vs. intimate contact), nor does it provide any information about the characteristics of the immigrants citizens are coming into contact with (i.e. assimilated vs. unassimilated).

This issue is important given that intergroup threat theories, such as the power threat hypothesis, are directly countered by intergroup contact theory, which argues that contact between groups should, under certain conditions, erode prejudice and hostility toward outgroups (Allport, 1954). Thus, a key problem with group-size based measures is that they are unable to differentiate the types of cursory contact that may exacerbate threat, from the intimate and repeated types of contact that may attenuate it. Indeed, the inconsistent results for group-size based measures have been argued to result from their random capturing of both positive and negative types of contact with immigrants. The importance of differentiating context from contact is demonstrated by Stein, Post, and Rinden (2000), who find that residing near a large Hispanic population leads to negative attitudes toward Hispanics among Whites when personal contact with Hispanics is minimal, but to more favorable attitudes when personal contact is high. This finding is reinforced by Dixon and Rosenbaum (2004), who find that while the size of the Hispanic population surrounding White's had no effect on their attitudes toward Hispanics, personal contact with Hispanics within one's community or school resulted in more positive attitudes toward Hispanics.

In short, while there exists a substantial body of opinion research that address the issue of contact with immigrants, the bulk of these studies engage the issue indirectly, and employ indirect measures of contact. The consequence of this limitation of these studies is that they are unable to tell us whether certain types of contact with certain types of immigrants are more threatening than others. What is needed is an investigation of contact that clearly outlines the types of contact likely to trigger threat, directly measures this type of contact, and assesses its effect on citizens' attitudes toward immigrants and immigration policy preferences.

A CONTACT-BASED THEORY OF CULTURAL THREAT

In its original form, intergroup contact theory identified a set of optimal conditions under which contact between groups could reduce prejudice and conflict (Allport, 1954). While perhaps too self-evident to be included in this set of conditions, it is nonetheless crucial to note that positive contact may not be able to take place if two individuals are unable to effectively interact. To be sure, within the context of intercultural contact between native-born American citizens and immigrants, one key condition for positive contact should be the ability to communicate, understand one another, and actually interact together. The ability to effectively communicate and interact requires the possession of a minimum of shared culture and language. In contact situations where this minimum of shared culture and language is absent (e.g., when an immigrant is culturally unassimilated), the ability to interact is greatly curtailed, with the potential consequence being the triggering of negative feelings rather than the formation of a positive contact experience.

There are multiple veins of research that provide a theoretical foundation for the expectation that contact with immigrants involving cultural or linguistic barriers to effective

interaction should lead to threat. For example, the literature on acculturation and adaptation

(Castro, 2003) argues that individuals residing in foreign-culture environments, or native

environments undergoing immigration-driven cultural change, may experience "culture shock"

(Bock, 1970; Oberg, 1960) or "acculturative stress" (Berry, 1970, 1997). According to this

literature, the experience of these negative emotional states is rooted in the erosion of one's sense

of sociocultural competence in response to trouble comprehending outgroup culture and

difficulty effectively communicating and interacting with its members (La Fromboise, Coleman,

& Gerton, 1993).

  The notion that individuals may experience negative emotional states in response to

intercultural contact experiences undermining their sense of sociocultural competence is

reinforced by research on intergroup anxiety. This research demonstrates that individuals feel

anxiety about interacting with members of other groups, especially other cultures, where the

absence of shared culture or language results in the loss of the social cues that guide interaction

with members of one's own culture and promotes uncertainty about the outcomes of intergroup

contact (Stephan & Stephan, 1985). Most importantly, this research has found that anxiety in

response to interacting with immigrants serves as a significant source of prejudice toward

immigrants (Stephan, Ybarra, & Bachman, 1999). Complimenting the acculturation literature

and this work on intergroup anxiety, recent research on social exclusion demonstrates that the

experience of exclusion based upon outgroup members' use of a foreign language can result in

increased perception of "obstacles" to the ingroup posed by the outgroup (Cottrell and Neuberg

2005), increased anger toward the outgroup (Desteno, Dasgupta, Bartlett, & Cajdric, 2004), and

increased prejudice toward immigrants (Hitlan, Kelly, & Zarate, 2005).

Beyond these lines of research, the expectation that contact with unassimilated immigrants involving barriers to communication or exchange may lead to negative emotions and threat is supported by an appraisal theory of emotion (Scherer, 1999) and intergroup emotions theory (Mackie, Devos, & Smith, 2000). These theories argue that the emotions individuals experience in response to an event are based upon an appraisal or interpretation of the event on the primary evaluative dimension of whether the event favors or harms the individual's goals, desires, or well-being. When events are appraised as harmful and an individual appraises themselves as strong and capable, it is predicted that individuals will experience anger in response to the event and its perpetrating actor(s). According to these theories, the experience of anger, in turn, should lead to specific behavioral tendencies, such as the inclination to aggress or act against the offending situation, person, or group. When applied to the case of contact with unassimilated immigrants, experienced barriers to communication or interaction due to an immigrants' lack of assimilation may be appraised as harmful because, as discussed above, it constitutes an obstacle for the self and undermines an individual's sense of sociocultural competence. According to appraisal and intergroup emotions theories, interpreting contact with unassimilated immigrants as harmful may then lead to the experience of anger toward immigrants.

Taken together, these myriad veins of research provide a sound theoretical foundation for a contact-based theory of cultural threat, where *contact-threat* is defined as the negative emotions (e.g., anger, frustration, annoyance, etc.) triggered in response to cursory encounters with unassimilated immigrants involving cultural or linguistic barriers to basic communication and interaction. With this definition in mind, the following hypothesis is offered:

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The Contact-Threat Hypothesis: *The experience of contact-threat should directly activate the perception that immigrants pose a threat to the American culture and heighten support for restrictive immigration policies. In addition to its direct effect on policy preferences, the experience of contact-threat, by directly activating perceived cultural threat, should indirectly enhance support for restrictive immigration policies*

The contact-threat hypothesis draws upon the logic of appraisal and intergroup emotions theories in predicting that the experience of negative emotions in response to contact (i.e., contact-threat) will heighten the perception that immigrants pose a cultural threat and augment support for restrictive immigration policies. It is a logical and reasonable extension of these theories to expect the anger generated in response to contact with unassimilated immigrants to fuel additional and related negative appraisals, such as the perception that immigrants pose a general threat to the American culture. According to intergroup emotions theory, the experience of anger toward immigrants should in turn lead to the desire to aggress or act against immigrants, which may take the form of support for policies meant to restrict, punish, or generally harm the interests of immigrants. Last, because cultural threat is a known and powerful predictor of support for restrictive immigration policies, factors predicted to enhance these threat perceptions are likely to exert an indirect effect on policy preferences. Thus, there should be an indirect pathway of influence for anger in response to contact on anti-immigrant policy support via the predicted effect of anger on cultural threat perceptions.

Moving on, there is strong reason to believe that susceptibility to the experience of contact-threat should vary across individuals. While anger in response to contact is predicted to strongly influence threat perceptions and policy preferences, individuals should differ in terms of whether contact with unassimilated immigrants causes threat. Underlying the contact-threat

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hypothesis is the logic that threat is driven by exposure to unfamiliar culture (e.g., language) and the experience of this as a barrier toward intergroup communication and exchange. Not all citizens, however, are equal in terms of whether encountering an unassimilated immigrant garnishing foreign dress or mannerisms or speaking a foreign language constitutes an unfamiliar, and thus threatening, intercultural contact experience. Indeed, individual differences in longstanding exposure to foreign culture, people, and diversity in general, should strongly condition the degree to which situational encounters with immigrants, who for example do not speak English, constitutes a novel and jarring exposure to an unfamiliar culture. Individuals with more diverse cultural experiences, compared to those with more homogeneous cultural experiences, should posses greater cross-cultural skills and competencies, and should at the very least, be more accustomed and tolerant to encountering foreign dress, mannerisms, and language. This leads to the following hypothesis:

> ***The Diversity Experiences Hypothesis:*** *The possession of more (less) diverse cultural experiences should decrease (increase) the likelihood of experiencing negative emotions in response to contact with unassimilated immigrants involving exposure to a foreign culture or language. By reducing susceptibility to contact-threat, possessing more diverse cultural experiences should indirectly decrease the perception of cultural threat and support for restrictive immigration policies*

Taken together, the contact-threat and the diversity experiences hypotheses

make important contributions to our understanding of public opinion on immigration.

The former hypothesis identifies contact with unassimilated immigrants as a concrete type of culturally threatening experience and thus a tangible source of cultural threat perceptions and

support for restrictive immigration policies. The later hypothesis maps out a comprehensive

causal process underlying public opposition immigration, whereby individual differences in real

cultural diversity experiences shapes the experience of threat in response to contact with

unassimilated immigrants. By affecting the experience of negative emotions in response to

contact, cultural diversity experiences are argued to serve as an underlying and causally prior

individual difference factor indirectly influencing cultural threat perceptions and immigration

policy preferences.

DATA AND METHODS

To test the contact-threat and diversity experiences hypotheses, I draw upon a 2006

national survey conducted jointly by the Pew Research Center for the People & the Press and the

Pew Hispanic Center. This survey specifically focuses on the topic of immigration and contains

a total sample size of *N*=6,003.[19] Of the 6,003 survey respondents, approximately 69 percent

reported being non-Hispanic Caucasian, 12.5 percent reported being African American, 8.5

percent reported being of mixed racial descent, 6 percent reported being Hispanic, and the

remaining 4 percent of the sample reported an Asian or unknown ethnicity or refused to report

their race. For the purposes of providing an initial test of the presented hypotheses pertaining to

individual Americans' reactions to contact with non-English speaking immigrants, all analyses

are restricted to the 3,676 survey respondents who identified themselves as native-born non-

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[19] This survey relied upon telephone interviews conducted between February 8th and March 7th, 2006, and contains
an oversample of adults from Chicago, Las Vegas, Phoenix, Washington D.C., and Raleigh-Durham.

Hispanic whites.[20] In this remaining native white sample, roughly 48 percent of respondents were female, and the average age of respondents was 50 years old.

The primary reason the 2006 Pew survey was selected for usage in this study is that it contained questions asking survey respondents about their level of contact with unassimilated immigrants and their emotional reactions to this contact. First, survey respondents were asked about the frequency in which they "personally come in contact with immigrants who speak little to no English?" Approximately 52 percent of the native-born whites in the survey reported coming into contact with non-English speaking immigrants "often," about 27 percent reported such contact "sometimes", and the remaining 21 percent reported "rarely" or "never" encountering immigrants that do not speak English. This survey item is used in the present analysis as the measure of contact with unassimilated immigrants involving cultural and linguistic barriers to communication and exchange. The resulting variable, *Frequency of Contact*, has four ordered categories, ranging from minimal to maximal contact with non-English speaking immigrants. For a discussion regarding the validity of this self-reported measure of contact, see Appendix E. As the immediate follow-up question for respondents reporting frequent contact with linguistically unassimilated immigrants (respondents reporting "sometimes" or "often"), the survey probed respondents' emotional reactions to this contact. Specifically, respondents were asked, "When that happens [i.e., contact with immigrants that Speak little to no English], does it bother you, or not bother you?"[21]

For the purposes of testing the contact-threat hypothesis, an initial analysis will be conducted to test whether those with frequent contact with unassimilated immigrants perceive a

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[20] The decision to restrict the analysis to white survey respondents is consistent with the bulk of leading work in the field of opinion on immigration (Brader et al. 2008; Campell et al. 2006; Citrin et al. 1990; Hood and Morris 1997, 1998, 2000; Rocha and Espino 2009; Stein et al. 2000; Tolbert and Grummel 2003).
[21] Brackets were not included in original survey question and were included as a clarification for the reader.

higher degree of cultural threat from immigration than those with little to no contact with unassimilated immigrants. However, rather than contact in and of itself, the contact-threat hypothesis focuses on the experience of negative emotions in response to contact as the relevant factor hypothesized to drive cultural threat perception and policy preferences. For the present analysis, contact-threat is operationalized as feeling "bothered" in response to contact with immigrants that speak little to no English. Of the native Whites reporting frequent contact with non-English speaking immigrants, about 45 percent reported being "bothered" by such contact and 55 percent reported that they were "not bothered" by these encounters. A dichotomous variable, labeled *Bothered by Contact*, will serve as a core independent variable in the present analyses (1=bothered by contact). Following the initial analysis assessing the effect of the frequency of contact, a core analysis will be conducted to assess the effect of negative emotions in response to contact with unassimilated immigrants (i.e. contact-threat) on cultural threat perceptions and policy preferences. This latter analysis will be restricted to the 2,914 native White survey respondents that reported frequent contact with unassimilated immigrants, and were thus asked the follow-up question measuring emotional reactions to contact.

The diversity experiences hypothesis, which argues that the diversity of an individual's cultural experiences should influence their susceptibility to contact-threat, will thus assess the effect of diversity experiences on the likelihood of being "bothered" by contact with non-English speaking immigrants. Within the Pew survey, three items are used to gauge individual differences in exposure to cultural diversity. The first item pertains to the diversity of the respondent's familial and friendship network, and asks whether the respondent has any "friends or relatives who are recent immigrants." From this item, a dichotomous variable, labeled *Immigrant Friends & Family*, was created (1=respondent has immigrant friends or relatives);

approximately 23.5 percent of respondents reported having a recent immigrant as a friend or relative. The second item used to gauge individual differences in cultural diversity experiences is the whether or not the respondent resides in a metropolitan, and presumably more culturally diverse and cosmopolitan, urban area. A dichotomous variable, labeled *urban*, was created, where "1" indicates residence in a metropolitan urban area (about 33% of respondents), and "0" indicates the respondent resides in either a suburban or rural area. The third item used to measure diversity experiences is whether or not the respondent is multilingual. Respondents were asked whether or not they "speak a language other than English well enough to carry on a simple conversation?" The final variable, labeled *multilingual*, is dichotomous, and coded "1" for those respondents who speak a language other than English (about 29% of respondents). For more information about the selection of these three items to capture differences in cultural diversity experiences across respondents, please see Appendix F.

To measure the perception that immigrants pose a cultural threat, two separate survey items were subjected to analysis. The first item asked respondents which of two statements pertaining to the cultural impact of immigration comes closest to their own view. Respondents were presented with a statement claiming that, "The growing number of newcomers from other countries threaten traditional American customs and values," and a counter-statement claiming that, "The growing number of newcomers from other countries strengthens American society." From this item, a dichotomous measure of cultural threat was created, labeled *American Customs & Values*, which is coded "1" if the respondent selected the first statement (50% of sample) and "0" if they selected the second statement (50% of sample). While this item resembles extant measures of cultural threat (e.g., Citrin et al., 1997; Sniderman et al., 2004; Stephan et al., 1999), a key shortcoming with this dichotomous item is that the latter counter-statement implying

positive impacts of immigration fails to refer specifically to cultural impacts. To compensate for this weakness in question wording, I analyze an additional survey item asking respondents to report their level of agreement with the following statement: "Some people say that our American way of life needs to be protected against foreign influence. Would you say you completely agree, mostly agree, mostly disagree, or completely disagree with this?" From this item, an second ordered measure of cultural threat was created, labeled *American Way of Life*, which was coded to range from "1" (complete disagreement with the statement—15 % of respondents) to "4" (complete agreement—15% of respondents). These two measures of cultural threat have a very strong association with one another (γ= .734, ASE= .015). Given this, these items were combined into a summative scale, labeled *Cultural Threat* (α= .60), which is coded to range from low to high levels of perceived threat.

One point of interest is the distinctness of contact with unassimilated immigrants and the experience of contact-threat as sources of cultural threat perception in contrast to other types of perceived threats associated with immigration, such as those pertaining to jobs, crime, or national security. The contact-threat hypothesis strongly links contact with unassimilated immigrants to cultural threat, and thus would suggest that it is more likely to activate cultural concerns over economic or crime-related concerns. To assess the degree to which contact generates different types of threat related to immigration, I draw upon an item in the Pew survey asking respondents: "What is your biggest concern over illegal immigration? Is it that it (1) hurts American jobs, (2) hurts American customs and way of life, (3) increases the danger of terrorism, or (4) contributes to crime?" From this item, an unordered categorical variable labeled *Biggest Concern* was created, whose response options correspond to those listed in the original

survey question, but with the inclusion of those who reported "other" or "don't know" into a fifth category.

To measure immigration policy preferences, the analysis relied upon 4 policy items. The first is a standard item in the opinion research tapping preferences over the amount of legal immigration allowed by government into the county. Respondents were asked whether the amount of legal immigration into the U.S. should be increased, kept at its present level, or decreased. This 3 category ordinal item, labeled *Amount of Immigration*, is coded to range from permissive to restrictive policy preferences (3=immigration should be decreased, 37.5% of sample). The second policy dependent variable taps attitudes concerning how the U.S. government should address illegal immigrants currently residing in the country; respondents were asked whether illegal immigrants residing in the country "should be required to go home," or "granted some kind of legal status that allows them to stay here?" The resulting dichotomous variable, labeled *Deport Illegals*, is coded "1" for respondents supporting requiring illegals to be returned to their homes (about 57% of respondents) and "0" if they believed they should be given some kind of legal status and allowed to stay in the U.S. The third policy item pertains to the Federal Government's E-Verify system, and asks respondents whether they favor or oppose "creating a new government database of everyone eligible to work – both American citizens and legal immigrants, and requiring employers to check that database before hiring someone for ANY kind of work?" The resulting variable, labeled *E-Verify System*, is dichotomous and coded "1" for respondents supporting the creation and required usage of E-Verify (64 % of respondents) and "0" for those opposing it. The final policy dependent variable addresses current laws pertaining to the citizenship status of children of illegal immigrants, and asks respondents: "Would you favor changing the Constitution so that the parents must be legal residents of the

U.S. in order for their newborn child to be a citizen, or should the Constitution be left as it is?" A dichotomous variable labeled *Immigrant Children* was created from this item, and is coded "1" for those in favor of changing the constitution (45% of respondents) and "0" for those opposed to this change.

Several theoretically relevant controls were included in all analyses. First, standard controls were included for education, income, age, and gender (1=male). To capture the role of economic concerns in shaping attitudes toward immigrants and policy preferences, all models include measures of employment status (1=unemployed), sociotropic evaluations of the national economy, respondents assessment of the job opportunities in their local community, and respondents' evaluations of their own personal financial situation. To control for respondents' political and symbolic leanings—including prejudice toward ethnic minorities—several additional controls are included in all analyses. All models include controls for party identification, liberal-conservative ideological self-identification, and general negative affect toward Hispanics and Asians.[22] For ease of interpretation, all variables, except Age, were recoded to range from 0 to 1. For more information about variable measurement and question wording, please see Appendix H.

Analysis

Both the contact-threat and diversity experiences hypotheses predict direct and indirect effects. In the former hypothesis, being bothered by contact with non-English speaking

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[22] While standing as vital controls, these measures of prejudice were, unfortunately, not given to all respondents in the 2006 Pew Survey on Immigration. The survey contained two separate questionnaire forms (Form 1 and Form 2) randomly administered to respondents. The two measures of negative affect toward ethnic minorities were only present on Form 1, which was given to 50.2% of the native-born white respondents reporting frequent contact with non-English speaking immigrants. Including these controls thus further reduced the sample size to N=1,465 respondents. The sign and significance of all hypothesized effects do not change when the models are re-run on a doubled sample excluding these measures of prejudice.

immigrants is predicted to directly enhance cultural threat and restrictive immigration policy preferences, and to indirectly enhance restrictive policy preferences through its effect on cultural threat perceptions. In the latter hypothesis, diversity experiences are predicted to directly decrease the likelihood of being bothered by contact with non-English speaking immigrants, and to indirectly decrease cultural threat perceptions and restrictive policy preferences by lessening the experience of contact-threat. In the case of the contact-threat hypothesis, standalone logistic and ordered logistic regressions were estimated to analyze the direct effect of the frequency of contact on *American Customs & Values* and *American Way of Life*. Following this analysis, the direct and indirect effects of contact-threat were assessed using structural equation models (SEMs) that simultaneously regressed (1) *Cultural Threat* on *Bothered by Contact* and controls and (2) a policy dependent variable on *Cultural Threat*, *Bothered by Contact*, and controls. Last, a multinomial logistic regression analysis was conducted to assess the effect of *Bothered by Contact* on *Biggest Concern*, in order to determine the effect of contact on the probability of being concerned over the non-cultural vs. cultural impacts of immigration. In the case of the diversity experiences hypothesis, a stand alone logistic regression was estimated to analyze the effect of diversity experiences on being bothered by contact, and then SEMs were estimated that simultaneously regressed (1) being *Bothered by Contact* on diversity experiences and controls, (2) *Cultural Threat* on being *Bothered by Contact*, diversity experiences, and controls, and (3) a policy dependent variable on *Cultural Threat*, *Bothered by Contact*, diversity experiences, and controls.

In addition to enabling the estimation of the direct and indirect effects, SEMs can allow for the specification of categorical variables (e.g., see Iacobucci, 2008) to provide more accurate statistical tests for mediation. Due to the dichotomous and ordinal nature of the dependent and

mediating variables, I used probit and ordered probit link functions for the models and estimated the parameters using mean and variance adjusted weighted least squares in the software package Mplus® (Muthén & Muthén, 2007).

RESULTS

Starting with the contact-threat hypothesis, Table 3 lists the results from a logistic and ordered logistic regression analysis of the effect of the frequency of contact with unassimilated immigrants on the separate measures of perceived cultural threat from immigration. This initial analysis reveals that whites reporting frequent contact with non-English speaking immigrants are significantly more culturally threatened by immigration than those having little to no contact (*American Customs & Values*: *B*=.577, *SE*=.185; *American Way of Life*: *B*= .303, *SE*= .174). Indeed, the predicted probability of perceiving immigrants as posing a threat to American customs and values, holding all else constant, is .40 among white reporting no contact and .52 among those reporting the highest level of contact, yielding a difference of .12. The predicted probability of perceiving immigrants as threatening the American way of life, holding all else constant, is .44 among white reporting no contact and .52 among those reporting the highest level of contact, yielding a difference of .08.[23] These results provides some initial evidence that, rather than merely being a perceptual phenomenon detached from tangible factors, cultural threat perceptions are significantly driven by actual contact with unassimilated immigrants.

The core of the contact-threat hypothesis, however, is that the experience of negative emotions (i.e. contact-threat) in response to cursory encounters with unassimilated immigrants is the principle factor driving cultural threat perception. The initial results show that contact

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[23] Predicted probabilities are for the probability of "agreeing" or "strongly agreeing" that immigrants pose a threat to the American way of life.

Table 3:   **Contact with Unassimilated Immigrants**
And Perceived Cultural Threat

	American Customs & Values		American Way of Life	
Frequency of Contact	.486*	(.213)	.303†	(.174)
Education	-1.09***	(.265)	-1.52***	(.224)
Income	-.239	(.294)	-.118	(.240)
Age	.016***	(.004)	.018***	(.003)
Gender	.075	(.119)	.318***	(.098)
Unemployed	.117	(.399)	.293	(.339)
Sociotropic Evaluations	1.02***	(.256)	.174	(.211)
Pocketbook Evaluations	.038	(.275)	.288	(.227)
Local Jobs	.396**	(.139)	.394***	(.119)
Party ID	.566***	(.169)	.547***	(.139)
Ideology	1.69***	(.315)	2.01***	(.259)
Hispanic Affect	1.90***	(.326)	2.47***	(.257)
Asian Affect	1.31***	(.355)	.371	(.269)
Constant	-3.32***	(.488)		
Thresholds				
Cut1			.818	(.397)
Cut2			2.90***	(.403)
Cut3			5.09***	(.417)
N	1,469		1,532	
Pseudo R²	.162			
Percent Correctly Predicted	.696			
Proportional Reduction in Error	.377			

Notes: Entries are unstandardized coefficients from a logistic regression. Significance levels based on two-tailed hypothesis tests, *p< .05, **p< .01, ***p< .001.

influences cultural threat, but the central test of the contact-threat hypothesis is whether negative emotions in response to contact serves as the key force influencing cultural threat perceptions and policy preferences. For all remaining analyses, the *Cultural Threat* scale will be used as the measure of perceived cultural threat from immigration. The results from the analysis of the direct and indirect effects of contact-threat on cultural threat and policy preferences are reported in Table 4. Beginning with the *Cultural Threat* model, the results in the first column reveal that feeling bothered by contact with non-English speaking immigrants (i.e. contact-threat) significantly increases the probability of perceiving immigrants as a threat to American culture (B=.074, SE=.009). Among those not bothered by contact, the predicted value of cultural threat, holding all other variables at their mean, is .34. Among citizens bothered by contact, however, the predicted value of perceiving immigrants as a cultural threat is .42, yielding a difference of .08 in the probability of cultural threat.

Of the controls in the model, the results in the first column indicate that more educated citizens are less likely to perceive immigrants as a cultural threat, while male and older citizens are each more likely to be culturally threatened by immigration. In addition, being ideologically conservative, identifying with the Republican Party, having pessimistic evaluations of the health of the national and local economy, and possessing negative affect toward Hispanics and Asians, each lead to an increase in the perception of cultural threat. What is important to note is that the effect of contact and negative emotions are highly significant even after controlling for a host of theoretically relevant competing factors, such as economic concerns and symbolic orientations like ideology and prejudice. In short, the results demonstrate that real situational factors, like contact with unassimilated immigrants and the negative emotions triggered in response to this contact, serve as a strong concrete source of the belief that immigrants pose a cultural threat.

Table 4: **Contact, Cultural Threat, and Immigration Policy Preferences**

	Cultural Threat		Amount Immigration		Deport Illegals		E-Verify System		Immigrant Children	
					Immigration Policy Item					
Bothered by Contact	.074***	(.009)	.172*	(.074)	.543***	(.090)	.206*	(.087)	.531***	(.084)
Cultural Threat	- - -	- - -	1.91***	(.226)	2.25***	(.273)	.961***	(.261)	1.45***	(.250)
Education	-.111***	(.018)	-.375*	(.148)	-.154	(.181)	-.989***	(.181)	-.388*	(.174)
Income	-.011	(.021)	.001	(.163)	.116	(.208)	-.186	(.195)	.269	(.194)
Age	.001***	(.000)	.000	(.002)	-.008**	(.003)	-.006*	(.003)	-.002	(.003)
Gender	.018*	(.008)	-.131†	(.069)	.003	(.085)	-.042	(.079)	-.051	(.080)
Unemployed	-.008	(.027)	-.050	(.206)	.307	(.373)	-.136	(.250)	.135	(.249)
Sociotropic Evaluation	.028†	(.017)	.387**	(.143)	.236	(.179)	.013	(.165)	-.072	(.172)
Pocketbook Evaluation	.006	(.018)	.200	(.157)	.148	(.191)	.137	(.187)	.144	(.189)
Local Job Market	.028**	(.010)	.185*	(.079)	.069	(.100)	.079	(.095)	-.114	(.094)
Party ID	.042***	(.012)	-.022	(.097)	.004	(.118)	.061	(.116)	.229*	(.107)
Ideology	.131***	(.023)	.539**	(.179)	1.23***	(.222)	-.016	(.218)	.532*	(.209)
Hispanic Affect	.146***	(.022)	.455**	(.171)	.887***	(.236)	.486*	(.223)	.634**	(.209)
Asian Affect	.039†	(.022)	.201	(.174)	.359†	(.222)	.095	(.226)	.194	(.216)
Constant	.188***	(.032)	- - -	- - -	1.69***	(.330)	-.716*	(.305)	1.37***	(.304)
Thresholds										
Cut 1	- - -	- - -	.444†	(.249)	- - -	- - -	- - -	- - -	- - -	- - -
Cut 2	- - -	- - -	1.75***	(.252)	- - -	- - -	- - -	- - -	- - -	- - -
N	1,241		1,241		1,240		1,240		1,241	
Indirect Effects										
Bothered by Contact	- - -	- - -	.141***	(.024)	.166***	(.028)	.071***	(.021)	.107***	(.022)

Notes: Mean and Variance Adjusted Weighted Least Squares Estimates (WLSMV) using delta parameterization and 1,000 iterations in Mplus (v.5.21). For all models, because Mplus treats categorical dependent variables as latent variables, the coefficient estimates represent the standard deviation unit change in the latent variable underlying the dichotomous or ordered response dependent variable associated with a unit change in the independent variable. †p<.10, *p<.05, **p<.01, ***p<.001 (Two-tailed hypothesis tests)

This finding is of prime importance to the opinion literature on immigration because cultural threat is a theoretically and empirically leading factor in accounting for immigration policy preferences among the general American public. This result also has important implications for resolving the tension between intergroup threat and contact theory in the immigration literature by identifying the kind of contact leading to threat. While intimate contact is theorized to reduce threat, the present analysis reveals that frequent superficial contact with immigrants involving exposure to unfamiliar culture and barriers to communication and exchange strongly triggers threat.

Turning to the direct and indirect effects of contact-threat on policy preferences, the last four results columns in Table 4 display the direct effects of contact-threat and cultural threat on policy preferences, and the indirect effect of contact-threat on policy preferences through its effect on cultural threat perceptions. First, the results reveal that being bothered by contact with non-English speaking immigrants directly increases support for government policies of decreasing the amount of legal immigration, deporting illegals rather than providing a pathway for citizenship, creating and requiring the usage of E-Verify, and changing the constitution to prohibit the children of illegals from automatically gaining citizenship. Thus, in addition to exerting a significant effect on cultural threat perception, contact-threat also exerts a highly significant direct effect on citizens' immigration policy preferences.

In line with past opinion research, the results in the last four columns of Table 4 reveal that perceiving immigrants to a pose a cultural threat consistently increases support for restrictive immigration policies. Interestingly, in all four policy models, the direct effects of cultural threat, while not directly interpretable, can nonetheless be surmised to be larger in magnitude than the effects of contact-threat. Of the controls, the results of the policy models reveal that an increase

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in education nearly uniformly dampens support for restrictive immigration policy. Opposing the effects of education, the results indicate that being ideologically conservative and generally prejudiced toward Hispanics each consistently augment support for restrictive policies. Finally, the indirect effects of contact-threat on policy preferences via its impact of cultural threat perceptions are listed in the bottom row of Table 4. The results indicate that in each instance, being bothered by contact with unassimilated immigrants exerts a highly significant indirect effect on support for restrictive immigration policies by heightening the perception that immigrants pose a cultural threat. One issue requiring discussion is the potential problem of endogeneity induced by reverse causation, characterized by the possibility that an individuals' attitudes toward immigrants may shape how they react to contact with immigrants. For a more detailed discussion of this issue, as well as the presentation of experimental data used to address this concern, please see Appendix G.

Before moving on to the results for the diversity experiences hypothesis, I will briefly discuss the results of the multinomial logistic regression analysis of respondent's biggest reported concern over illegal immigration. The purpose of this analysis is to determine whether contact with unassimilated immigrants has a stronger relationship to cultural threat perceptions than non-cultural types of concerns over immigration, such as economic competition, crime, and national security. The results of the multinomial regression analysis are reported in Table 5, and concern over the cultural impacts of immigration is used as the baseline category of comparison. The results reveal that being bothered by contact with unassimilated immigrants significantly decreases the probability of reporting non-cultural threats as one's biggest concern over illegal immigration. Put another way, the experience of contact-threat significantly decreases the probability that one's primary concern over immigration will be job losses, heightened risk of

Table 5: **The Effect of Contact on Non-Cultural vs. Cultural Concerns over Immigration**

	Hurts Jobs / Hurts Culture		Increases Terrorism / Hurts Culture		Increases Crime / Hurts Culture		Other & DK / Hurts Culture	
Bothered by Contact	-.478*	(.221)	-1.05***	(.231)	-.735**	(.237)	-1.16***	(.258)
Education	-.765†	(.455)	-.536	(.477)	-.411	(.493)	.088	(.544)
Income	1.17*	(.512)	.644	(.532)	1.08*	(.554)	1.60**	(.601)
Age	-.017*	(.007)	-.014*	(.007)	-.009	(.007)	.012	(.008)
Gender	-.680***	(.212)	-.590**	(.222)	-.601**	(.228)	-1.04***	(.246)
Unemployed	.497	(.823)	1.04	(.838)	.172	(.947)	.779	(.960)
Sociotropic Evaluations	1.49***	(.460)	.425	(.476)	.714	(.491)	.636	(.524)
Pocketbook Evaluations	1.08*	(.479)	.437	(.502)	.999*	(.516)	.763	(.561)
Local Jobs	.227	(.242)	-.105	(.261)	-.274	(.269)	.062	(.285)
Party ID	.413	(.291)	.337	(.308)	.083	(.315)	.471	(.342)
Ideology	-.706	(.561)	.717	(.591)	.539	(.612)	-.884	(.655)
Hispanic Affect	-.254	(.497)	-1.05*	(.543)	.160	(.536)	-.200	(.592)
Asian Affect	.191	(.539)	.526	(.581)	-.035	(.589)	-.955	(.650)
Constant	.949	(.792)	1.26	(.825)	.033	(.859)	-.629	(.935)
N				1,096				

Notes: Entries are unstandardized coefficients from a multinomial logistic regression. Significance levels based on two-tailed hypothesis tests, *p< .05, **p< .01, ***p< .001.

terrorism, or increased crime relative to the concern over the threat posed by immigration to the American culture and way of life. Given the preponderance of the claim that immigrants take jobs, it is no surprise that threat to American jobs was the most frequent answer (28%) given by white respondents as their biggest concern over immigration. This said, a specific comparison between concern over jobs and the cultural impacts of immigration reveals that being bothered by contact significantly increased the probability of reported concern over cultural impacts rather than job losses as one's biggest concern over illegal immigration (B= .478, SE= .221, p< .05).[24] These results suggest that in addition to generally heightening perceived cultural threat, the concerns over immigration most likely to be generated by the experience of negative emotions in response to contact with unassimilated immigrants are cultural concerns.

Moving on to the diversity experiences hypothesis, Table 6 reports the results from a logistic regression analysis of the effects of the three distinct indicators of exposure to cultural diversity on the probability of being bothered in response to contact with non-English speaking immigrants. As predicted, each of the three main measures of individual differences in diversity experience decreases the probability of being bothered by contact with unassimilated immigrants, however the effect of having immigrant friends and families fails to attain conventional levels of statistical significance. Starting with the diversity of one's familial and friendship network, and holding all other variables at their mean, the predicted probability of experiencing contact-threat (i.e. being bothered by contact) among respondents with no immigrant friends or relatives is .44 compared to the predicted .37 among those having a recent immigrant as a friend or relative. Turning to the diversity experiences imparted by residence in a metropolitan urban area (compared to a suburban or rural area), an analysis of predicted

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[24] This result is based upon a re-estimation of the model presented in Table 3 using concern over American jobs as the excluded baseline category for comparison.

Table 6:   Diversity Experiences and Negative Reaction to Contact With Unassimilated Immigrants

	B	(SE)	[p-value]
Immigrant Friends & Family	-.227	(.145)	[.117]
Urban Residence	-.308	(.132)	[.020]
Multilingual	-.488	(.141)	[.001]
Education	-.346	(.283)	[.222]
Income	.255	(.308)	[.409]
Age	-.003	(.004)	[.427]
Gender	-.160	(.126)	[.204]
Unemployed	.098	(.267)	[.714]
Sociotropic Evaluations	.358	(.292)	[.220]
Pocketbook Evaluations	.842	(.433)	[.052]
Party ID	-.013	(.177)	[.942]
Ideology	1.34	(.339)	[.000]
Hispanic Affect	3.01	(.345)	[.000]
Asian Affect	.483	(.347)	[.164]
Constant	-1.77	(.493)	[.000]
N		1,285	
Pseudo R²		.11	
Percent Correctly Predicted		.682	
Proportional Reduction in Error		.261	

Notes: Entries are unstandardized coefficients from a logistic regression. The dependent variable is *Bothered by Contact*, and is coded "1" if the respondent reported being bothered by encountering an immigrant that did not speak English. Significance levels based on two-tailed hypothesis tests.

probabilities reveals that the probability of being bothered by contact, holding all else constant, is .45 among citizens residing in suburban and rural areas. Among citizens residing in urban areas, however, the probability of experiencing contact-threat, holding all else constant, is .37, which represents an 8 percent drop on the probability scale of the dependent variable. Moving on to language abilities, among monolingual Americans the predicted probability of being bothered by contact with non-English speaking immigrants is .46 compared to the predicted probability of .34 among those individuals reporting the ability to speak languages other than English.

An additional approach to exploring the effect of diversity experiences on contact-threat, given that individuals can possess more than one of these experiences, would be to evaluate their joint impact. A *Diversity Experiences Scale* was constructed by adding the separate measures together, and the logistic regression model was re-run replacing the separate diversity experience items with the scale. Indeed, while exerting rather modest effects when analyzed separately, the joint effects of these three factors is more dramatic (*B*= -1.04, *SE*= .231, p<.001). Holding all other variables at their mean, a movement from possessing none of the three diversity experiences to having an immigrant as a friend or family member, residing in an urban area, and being multilingual, results in a change in the probability of being bothered by contact from .50 to .26. This difference of .24 represents a change in nearly a quarter of the probability scale of the dependent variable. In total, the results demonstrate that individual differences in real cultural diversity experiences significantly decrease susceptibility to being threatened by contact with unassimilated immigrants, and this effect holds even after controlling for an individual's symbolic orientations, such as their ideological leanings or their prejudice toward ethnic minorities (each of which exerted significant and large effects on the probability of being bothered by contact).

The diversity experiences hypothesis argues that individual differences in cultural diversity experience are politically consequential because they serve as a distal factor indirectly influencing opinion on a variety of federal immigration policies. Table 7 reports the results from the five SEMs analyzing the direct and indirect effects of the *Diversity Experience Scale* on cultural threat perceptions and immigration policy preferences. To prevent cluttering, the estimated parameters for the controls are not included in the table; rather, the top half of the table presents the direct effects of diversity experiences, contact-threat, and cultural threat, and the bottom half presents the indirect effects of diversity experiences on policy preferences through three separate mediational pathways. The first results column reveals, as reported above, that going from the minimum to the maximum of diversity experiences significantly decreases the experience of contact-threat. The second results column indicates that cultural diversity experiences do not have any significant direct effect on cultural threat perceptions, but exert a highly significant and negative indirect effect (B= -.025, SE=.007) on cultural threat perceptions through its significant effect on contact-threat. Essentially, the results in the second column demonstrate that individuals with fewer diversity experiences are significantly more likely to be bothered by contact, which in turn activates the perception that immigrants pose a cultural threat.

The remaining four results columns list the results from four SEMs each involving three simultaneous regressions: (1) Bothered by Contact on Diversity Experiences, (2) Cultural Threat on Bothered by Contact and Diversity Experiences, and (3) A Policy Dependent Variable on Cultural Threat, Bothered by Contact, and Diversity Experiences. In general, the results in the top half of the table reporting direct effects reveal that cultural diversity experiences decrease support for restrictive policy positions, though only in one instance (*Amount of Immigration*) does the direct effect attain statistical significance. Contact-threat and perceived cultural threat,

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Table 7:   **Mediated Effects of Cultural Diversity Experiences on Immigration Policy Preferences**

	Mediators		Immigration Policy Items			
	Bothered By Contact	Cultural Threat	Amount of Immigration	Deport Illegals	E-Verify System	Immigrant Children
Direct Effects						
Diversity Experience Scale	-.604***	-.020	-.252*	.026	.050	-.028
	(.143)	(.014)	(.113)	(.146)	(.129)	(.140)
Bothered by Contact	- - -	.041***	.101*	.331***	.147**	.336***
		(.005)	(.046)	(.060)	(.055)	(.057)
Cultural Threat	- - -	- - -	1.84***	2.11***	.779**	1.27***
			(.203)	(.262)	(.246)	(.241)
Indirect Effects						
Diversity Experience Scale						
Through:						
Bothered by Contact	- - -	-.025***	-.061†	-.200***	-.089*	-.203***
		(.007)	(.031)	(.059)	(.039)	(.059)
Cultural Threat	- - -	- - -	-.036	-.041	-.015	-.025
			(.026)	(.030)	(.012)	(.018)
Bothered and Threat	- - -	- - -	-.046***	-.052***	-.019*	-.031***
			(.013)	(.015)	(.008)	(.010)
N		1,555	1,556	1,556	1,556	1,556

Notes: For all models, because Mplus treats categorical dependent variables as latent variables, the coefficient estimates represent the standard deviation unit change in the latent variable underlying the dichotomous or ordered response dependent variable associated with a unit change in the independent variable. All models include controls for education, income, age, gender, employment status, sociotropic and pocketbook economic evaluations, Party ID, Ideology, and Hispanic and Asian Affect. †p<.10, *p<.05, **p<.01, ***p<.001. Significance levels are based on two-tailed hypothesis tests.

on the other hand, each directly (and significantly) increase support for restrictive positions on each of the four immigration policies. Turning to the indirect effects reported in the bottom half of the table, the first row of results (1) tests the impact of cultural diversity experiences on each policy attitude as mediated by contact-threat, the second row (2) tests the impact of diversity experiences on each policy attitude as mediated by perceived cultural threat, and the third row (3) tests the impact of diversity experiences on each policy attitude through its effect on contact-threat and the effect of contact-threat, in turn, on perceived cultural threat. Across the board, the results in the first row of reported indirect effects indicate that individual differences in cultural diversity experiences exert significant negative indirect effects on support for restrictive policies via its effect on the likelihood of experiencing contact-threat. Further, across the board, the third row of results reveal that diversity experiences exert a significant negative indirect effect on support for restrictive immigration policies via its effect on experiencing contact-threat, and the effect of contact-threat in turn, on cultural threat perceptions (i.e. a two-step mediation process). No significant indirect effects were found for the impact of diversity experiences on policy preferences via the effect of diversity experience on cultural threat and cultural threat's effect in turn, on policy preferences.

In sum, the results in Table 7 depict a more complex set of causal dynamics underlying immigration policy preferences among the American public than those explored in prior opinion research on immigration. The general gist of the story told by the results is that individuals differ in cultural diversity experiences, and individuals who have more diverse cultural experiences are less likely to be bothered by contact with unassimilated immigrants. This decreased susceptibility to contact-threat, in turn, decreases the tendency to perceive immigrants as posing a threat to American culture and weakens support for a variety of restrictive immigration

policies. Last, and most complexly, by decreasing susceptibility to contact-threat, which then decreases the perception of cultural threat, more diverse cultural experiences ultimately—through this two-step pathway—decrease support for restrictive immigration policies. As with the results testing the contact-threat hypothesis, the results testing the diversity experiences hypothesis could similarly suffer from endogeneity due to reciprocal causation between diversity experiences and attitudes toward immigrants. For more discussion of this issue, as well as the presentation of experimental data used to ameliorate this concern, please see Appendix C.

CONCLUSION

This article presents a realistic theory of cultural threat that identifies personal encounters with unassimilated immigrants involving exposure to unfamiliar language and culture as a tangible basis for the perception that immigrants threaten the American culture. This contact-based theory of threat, in turn, is offered as a novel explanation for immigration policy preferences among the American public. This article makes an important contribution to the opinion literature on immigration by demonstrating the relevance of real contact and diversity experiences on public opinion, and illustrating the complex pathways in which these experiences influence opinion. The analyses in this article demonstrate that contact with unassimilated immigrants and, more specifically, feeling bothered by this contact, serves as a realistic and situational source of the perception that immigrants pose a cultural threat and support for a variety of restrictive immigration policies. In addition, the analyses demonstrate that individual differences in concrete diversity experiences decreases susceptibility to threat in response to contact with unassimilated immigrants, and in turn, dampens cultural threat perceptions and support for restrictive immigration policies.

This article contributes to the larger intergroup literature by presenting a resolution of the tension between intergroup threat and contact theories within the context of immigration. This article identifies the degree of cultural assimilation of the immigrants that Americans come into contact with as a key condition shaping whether contact triggers amity or antipathy. The findings from the analyses demonstrate that while cursory contact with unassimilated immigrants triggers threat and enhances political opposition to immigration, contact with recent immigrants within ones' family or circle of friends can ultimately reduce threat and support for anti-immigrant policies. This is an important finding because it, in-line with intergroup contact theory, documents the countervailing effects of contact on public attitudes toward immigration depending upon the type of contact in question.

Of prime importance for the realistic and contact-based theory of cultural threat presented in this article, the effects of these concrete contact and diversity experiences are distinct from those stemming from an individual's symbolic orientations, such as their ideological leanings or their prejudice toward ethnic minorities. Thus, rather than merely serving as a manifestation of prejudice or conservatism, the results suggest that experiencing negative emotions and threat in response to contact, to a certain extent, has to do with the degree to which encountering unassimilated immigrants and foreign language and culture constitutes a jarring and culturally disorienting experience. An important implication of these findings for American politics is that public opinion may play a more dynamic role than previously believed in fueling political conflict over immigration. While the results do suggest that some individuals are simply prejudiced against immigrant minorities, which engenders a presumably more static political opposition to immigration, they also suggest that anti-immigrant sentiment among many other citizens may be a transient phenomenon. Indeed, among these citizens, antipathy toward

immigrants could be characterized as an initial reaction to exposure to unfamiliar people and

culture that may potentially weaken over time as these citizens become acclimated to these

experiences and develop more diverse experiences, skills, and relationships.

Chapter 4: Foreign Language Exposure, Cultural Threat, and Opposition to Immigration

Call any company with an automated phone system and you will likely hear a recording like this one: "Para continuar en español, oprima el número dos" ("to continue in Spanish, press number two"). These days, Americans are more likely than ever to be exposed to Spanish in their daily lives. Survey data suggests that newly arriving Hispanic immigrants are largely responsible for this phenomenon. A national survey of nearly 3,000 Latinos[25] reveals that 62% of first-generation Hispanic immigrants, or 11 million people,[26] speak little to no English in the U.S. Among Mexican immigrants this figure is even higher—71% of respondents from six nationally representative surveys[27] report they lack basic English-language abilities. And, while most Latinos acknowledge that they should make some effort to assimilate into American culture, 40% of Hispanics surveyed in a 2004 study[28] stated that it was not necessary to speak English to be considered part of American society. In fact, nearly all Latinos (88%) say that it is important for future generations living in the U.S. to maintain their ability to speak Spanish.[29]

The prevalence of non-English-speaking immigrants in the U.S. has led language to occupy a central position within contemporary political debates over immigration and multiculturalism. For instance, thirty U.S. states have enacted some form of Official English language legislation, and other efforts exist to require English proficiency for state driver's licenses, to oppose the renewal of the bilingual ballot clause of the Voting Rights Act, and to end bilingual education, in general. The occurrence and persistence of linguistic conflict may be

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[25] The Pew Hispanic Center/Kaiser Family Foundation 2002 National Survey of Latinos contained responses from 2,929 Hispanic adults. See publication #3300.
[26] Figure based upon the American Community Survey's 3-year estimates from 2006-2008.
[27] Data were pooled from six national surveys of Hispanics from 2002 to 2006; see Pew Hispanic Center Report "English Usage among Hispanics in the United States" (November 29, 2007).
[28] The Pew Hispanic Center/Kaiser Family Foundation 2004 National Survey of Latinos: Politics and Civic Engagement contained responses from 2,288 Latino adults. See publication #7129.
[29] Pew Hispanic Center/Kaiser Family Foundation 2004 National Survey of Latinos.

linked to the fact that, relative to other countries, the United States is one of the most

linguistically homogeneous nations (Thernstrom, 1980), with nearly 82 percent of the population

claiming to only speak English.[30]

The problem for many monolingual Americans is that the presence of non-English

speakers creates barriers to interpersonal communication and challenges what is perceived to be

a core aspect of American identity (Citrin, Reingold, & Green, 1990; Citrin & Wright, 2009;

Schildkraut, 2007). As a result, many individuals experience a degree of disorientation or

"culture shock" (Oberg, 1960) without ever leaving their home country. Although generally

thought to affect travelers, immigrants, or refugees, culture shock theoretically can afflict anyone

that has an "absence or distortion of familiar environmental and social cues" (Ward, Bochner, &

Furnham 2001, p. 65). We argue that exposure to culturally unfamiliar stimuli within one's

habituated environment—in this case, the Spanish language—may threaten citizens and cause

them to experience some degree of emotional disturbance.

A central aim of the present article is to advance our understanding of the sources of anti-

immigrant sentiment by contributing to the theoretical development of the concept of cultural

threat. We push the notion of the cultural threat posed by immigrants beyond its current

conceptualization and operationalization as collective level threats to American identity and its

related symbols. Rather, we argue that experiences of cultural disorientation, stemming from

local contact with non-English-speaking immigrants and experienced barriers to intergroup

communication and exchange, constitute realistic and personal dimensions of the cultural threat

of immigration faced by many Americans. Scholars working in the field have explored public

attitudes toward language policies (Citrin, Reingold, Walters, & Green, 1990; Huddy & Sears,

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[30] Figures obtained from the 2000 U.S. Decennial Census.

1995; Schatz, Sullivan, Flannigan, & Black, 2002; Schildkraut, 2001); yet, there is little

empirical work focusing on the effects of personal contact with linguistically unassimilated

immigrants and actual exposure to foreign language on attitudes toward immigration. In the

present study, we draw upon survey and experimental data to demonstrate that frequent contact

with immigrants who speak little to no English, as well as incidental interpersonal and

impersonal exposure to the Spanish language, serve as important sources of anti-immigrant

sentiment and policy support.

THREAT AND IMMIGRATION

One prominent framework for understanding the causes of anti-immigration attitudes is

the conceptual distinction between two classes of threat, namely realistic and symbolic threats

(Citrin et al., 1990; Sniderman, Hagendoorn, & Prior, 2004; Stephan, Ybarra, & Rios Morrison,

2009). Realistic threats emerge from competition over scarce resources, the loss of which can

hurt a group's status or well-being (Bobo 1983, 1988; Sherif, 1966; Sherif, Harvey, White,

Hood, & Sherif 1961). In terms of immigration, realistic threats primarily come in the form of

job competition and reduced wages (Espenshade & Calhoun, 1993; Olzak, 1992; Stephan,

Ybarra, & Bachman, 1999), as well as the consumption of government services and increased

taxes (Passel & Fix, 1994; Stephan et al., 1999). Interestingly, political scientists have found

mixed evidence for the role of realistic threats in shaping opinion on immigration. Objective

measures such as income, occupational field, employment status, and local unemployment rates

often fail to exert statistically significant effects on immigration policy preferences (Citrin et al.,

1997; Campbell, Wong, and Citrin, 2006; Hood and Morris, 1997). In contrast, subjective

measures, such as pessimistic sociotropic evaluations and perceived threats to the national

economy stand as consistent predictors of opposition to immigration (Espenshade and Hempstead, 1996; Citrin et al., 1997; Burns and Gimpel, 2000; Sniderman et al., 2004).

Symbolic threats, by comparison, concern violations to a group's core set of beliefs, values, cultural norms, or identities (Citrin et al. 1990; Kinder & Sears, 1981; Sears, 1988; Stephan et al., 1999). For instance, individuals may feel threatened by Hispanic immigrants, who are seen as putting little effort into embracing American culture and identity (Huntington, 2004). The identification of threat to culture as a distinct category of concern over immigration has its intellectual roots in the study of nativism. The belief that specific immigrant groups will fail to assimilate due to their ethnicity, religion, or culture of origin, and thus Americans' fears that their culture will be contaminated or displaced, is a defining feature of American nativism (Bennet, 1988; Higham, 1985; Schrag, 2010). Measures of symbolic threat and concern over the cultural impacts of immigration serve as consistent predictors of antipathy toward immigrants (Sniderman et al., 2004) and support for restrictive immigration policies (Citrin et al., 1990, Citrin et al., 1997; Hood and Morris, 1997). Further, such measures have been found to be prepotent sources of opinion on immigration, often trumping rival measures of perceived economic threat in multivariate analyses (Citrin et al., 1997; Sniderman et al., 2004; Sides and Citrin, 2007).

Clearly, research utilizing these concepts of threat has been useful in advancing our understanding of the sources of individual opinion on immigration. However, we believe there are two important and related limitations in the way researchers currently conceptualize cultural threat. First, theorization about cultural threats stemming from immigration has occurred largely in symbolic terms, involving group-level conflict over abstract or intangible objects. Standard measures of symbolic threat include items such as "immigration from Latin America is

undermining American culture," or "Hispanic immigrants should learn to conform to the rules and norms of American society" (Stephan et al., 1999). We believe that this research has overlooked a variety of non-economic, yet realistic, aspects of immigration that could serve as important sources of anti-immigrant sentiment.

In their "Fitting-In Experiment," for instance, Sniderman and colleagues (2004) manipulate whether a new immigrant group speaks Dutch fluently, as well as the degree to which this group will likely assimilate into Dutch culture. The authors report that subjects in the "immigrants do not speak Dutch and are not likely to fit it" condition are more likely to oppose new immigration than those in a control condition. While this finding is generally interpreted as demonstrating the effects of symbolic, group-level threats on national identity, the results from this experiment could just as easily be viewed as evidence that Dutch citizens had personal, pragmatic concerns about coming into contact with linguistically unfamiliar immigrants. From this perspective, native born citizens may well be worried about something very realistic—that is, the ability to effectively communicate and comfortably interact with outgroup members in their local communities.

A second, related limitation of political science research on the concept of cultural threat is the failure to consider threats that operate at the individual or personal level. Instead, the focus of existing research has been almost entirely at the group level—that is, interactions between Hispanic immigrants and Americans as a whole. Although several studies differentiate between collective and personal *economic* threats (Citrin et al. 1997; Burns & Gimpel, 2000; Sniderman et al., 2004), no research contains measures of cultural threat at the individual level. Sniderman and colleagues go so far as to state that "a threat to a group's identity and way of life inherently is a collective threat" (2004, p.37). Once again, we believe that this group-level focus ignores

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real concerns that individuals have about being able to interact and communicate with unassimilated, non-English-speaking, immigrants living in their communities.

To address these limitations in the literature, we extend the existing concept of cultural threat by developing and empirically assessing a theory emphasizing the tangible and personal dimensions of the cultural impacts of immigration. To this end, we draw upon research on acculturation and adaptation, assimilationist threat, and language-based exclusion to ground our theory. More specifically, we argue that direct, personal exposure in one's habituated environment to an unfamiliar culture and language—in this case, Hispanic culture and the Spanish language—may generate feelings of cultural disorientation, negative emotions, and reduced sociocultural competence, which ultimately causes threat. Feelings of threat, in turn, should color perceptions of immigrants and influence attitudes regarding policies geared toward immigration. To clarify, the key contribution of our conception of cultural threat is its focus on the individual native-born member of an immigrant-receiving country, and his or her reactions to real encounters with culturally unassimilated immigrants who speak a foreign language. In the section that follows, we briefly review three veins of research that provide a basis for understanding what these personal experiences are, why they are threatening, and how they should influence immigration attitudes.

FOREIGN LANGUAGE EXPOSURE AND THE EXPERIENCE OF THREAT

One basis for placing foreign language exposure at the center of a theory of concrete and personal cultural threat comes from work on acculturation and psychological adaptation (Castro, 2003). From this perspective, immigration entails intercultural contact, where members of distinct cultural groups engage with one another on a consistent basis. Over time, these individuals incorporate culturally distinct elements from each other into their own culture

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through a process of exchange known as acculturation (Redfield, Linton, & Herskovits, 1936). Acculturation is characterized by the displacement of the original cultural patterns of a group, followed by a period of cultural adjustment and change.

A primary concern to researchers on acculturation is individual adaptation, which can be viewed as the level of "fit" between the individual, whose environment is undergoing cultural change, and the surrounding sociocultural environment (Berry & Sam, 1997; Castro, 2003). The literature suggests that individual reactions to cultural change can result in positive or negative adaptation outcomes (Berry, 1997; Berry & Sam, 1997). We argue that one key to understanding how immigration and intercultural contact can be culturally threatening is to discern how individuals adapt to residing within an acculturating context. Of primary concern for our present theory is the experience of negative outcomes associated with sociocultural adaptation

Sociocultural adaptation depends upon the possession of the social and cultural skills or competencies necessary to deal with everyday social situations and demands in one's immediate context. Sociocultural competence involves the ability to interact effectively and comfortably with cultural outgroup members, which presupposes both sensibility to the beliefs, values, and norms of the cultural outgroup, as well as the ability to effectively communicate with its members (La Fromboise, Coleman, & Gerton, 1993; Castro, 2003). These skills affect the ease with which an individual navigates their surrounding sociocultural environment and accomplishes their goals, such as performing tasks, making friends, participating in social activities, and understanding and communicating with others (Ward & Rana-Deuba, 1999). Negative adaptation outcomes are primarily indicated by trouble understanding outgroup beliefs, customs, and behaviors, as well as difficulty effectively communicating and interacting with outgroup members. Language is posited as a recurrent and core component of sociocultural

competence, and communication barriers, in turn, comprise an important basis for the erosion of one's sense of sociocultural competence.

According to this theoretical framework, individuals become vulnerable to losing their obtained levels of sociocultural adaptation and experience "culture shock" (Oberg, 1960; Bock, 1970), "language shock" (Smalley, 1963), or "acculturative stress" (Berry, 1970, 1997) with the emergence and continued presence of unfamiliar culture and the displacement of the original cultural composition of one's surrounding environment. For native-born Americans, who are generally only proficient in English, coming into direct contact with non-English speaking immigrants in their own community should produce a realistic and personal cultural threat. This threat should originate from reduced sociocultural adaptation, with the presumed mechanism being exposure to foreign language, the presence of language barriers, and experienced difficulty performing everyday tasks and communicating with cultural outgroup members.

This theoretical expectation is in line with recent work on assimilationist threat and language-based social exclusion. The theory of assimilation threat (Paxton & Mughan, 2006) suggests that the failure of immigrants to assimilate core aspects of American culture constitutes a concrete form of cultural threat. Through analysis of focus group data, Paxton and Mughan (2006) conclude that there exists a widely shared hierarchy of expectations among Americans regarding the assimilation behavior of immigrants, with the most important behaviors being non-negotiable. Accordingly, the ability to speak English lies at the core of what "blending in to American society" means for Americans. Beyond finding that the vast majority of respondents in their survey agreed that immigrants need to communicate effectively in English in their daily lives, Paxton and Mugham also report that a majority of respondents believed that immigrants should speak in English when in public places and in the presence of Americans. Several

participants in the focus group studies registered strong complaints over experiencing difficulty in completing basic day-to-day tasks or interpersonal exchanges—such as placing an order at a fast food restaurant—due to encountering immigrants with limited English language ability. Such experiences, and the frustration they engender, reinforce the identification of foreign language exposure, experienced language barriers, and threatened sociocultural competence, as a realistic and personal dimensions of the cultural threat of immigration.

In addition to complaints over the experience of language barriers, one participant in the focus group study confessed that being around immigrants who speak another language appears arrogant and rude, and another stated it made her feel excluded and unimportant, "like you're not even there" (2006, p. 554). This response among focus group participants corresponds with recent research on language-based social exclusion (Hitlan, Kelly, Schepman, Schneider, & Zárate, 2006; Hitlan, Kelly, & Zárate, 2010). Research on social exclusion has demonstrated that experiences such as being ignored, unwanted, or rejected can lead to anger and aggressive behavior (Leary, Kock, & Hechenbliekner, 2001), decreased liking for group members (Pepitone & Wilpizeski, 1960), increased desire to avoid future contact with individuals responsible for the social exclusion (Cheuk & Rosen, 1994), and active derogation of those who engage in the rejection (Bourgeois & Leary, 2001). Building on this, scholars demonstrate that language-based social exclusion results in augmented intergroup distinctions, increased perception of "obstacles" to the ingroup posed by the outgroup (Cottrell & Neuberg, 2005), and increased anger toward the outgroup (Desteno, Dasgupta, Bartlett, & Cajdric, 2004). For instance, Hitlan et al. (2006) find that language-based ostracism within the workplace results in decreased organizational commitment, increased perception of symbolic threat, and increased prejudice toward immigrants. A more recent study finds that language-based ostracism outside the workplace (and

in a fabricated experimental social group setting) leads to increased prejudice toward immigrants via anger and perceived social distance (Hitlan et al., 2010).

Taken together, these three veins of work provide a strong theoretical foundation for a realistic theory of cultural threat that emphasizes contact with linguistically unassimilated immigrants and experienced barriers to interpersonal communication and exchange. In addition to extending our notion of cultural threat beyond its current group-level, symbolic conceptualization, our theory contributes to the opinion literature by adding an important component to our theorization of the causal process leading to anti-immigrant sentiment and policy support. A large portion of the opinion research focuses on the impact of cognitively-based perceptual variables (e.g., subjective economic evaluations and perceived economic and cultural threats, etc.) on immigration policy attitudes (Burns and Gimpel, 2000; Citrin et al., 1990; Espenshade and Hempstead, 1996; Esses, Jackson, and Armstrong, 1998; Sniderman et al., 2004; Stephan et al., 2009). Within this research, the causal chain is theorized to move from perceived threat to policy attitude, with a noticeable gap in exploring the factors that precede threat perceptions.

There are a few exceptions to this gap in the literature; for example, Fetzer (2000) and Sniderman et al. (2004) explore factors underlying the perception of economic and cultural threat, but these studies generally do not test whether ethnic context or contact with immigrants serve as antecedents for the perception of threat. Citrin et al. (1990) and Hood and Morris (1997) find that that citizens' perceptions regarding the impact of a growing Hispanic population, including the perceived cultural impacts, was significantly more negative among those residing in counties with higher percentages of Hispanics. Further, in both studies, the perceived impact of the Hispanic population had a powerful effect on immigration policy preferences, suggesting a

mediated causal process—where context influences perceptions, which in turn influence policy attitudes. Building on these findings, we seek to extend our understanding of the processes leading to anti-immigrant policy preferences by identifying personal contact and foreign language exposure as concrete factors and experiences that precede the perception of threat, and thus move us "further back" in the causal chain.

In sum, our theoretical framework merges insights from research on acculturation and adaptation, assimilationist threat, and language-based social exclusion to generate well-grounded expectations regarding the impact of contact with non-English-speaking immigrants and foreign language exposure on Americans' opinions on immigration. This framework pushes the current conceptualization of cultural threat beyond group-level, abstract threats by focusing on experienced barriers to interpersonal communication and exchange as realistic and personal dimensions of cultural threat. According to our theory, personal contact with non-English-speaking immigrants within one's local environment and exposure to foreign language will cause individual Americans to feel culturally threatened, which should in turn, increase opposition to immigration. We test our theory with survey-based data, as well as two novel experiments.

Study 1: Intercultural Contact and Attitudes toward Immigration

In the present study, we provide an initial test of our realistic and personal theory of cultural threat by assessing the impact of personal contact with immigrants who speak little to no English on Americans' attitudes toward immigration. First, we hypothesize that frequent contact with non-English speakers should enhance the perception among white citizens' that immigration poses a cultural threat. And second, we hypothesize that by enhancing the perceived cultural threat of immigration, contact with linguistically unassimilated immigrants should indirectly augment support for restrictive immigration policies.

Of course, we would be remiss to ignore the extant research in political science exploring the effects of proximate immigrant populations—both in terms of the size and growth—on Whites' policy preferences. Unfortunately, the findings from this research on ethnic context are notoriously mixed. For example, scholars report that the link between population size and anti-immigrant sentiment is state-specific (Hood and Morris, 1997), policy specific (Campbell, Wong, and Citrin, 2006), confined to specific immigrant groups (Ha, 2010), rooted in the growth rather than the size of local immigrant populations (Hopkins, 2010), or varies depending upon whether group size is measured at the census-tract versus county level (e.g., see Campbell, Wong, and Citrin, 2006; Tolbert and Grummel, 2003) or census-tract versus metropolitan level (Oliver and Wong, 2003). Other researchers find non-significant results when testing for the size of residentially-proximate immigrant groups on citizens' opinions (Citrin et al., 1990; Dixon and Rosenbaum, 2004; Frendreis and Tatalovich, 1997; Taylor, 1998). Some work even finds that residing near a large immigrant population leads to positive attitudes (Fox, 2004; Hood and Morris, 1997; Hood and Morris, 2000).

Beyond the mixed nature of the findings, one clear limitation of this research is that personal contact is not directly observed, but merely assumed, by measures of group size and residential proximity. The problems associated with relying upon contextual measures of group size as indicators of actual contact and perceived threat are illustrated by Stein, Post, and Rinden (2000), who find diverging effects for measures of ethnic context and actual personal contact upon white opinion. More specifically, they find that residing in proximity to a large Hispanic population leads to anti-immigrant sentiment among Whites, but only in the absence of personal contact with Hispanics. When actual contact with Hispanics is high, residing near a large Hispanic population drastically attenuates group antipathy and support for restrictive

immigration policy. These findings highlight the importance of distinguishing context from contact in theory and measurement and suggest strong caution in relying upon the former as an indicator of the latter.

The primary issue underlying confounding context and contact is that reliance upon group population size measures does not enable us to discriminate the possible mechanisms linking context to policy opinions. This issue becomes highly problematic in the presence of competing theories stipulating qualitatively distinct mechanisms linking context and presumed intergroup contact to policy attitudes. For example, proximity to a large immigrant community could provoke anti-immigrant sentiment by triggering economic competition or activating individuals' prejudice toward ethnic minorities—as extant theories argue—or because it leads to contact with unassimilated immigrants and culture-based barriers to intergroup communication and exchange—as our theory stipulates. At bottom line, observing that individual policy opinion covaries with the size of an outgroup lends little currency toward confirming or ruling out the potential mechanism underlying this relationship. Given the centrality of contact with non-English-speaking immigrants to the present theory of cultural threat, utilizing direct measures of such contact would stand to advance the extant opinion literature by addressing some of its key limitations, while also serving to operationalize our theory in a more direct and precise fashion.

Using a direct measure of interpersonal contact also allows us to better engage with and add to the existing research on intergroup contact (Allport, 1954; Brown, 1995), which argues that positive contact with outgroup members undermines negative stereotypes and leads to positive outgroup evaluations. The contact hypothesis, which accounts for the findings of Stein et al. (2000), clearly counters theories predicting threat and hostility in response to contact with outgroups, and needs to be theoretically addressed in developing our contact-based theory of

cultural threat. The theoretical framework underlying our theory of cultural threat accounts for the countervailing predictions of contact theory by identifying exposure to unfamiliar culture and experienced barriers to interaction and communication as key conditions under which contact with cultural outgroups will lead to threat rather than amity. Indeed, contact theory scholars have identified a set of key contextual features which must be present for contact to generate positive exposure effects; in the absence of such facilitative conditions, contact is believed to exacerbate intergroup conflict (Allport, 1954).

Within the domain of immigration and intercultural contact, the acculturation and adaptation literature, as well as the work on assimilationist threat and language-based social exclusion, strongly suggest that the degree of cultural assimilation of the immigrants that citizens encounter should condition the effects of contact. To be sure, leading scholarship suggests that conflict between two ethnic groups will not simply be a function of the size of an outgroup group or the degree of contact with its members, but of the degree of cultural differences between the two groups (Forbes, 1997). This argument is strongly reinforced by recent work demonstrating that white Americans react most negatively to large local Hispanic populations when they are culturally unassimilated (Roche and Espino, 2009). By shaping the degree to which contact involves exposure to unfamiliar culture and language, experienced obstacles to completing basic tasks and social exchanges, and threats to one's sense of social competence, the degree of cultural and linguistic assimilation of immigrants should strongly condition the extent to which contact activates perceptions of cultural threat, and in turn, triggers support for restrictive immigration policies.

Data and Methods

To test our initial hypotheses regarding the effects of personal contact with unassimilated, non-English-speaking immigrants, we draw upon a 2006 national survey conducted jointly by the Pew Research Center for the People & the Press and the Pew Hispanic Center. This survey specifically focuses on the topic of immigration and contains a total sample size of N=6,003.[31] As we are primarily interested in the reactions of white Americans toward personal contact with non-English-speaking immigrants, we restricted our analyses to the 3,884 survey respondents who identified themselves as non-Hispanic and White.

To measure personal contact with linguistically unassimilated immigrants, we rely upon the following item: "How often do you personally come in contact with immigrants who speak little to no English?" This ordinal variable has four response options: "Often" (52% of white respondents), "sometimes" (28%), "rarely" (17%), and "never" (3%). This variable, *contact,* was recoded to range from 0 to 1 for ease of interpretation, with higher values indicating greater contact. We measure perceptions of cultural threat with an item that asks respondents to select the statements that comes closest to their own views: "The growing number of newcomers from other countries threaten traditional American customs and values" versus "The growing number of newcomers from other countries strengthens American society." *Cultural threat* is a dichotomous measure coded "1" if the respondent selected the first statement and "0" if they selected the second statement. Of the 3,607 whites in the survey for whom a valid answer was recorded, approximately 49% perceive immigrants as posing a collective-level cultural threat.

We assess the impact of contact on Whites' immigration policy preferences with two separate policy items. First, we rely upon a commonly used survey item asking respondents: "Should LEGAL immigration into the United States be kept at its present level, increased, or

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[31] This survey relied upon telephone interviews conducted between February 8th and March 7th, 2006, and contains an oversample of adults from Chicago, Las Vegas, Phoenix, Washington D.C., and Raleigh-Durham.

decreased?" Our first policy dependent variable, *amount of immigration*, is a three category ordered variable ranging from "1" if the respondent selected "increased" to "3" if they selected "decreased." The second policy dependent variable taps attitudes concerning how the U.S. government should address illegal immigration; respondents were asked: "Thinking about immigrants who are now living in the U.S. ILLEGALLY, should illegal immigrants be required to go home, or should they be granted some kind of legal status that allows them to stay here?" Our second policy dependent variable, *deport illegals*, is dichotomous and coded "1" if respondents support requiring illegals to be returned to their homes and "0" if they believed they should be given some kind of legal status and allowed to stay in the U.S.

Within each model, we included a number of theoretically relevant individual-level control variables. To control for the role of economic concerns, we included measures of household income (1=highest income category), employment status (1=unemployed), as well as respondents' sociotropic evaluations of the national economy (1=negative evaluation) and evaluations of their own personal financial situation (1=negative evaluation). Political and ideological orientations were incorporated into each model through controls for party identification (5 point scale; 1=Republican) and ideological self-identification (1=very conservative). We control for group affect and prejudice, which are known predictors of opinion on immigration policy preferences (Burns and Gimpel, 2000; Huddy and Sears, 1995), with an item tapping negative affect toward Hispanics and another toward Asians (1=very unfavorable attitude toward group).[32]

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[32] The Pew Survey contained two separate questionnaire forms randomly administered to survey respondents; unfortunately, these two group affect items were only asked on Form 1 of the survey, thus cutting down the number of cases included in the analyses by nearly half. The inclusion or exclusion of the group affect items (and changes in the number of cases), did not significantly alter the size, direction, or statistical significance of the coefficient estimates for the direct effect of contact on perceived cultural threat, the direct effect of cultural threat on policy attitudes, or the indirect effect of contact on policy attitudes.

We also include a control for whether the respondent is fluent in a language other than English (1=multilingual), with the assumption that multilingualism may serve as a proxy for cosmopolitanism and multiculturalism, thus decreasing the likelihood of feeling culturally threatened by immigration. In addition, intergroup contact theory would suggest that having immigrants as close friends or family members—in contrast to casual encounters—should promote exposure to and familiarity with foreign cultures, reducing the experience of cultural threat in response to contact with unassimilated immigrants. To control for this possibility, we included an item that asked respondents whether they have any friends or relatives who are recent immigrants (1=has immigrant friends or family). To control for basic demographic factors, each model included measures for respondent education, age, gender (1=male), and place of birth (1=born in the U.S.). For ease of interpretation, all variables, except for age, were recoded to range from 0 to 1.

Given our hypotheses that contact will enhance the perception of cultural threat, and thus, heighten support for restrictive immigration policies, we need to estimate both the direct and mediated effect of contact on policy attitudes. To test these effects, we estimated a structural equation model for each policy attitude that simultaneously regressed cultural threat on contact (and a set of control variables) and regressed the policy dependent variable on contact, cultural threat, and control variables. Due to the ordinal nature of our cultural threat item and dependent variables, we used ordered probit link functions for these models and estimated the parameters using weighted least squares in the software package Mplus® (Muthén and Muthén 2007).[33]

Results

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[33] Common methods for assessing mediated effects (e.g., Stata's *sgmediation* command) treat dependent and mediating variables as continuous variables, which provide misleading estimates when such variables are categorical/ordinal in nature. To address this issue, we utilized structural equation models, which allow for the specification of categorical variables (e.g., see Iacobucci, 2008) and provide more accurate statistical tests for mediation.

As hypothesized, white Americans who report coming into frequent personal contact with immigrants who speak little to no English are significantly more likely (than whites lacking such personal contact) to perceive immigrants as posing a threat to American culture (see Column I, Table 8).[34] This result provides evidence in support of our argument that direct contact with linguistically unassimilated immigrants serves as a source of perceived cultural threat that is both tangible and non-symbolic in nature. In other words, while conceptualized in largely symbolic terms, this result reveals that the perception that immigrants threaten the American culture can be fostered by tangible and personal interactions with culturally unassimilated immigrants. Further, the results of the multivariate analysis demonstrate that the effect of contact is empirically distinct from the effects of a slew of alternative factors (e.g., national economic evaluations, group affect, ideology, etc.). While this result confirms our hypothesis by providing information about the sign and significance of the effect of contact upon the perception of cultural threat, it does not lend itself to direct interpretation of the magnitude of the effect.

To get a better sense of the effect size of our measure of contact, we conducted postestimation analyses using predicted probabilities. One approach for getting the overall feel of the magnitude of contact with non-English-speaking immigrants is to assess the change in perceived cultural threat among white survey respondents when moving from the minimum to the maximum level of contact. Holding all other variables at their means, the probability of being culturally threatened by immigrants among Whites who report "never" coming into contact with non-English speaking immigrants is .38. In contrast, among Whites who report coming into contact "often" with immigrants who speak little to no English, the probability of perceiving

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[34] Our analyses did not apply survey weights. Given that the survey contained an oversample of individuals from several U.S. cities, we compared model results with and without applied survey weights and the directionality and significance of the coefficients for contact and cultural threat remained essentially unchanged.

Table 8.   **The Effect of Contact on Perceived Cultural Threat**
And Immigration Policy Preferences

	Cultural Threat		Amount of Immigration		Deport Illegals	
Contact	.304*	(.123)	-.150	(.106)	.106	(.123)
Cultural Threat	- - -	- - -	.369***	(.034)	.415***	(.040)
Education	-.612***	(.154)	-.292*	(.127)	-.033	(.151)
Income	-.153	(.172)	.068	(.136)	.136	(.167)
Age	.009***	(.002)	-.001	(.002)	-.008***	(.002)
Gender	.008	(.069)	-.080	(.058)	.069	(.068)
Born in U.S.	.263	(.176)	.013	(.148)	-.051	(.162)
Unemployed	.181	(.237)	.142	(.217)	.211	(.280)
Party ID	.307***	(.096)	-.023	(.080)	.017	(.096)
Ideology	1.011***	(.182)	.382*	(.149)	1.086***	(.191)
Sociotropic Evaluations	.578***	(.143)	.329**	(.117)	.107	(.143)
Pocketbook Evaluations	.102	(.161)	.175	(.135)	.093	(.153)
Hispanic Affect	1.149***	(.185)	.448**	(.160)	1.062***	(.204)
Asian Affect	.891***	(.201)	.059	(.162)	.041	(.199)
Multilingual	-.197*	(.079)	.011	(.064)	-.016	(.078)
Immigrant Friends & Family	-.016	(.082)	-.173**	(.066)	-.098	(.078)
Constant	2.116***	(.328)			1.415***	(.032)
Thresholds						
Cut 1	- - -	- - -	.099	(.266)	- - -	- - -
Cut 2	- - -	- - -	1.387***	(.268)	- - -	- - -
N	1,686		1,686		1,680	
Indirect Effects						
Contact			.112*	(.047)	.126*	(.052)

Notes: For all models, because Mplus treats categorical dependent variables as latent variables, the coefficient estimates represent the standard deviation unit change in the latent variable underlying the dichotomous or ordered response dependent variable associated with a unit change in the independent variable. The coefficient for the indirect effect of contact represents the estimated effect of contact on each policy dependent variable as mediated by its effect on cultural threat. Reported p-values are based on two-tailed hypothesis tests, *p<.05, **p<.01, ***p<.001

cultural threats from immigration is .50. Hence, moving from the lowest to highest level of self-reported contact, we observe a 32 percent increase (a net difference of .12) in the probability that Whites report feeling culturally threatened.

Moving on to the results for our immigration policy items (Columns II and III, Table 8), we see that, in line with prior research, an increase in perceived cultural threat significantly increases support for restrictive immigration policies. In the former case, Whites who perceive immigrants as posing cultural threats are more likely to prefer a decrease in the level of immigration and a deportation policy for all illegal immigrants. Looking to the last row of Table 8, the results for the indirect effect of contact on policy attitudes confirm our hypothesis; by increasing the perception that immigrants pose threats to American customs and values, high levels of direct contact with non-English-speaking immigrants indirectly enhances support for anti-immigrant policies. In total, these results reveal that variation in the degree of personal contact with unassimilated immigrants has a substantively meaningful impact on cultural threat perceptions, which in turn, mediates the impact of contact on immigration policy preferences.

The findings for our control variables are worth giving brief description. In line with prior research, we find mixed support for conventional measures of economic threat. Across the threat and policy attitude models, neither income nor unemployment exerted significant effects. Moreover, personal financial evaluations registered no effects, while pessimistic sociotropic evaluations significantly enhanced perceived cultural threat and support for decreased levels of immigration. As expected by theories of prejudice, negative affect toward Hispanics and Asians both increased the perception of cultural threat, while only the former persisted in predicting support for anti-immigration policies. Not surprisingly, conservatives and Republicans are more likely to perceive immigrants as posing a cultural threat, and ideological conservatism, but not

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partisan identification, persists as a significant factor shaping policy preferences. Education, as found in past research, decreased threat perceptions and increased support for more permissive policy positions, while age exerted mixed effects—enhancing cultural threat while dampening support for deporting illegal immigrants. Finally, as predicted by intergroup contact theory, having a recent immigrant as a friend or family member consistently decreased anti-immigrant sentiment, though only achieving statistical significance in the case of preferences over the amount of immigration.

From the standpoint of our language-centered theory of cultural threat, the mechanism linking contact with non-English-speaking immigrants to threat perceptions and policy attitudes is presumed to be foreign language exposure and feelings of threat in response to experienced barriers to interpersonal interaction. While serving as an improvement over models which use indirect measures such as group population size, our subjective measure of contact is not without its own limitations. One potential concern with the subjective nature of this variable is its validity; for example, this measure could be susceptible to being distorted by attitudinal factors unrelated to the actual frequency of contact, such as prejudice.

To explore this possibility, we conducted a regression analysis of self-reported contact. Relying upon information obtained from the 2000 Decennial Census, we find that an increase in the percent foreign-born within respondents' zip code led to a substantively large and highly statistically significant increase in the probability of reporting a high degree of contact with immigrants who speak little to no English. This finding strongly contributes to the validity of our measure by demonstrating that variation in self-reported contact with non-English-speaking immigrants is strongly tied to variation in the actual immigration population within white survey respondents' proximate residential context. Countering this finding, however, this analysis also

revealed that negative affect toward Hispanics emerged as a significant predictor of contact, enhancing the probability of reporting higher levels of contact.[35]

As is the case with analyses based upon cross-sectional data, and of particular concern given the effect of prejudice toward Hispanics on our measure of contact, we cannot make strong conclusions regarding causality. We are left with a relative inability to conclude whether higher levels of contact shape immigration related attitudes, or whether prejudice influences residential self-selection, and in the present case, leads to inflated reports of intergroup contact. By capturing individual prejudice toward a key immigrant group, uncovering a relationship between self-reported contact and attitudes on immigration may serve, to a certain extent, as an exercise in demonstrating that negative attitudes toward an immigrant group predicts negative attitudes toward immigrants.

To address these limitations in our survey analysis, we conducted two experimental studies to explore the effect of direct foreign language exposure on Whites' perception of the threats posed by immigrants, as well as their resulting support for anti-immigration policies. In addition to enabling us to corroborate the mechanisms assumed to operate in our survey findings, the use of random assignment in determining the receipt of our experimental treatments allows us to determine the causal links among foreign language exposure, perceived threats, and immigration policy attitudes.

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[35] An ordered logistic regression was estimated to test the determinants of contact, with controls for income, education, gender, place of birth, age, ideology, economic evaluations, prejudice toward Hispanics and Asians, multilingualism, and having immigrants as friends or family members. Percent foreign born (at the zip code level) is a highly statistically significant predictor of reported contact (B=2.202, SE=.388, p=.000). Post-estimation analysis of predicted probabilities reveals that going from the minimum value of percent foreign born (0%) to its maximum (66%) results in a .44 change in the likelihood of reporting the highest level of contact—by far the largest effect size of the predictors. Additionally, negative affect toward Hispanics significantly increased the probability of reporting the highest level of contact (B=.612, SE=.256, p=.017).

Overview of Experimental Studies

Direct contact with immigrants is likely defined by sporadic, informal, and brief encounters within specific contexts (e.g., local supermarkets, retail stores, etc.) rather than prolonged and intimate settings (Hopkins, 2010). Of course, while we understand that language-based exclusion can occur in formal, motivated interactions (e.g., see Hitlan et al., 2010), we believe that they are relatively uncommon experiences for most white Americans. Our assumption is reinforced by evidence that neighborhood and workplace segregation somewhat insulate immigrants from native-born Americans and limit their day-to-day visibility (Fischer, 2003; Hellerstein & Neumark, 2005). Yet, exposure does occur, and we believe that it happens within a variety of limited interpersonal and indirect forms such as viewing signs or billboards in a foreign language, receiving official government documents in multiple languages, or even overhearing immigrants speaking to one another in their native tongue.

In light of these considerations, we posit and experimentally manipulate two distinct mechanisms of exposure to a foreign language for white Americans. In Study 2, we explore how a brief, unexpected exposure to Spanish in an Internet chat room setting affects attitudes toward immigration. In Study 3, we explore the effects of an incidental, indirect exposure to a Spanish-language website on attitudes. Consistent with our language-centered theory of cultural threat, we hypothesize that exposure to foreign language (e.g., Spanish) will increase individuals' perceptions of the threats posed by immigrants and thus their support for anti-immigration policies.

Study 2: The "Spanish Chat" Experiment

The "Spanish Chat" experiment was designed to assess the effect of brief, yet direct, contact with a foreign language speaker upon subjects' attitudes toward immigration. Two hundred and twenty four undergraduates enrolled in introductory political science courses at Appalachian State University (ASU) were recruited to participate in the study. ASU served as an attractive choice for the study given the rapid growth of the Hispanic population in North Carolina over the past decade. Of the 224 students who participated, 91.5 percent identified themselves as Caucasian; 42.4 percent were female; and 98.7 percent indicated that they were born in the U.S. Ideology and party identification were roughly evenly distributed across the student sample.

Experimental Design and Procedure

Upon entering the lab, subjects were told that they were participating in a consumer research study investigating people's attitudes toward commercial or governmental websites. To support our cover story, the first section of the study asked participants to engage in a brief series of navigation tasks through the website of the Department of Housing and Urban Development. Participants were instructed that the purpose of the navigation tasks was simply to familiarize them with the configuration of the website and to give them a basis for evaluating its "user-friendliness." After completing the brief navigation tasks, participants were told that focus group discussions constitute a large part of conducting consumer research and provide a very useful method of learning about consumer evaluations and preferences. Participants were told that our research was being conducted at multiple sites, and that they were going to participate in a brief on-line "focus group style" chat with another student participating at a separate university. In reality, the chat-room discussant was a computer program with a set of scripted questions for our subjects. Subjects were told that Internet-based focus group forums are less costly than in-person

groups, and that given time and cost constraints, the discussion session would be limited to a short "Questions and Answers" format.

All participants in the study were assigned the role of answering 6 questions posed by their chat-room partner. Participants in the control condition received 6 questions asked entirely in English. For participants in the treatment group, 4 of the 6 questions contained substantial portions of the question in Spanish. For example, the first posted statement by the computerized chat discussant in the control condition was, "*just finished looking at some sites. what website did you search?*" In the treatment condition, however, the statement appeared as: "*just finished looking at some sites. qué website tuviste que buscar?*" This manipulation was intended to simulate the type of brief, real-life encounter with someone who has limited English-language abilities.

After completing the chat room questions and answers, as well as a series of subsequent deception bolstering filler questions, participants completed a target survey questionnaire. An experimental check revealed that less than 2% of the sample stated that they thought the experiment was explicitly about immigration, and no participants believed that the purpose of the experiment was to manipulate language exposure. Further, there was no significant correlation between experimental condition and the very small portion of students that reported thinking the experiment had something vaguely to do with immigration.

To assess the impact of the treatment upon the perception of threat posed by immigrants, the questionnaire included 5 items that are conventional measures of material threat (Paxton & Mughan, 2006; Citrin et al., 1990), which formed a single scale ranging from 0 to 1 (1=high threat), with an inter-item reliability of $\alpha= 0.78$. In addition, we included a 6-category collective cultural threat item derived from Sniderman and colleagues (2004) that asked respondents to

indicate their degree of agreement with the statement, "these days, I am afraid the American culture is threatened by immigration," (high score=strongly agree). We assess the impact of our treatment on subjects' preferences over 5 distinct immigration policy items. First, we include an item commonly used in the opinion literature that asked subjects to indicate their preferences regarding whether the "U.S. Government should see to it that legal immigration be kept at its present level, increased, or decreased" (high score=decreased immigration). Second, we asked subjects to indicate on a 5-point scale how important they believed it to be for the "U.S. government to work to return all illegal immigrants back to their home counties" (high score= "Extremely Important"). Third, we included an item pertaining to the Official English Language movement and asked participants to report how likely they would be to support "a state or local law declaring English as the Official Language?" This item had 6 response options, ranging from "extremely unlikely" to "extremely likely."[36] Fourth, we tapped opposition to bilingual government services by asking subjects to report their level of agreement with the statement "government agencies and offices interacting directly with citizens should make documents, forms, and signs available in languages other than English." This item had 6 response options, ranging from "strongly agree" to "strongly disagree." Finally, a salient issue in the immigration debate is the consumption of government services and receipt of welfare by immigrants; thus, we used the 1992 ANES item utilized by Citrin and colleagues (1997), for which subjects indicated how long they thought "it should take before immigrants that come to the U.S. to live are eligible

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[36] The response categories for the Deport Illegals ("not at all important" "slightly important" "moderately important" "quite important" and "extremely important"), Official English ("extremely unlikely" "pretty unlikely" "somewhat unlikely" "somewhat likely" "pretty likely" and "extremely likely"), and Bilingual Government Services ("strongly agree" "agree" "slightly agree" "slightly disagree" "disagree" "strongly disagree") items contain no neutral midpoint. The decision to exclude the neutral midpoint for these items was done to avoid its over-usage as a default response among those subjects reluctant to take a position and/or concerned with social desirability (e.g., see Krosnick, 1999). The response options for Delayed Government Benefits item are "eligible immediately" "wait 1 year" "wait 2 years" "wait 3 years" and "wait4 or more years."

for government services such as Medicaid, Food Stamps, and Welfare." This variable had 5 ordered response options, ranging from "eligible immediately" to "wait 4 or more years."

All models included controls for gender (1=male), income (1=combined annual income of subject and parents is more than $110,000), place of birth of subjects' parents (1=one or more of subject's parents was born outside of the U.S.), Spanish language ability (1=subject can speak Spanish "very well"), ideology (1=very conservative), and party identification (1=strong Republican). We also included measures of Right-Wing Authoritarianism (1=high authoritarian) and Social Dominance Orientation (1=high social dominance orientation) because both have been shown to be highly predictive of prejudice (e.g., see McFarland, 1998; Whitley, 1999), and the former has been shown to be directly predictive of economic and cultural threat and support for restrictive immigration policy (Hetherington and Weiler, 2009). Given that our language-centered conceptualization of cultural threat constitutes a distinct alternative to those based upon notions of threat to the American identity, we included a control for strength of subjects' national identity (1=strong American identity) that was derived from the 4 item scale used by Sniderman and colleagues (2004).[37] Finally, intergroup contact theory would suggest that having recurrent exposure to a foreign language within the context of having close friends who speak English as their second language should reduce the experience of foreign language-based threats. To control for this possibility, we included an item asking respondents about the percentage of close friends in their social network who were raised speaking a language other than English (1=100%).[38]

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[37] In addition to serving as a known predictor of immigration-related threats and policy attitudes, negative encounters with culturally unfamiliar outgroups may activate in-group/outgroup distinctions, thus enhancing the strength and salience of American identity among Whites. This activation of national identity, in turn, could mediate the link between foreign language exposure and perceived threats and policy attitudes. We tested for this possibility; neither the Spanish Chat nor the Web Spanish treatments exerted a significant effect on subjects' reported strength of national identity.

[38] Another distinct possibility that reflects an integration of intergroup contact theory into our acculturation framework is that individuals who either speak Spanish or another foreign language, as well as those who have friends that are ESL speakers, might be less threatened by foreign language exposure. In Study 2, we tested for these

Given that 91.5 percent of the participants in our study were White, and that Black and Hispanic participants each constituted less than 2 percent of the sample, race was not included as a necessary control. For ease of interpretation, all independent variables were recoded to range from 0 to 1.

A large portion of the empirical research on opinion toward immigration explores the impact of various perceived threats on immigration policy attitudes; within existing research the causal chain is theorized to move from perceived threat to policy attitude. In the present study, we aim to go further back in the causal process—our main hypothesis is that foreign language exposure experiences, such as our "Spanish chat" manipulation, will increase the perception of immigration-related threats, and by doing so, will heighten support for anti-immigration policies. In other words, we hypothesize that these threat variables—particularly perceived threat to the American culture—will mediate the impact of our treatment on subjects' immigration policy preferences. To test these hypotheses, for each threat variable and policy dependent variable, we estimated a structural equation model that simultaneously regressed the threat mediator on the treatment and control variables and regressed the policy variable on the treatment, threat mediator, and controls. Due to the ordinal nature of our cultural threat item and dependent variables, we used ordered probit link functions for these models and estimated the parameters using weighted least squares in Mplus®.

Results

possibilities by interacting the Spanish Chat treatment with Spanish language ability and separately with our measure of friendship with ESL speakers. In Study 3, we interacted the Web Spanish manipulation with ability to speak a foreign language and friendship with ESL speakers. Across both studies, individuals who spoke Spanish or another foreign language were not differentially impacted by the foreign language manipulations relative to those with limited language abilities or who are friends with ESL speakers.

Table 9 presents the results for the effect of the Spanish chat manipulation on the perceived cultural and material threats posed by immigrants, and Table 10 presents the mediated effects of the treatment on immigration policy preferences. Beginning with Table 9, as hypothesized, participants who received the Spanish chat manipulation reported significantly higher levels of perceived threat than participants in the control condition. To get a sense of the magnitude of the impact of our treatment on these different threat variables, we estimated predicted probabilities for the cultural threat model and predicted values for the material threat model. Because our cultural threat item is an ordinal variable, we chose to estimate the predicted probability of agreeing with the statement that the American culture is threatened by immigration.[39] Even after including a multitude of control variables (held at their means), we find that the probability of perceiving threats to American culture from immigration goes from 0.40 among those in the control condition to 0.54 for those receiving the Spanish chat treatment. The difference in predicted probabilities reveals that in addition to exerting a statistically significant effect, our treatment also has a substantively meaningful effect; exposure to the Spanish chat manipulation resulted in a 14 percent change on the scale of the dependent variable.

The impact of the chat manipulation on material threats, however, was less noteworthy. Holding all controls at their means, the predicted value on the material threat scale among those in the control condition was 0.51 compared to 0.55 for those receiving the treatment. Thus, in addition to exerting only a marginally significant effect, moving from the control condition to the treatment condition also resulted in a less sizeable movement on the 0 to 1 scale of our material threat variable. From a theoretical standpoint, the difference in the strength and size of the

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[39] We estimate the predicted probability for being above the third response category—that is, reporting "slightly agree", "agree", or "strongly agree."

Table 9.   The Effect of Experimental Treatments on Perceived Threats of Immigration

	Study 2: Spanish Chat Experiment		Study 3: Web Spanish Experiment	
	Cultural Threat	*Material Threat*	*Language Threat*	*Material Threat*
Experimental Treatment	**.347***	**.040†**	**.112****	**.067***
	(.156)	**(.024)**	**(.045)**	**(.034)**
Race Dummy (0=white)	- - -	- - -	.038	.022
			(.053)	(.034)
Treatment x Race	- - -	- - -	**-.147***	**-.115***
			(.065)	**(.049)**
Gender	-.044	-.010	.047	.044†
	(.155)	(.025)	(.033)	(.026)
Income	.566†	.021	-.110†	-.045
	(.336)	(.051)	(.059)	(.047)
Parent(s) Born Outside of US	-.203	-.099*	-.065†	-.085**
	(.278)	(.040)	(.040)	(.027)
Spanish Language Ability	-.599*	-.049	.020	-.015
	(.266)	(.042)	(.045)	(.033)
Friends with ESL Speakers	-.412	-.093*	.011	-.121**
	(.335)	(.047)	(.064)	(.046)
Ideology	-.239	-.038	.034	-.049
	(.431)	(.069)	(.076)	(.059)
Party ID	.448	.065	.019	.119*
	(.386)	(.063)	(.064)	(.050)
RWA	2.30***	.235**	.220*	.356***
	(.556)	(.088)	(.102)	(.065)
SDO	1.61***	.392***	.194*	.330***
	(.482)	(.066)	(.090)	(.067)
National Identity	1.491**	.219**	.070	.158***
	(.541)	(.085)	(.065)	(.048)
N	224		184	

Notes: For the *Cultural Threat* model, because Mplus treats categorical dependent variables as latent variables, the coefficient estimates represent the standard deviation unit change in the latent variable underlying the ordered response dependent variable associated with a unit change in the independent variable. For all remaining models with continuous dependent variables, entries are unstandardized regression coefficients. Reported p-values are based on two-tailed hypothesis tests, †$p<.10$, *$p<.05$, **$p<.01$, ***$p<.001$

impact of our treatment across the two threat variables makes sense given the stronger connection of language to the cultural rather than economic domain.

Moving on to the mediated effects of our treatment on immigration policy preferences, Table 10 reveals that the Spanish chat manipulation, through its effect on the perception of cultural threat, exerted consistent and significant indirect or mediated effects across the 5 policy items. Interestingly, and not unexpectedly, the Spanish chat manipulation exerted the strongest indirect effects on the two policy items that deal explicitly with language—Official English and Bilingual Government Services. Turning to material threat, the results in Table 10 show mostly nonsignificant indirect effects of the Spanish chat treatment on policy attitudes through the perception of the material threats posed by immigrants. In total, the results of the mediation analyses reveal that the main pathway by which our interpersonal language manipulation leads to anti-immigration policy preferences is through its effect on the perceived cultural, rather than material, impacts of immigration.

The overall findings from the Spanish chat experiment are substantively important for several reasons. First and foremost, they reveal that real interpersonal foreign language exposure, particularly when it serves as a barrier to communication, however informal, has important consequences for immigration related attitudes. The findings from our experiment suggest that we revise our thinking about the stark dichotomy between realistic, economic threats and symbolic, identity-oriented threats. The evidence from our "Spanish Chat" experiment, combined with the survey results from Study 1, suggest that real, yet non-economic factors, such as personal contact with non-English speakers and foreign language exposure are important sources of immigration policy attitudes. Moreover, we show that our individual-level language manipulation operates by enhancing the perceptions of the threats posed by immigrants,

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Table 10. **The Mediated Effects of Foreign Language Treatments on Immigration Policy Preferences**

I. Spanish Chat Treatment

	Threat Mediator		Immigration Policy Item									
	Cultural threat		Amount of Immigration		Deport Illegals		Official English		Bilingual Services		Delayed Benefits	
Direct Effect	.347*	(.156)	-.069	(.159)	-.110	(.153)	.145	(.147)	.052	(.145)	.129	(.150)
Indirect Effect			.087†	(.045)	.105*	(.050)	.164*	(.073)	.145*	(.067)	.084†	(.043)
	Material Threat											
Direct Effect	.040	(.024)	-.047	(.156)	-.082	(.147)	.228	(.151)	.123	(.152)	.142	(.148)
Indirect Effect			.065	(.041)	.077†	(.046)	.080	(.049)	.074	(.045)	.072	(.046)

II. Web Spanish Treatment

	Language Threat		Amount of Immigration		Deport Illegals	
Direct Effect	.122**	(.045)	.106	(.232)	.425	(.271)
Indirect Effect			.067	(.048)	.120*	(.056)
	Material Threat					
Direct Effect	.067*	(.034)	.089	(.230)	.390	(.248)
Indirect Effect			.084	(.052)	.155†	(.083)

Notes: Entries are the estimated direct effect of the experimental treatments on the threat mediators, and the direct and indirect effects of the experimental treatments on the policy dependent variables. The estimates are based upon results from structural equation models estimated in Mplus. The results for the Web Spanish treatment (Study 3) displayed in the bottom half of the table are the direct and indirect effects of the treatment on perceived threats and immigration policy preferences among White subjects only. All models of the policy dependent variables included controls for gender, income, race (Study 3 only), birth place of subject's parents, Spanish language ability, friends with ESL speakers, ideology, party ID, RWA, SDO, and National Identity. Reported p-values are based upon two-tailed hypothesis tests, †p<.10, *p<.05, **p<.01

particularly collective-level threats to American culture. While most studies typically start with cognitively-based perceived threats, our study demonstrates that actual intergroup experiences can precede the formation of immigration-related beliefs, and thus serve as a more "up-stream" influence on the "down-stream" formation of immigration policy attitudes.

As discussed earlier, residential and occupational segregation often limit the frequency and intimacy of contact between native-born Americans and recent immigrants. Given this segregation, foreign language exposure in ethnically diverse local settings may often occur through impersonal and indirect mediums. Such experiences could include observing business signs and billboards in Spanish as one drives by Hispanic enclaves within their town, observing signs in Spanish at retail stores such as Home Depot or Wal-Mart, or even overhearing others speaking Spanish in public places. Indeed, Hopkins, Tran, and Williamson (2010) find that subtle, brief, and incidental exposure to Spanish language can operate as a powerful implicit cue, activating opposition to immigration. In the following "Web Spanish" experiment, we set out to explore the impact of these more subtle types of impersonal, incidental, and brief foreign language exposures on the perception of threat and support for restrictive immigration policies.

Study 3: The "Web Spanish" Experiment

The Web Spanish experiment differed from the Spanish chat experiment in one important way. Instead of relying upon a foreign language manipulation delivered within a direct, interpersonal communication context, the language treatment in this study involved a more subtle manipulation, namely an unexpected, incidental, and brief exposure to a Spanish language website. This manipulation was intended to simulate real world exposure situations, such as

passing by signs in Spanish or the emergence of Spanish signs at a familiar retail store.

Experimental Design and Procedure

Undergraduate students at Stony Brook University were recruited to participate in the study for extra credit in the various political science courses they were enrolled in. Of the 184 students who participated in the study, 46.7 percent were White, 34.2 percent identified themselves as Asian/Pacific Islander, and 18.9 percent were Black, Hispanic, Middle Eastern, or another ethnicity. Gender, partisanship, and ideology were roughly evenly distributed across the sample and the two experimental conditions.

As in Study 2, subjects were led to believe they were participating in consumer research. Participants were told that they were going to be randomly assigned to assess a website (e.g., in this case, the U.S. Housing and Urban Development website), and that they were going to be given 3 navigation search tasks to familiarize themselves with that website. The HUD website was chosen because at the time of the study (spring semester of 2009), the English and Spanish versions of the website were nearly identical in color, format, and general appearance. For the first navigation task, all participants, regardless of condition, were asked to locate information about "What is a HUD home?" Participants were instructed that the purpose of the navigation was simply for them to get a feel for the website, so that they could evaluate its "user-friendliness"; participants were instructed to take no longer than 5 minutes for each navigation task. After completing the first navigation task, participants closed the HUD website, and returned to the main experimental page, where they were asked two questions about their findings. After these questions, they were then sent on a second navigation task, asked questions about their navigation findings, and then sent on a third and final navigation task.

The main treatment of the study involved varying what occurred during the third navigation task; for those participants in the control condition, the third task was the same as the previous two, which requested subjects to look for specific information on the HUD website. For participants in the treatment condition, however, subjects were "accidentally" directed to the Spanish language version of the HUD website to search for information about "how one might apply for a HUD grant." At the top of the Spanish language HUD website, there was an "En Ingles" button to click to return to the English site; the vast majority of study participants in the treatment condition located this button within a matter of 10 seconds or less. Thus, we believe that our treatment truly involved a very incidental and brief foreign language exposure. After completing the navigation tasks, all participants answered a series of deception bolstering filler questions and then completed a target survey questionnaire. Similar to Study 2, less than 2% of the sample reported believing the study had anything remotely to do with immigration, and no study participants reported believing the purpose of the study was about language use.

To assess the effect of our web Spanish treatment on the perceived threats of immigration, we included the same 5 material threat items from the prior experimental study (α=0.86). The attitude survey administered to subjects in this study did not contain the single cultural threat item contained in Study 2; however, the survey did include 3 items from the language sub-scale of the assimilationist threat scale (Paxton & Mughan, 2006). Paxton and Mughan (2006) argue that in the U.S. case, cultural threat should be conceptualized and properly measured as resentful perceptions that immigrants are failing to assimilate. The language subscale of the assimilationist threats scale taps the degree of support for staunch adoption and

usage of the English language by immigrants.[40] These three items were combined into a single summative scale (α=.63) and recoded to range from 0 to 1 (1=high language threat).

To test the effect of our treatment on immigration policy preferences, we also included two items utilized in Study 2, namely the question regarding (1) preferences over the amount of immigration and (2) the question tapping support for the U.S. government working to deport all illegal immigrants back to their home countries. Given the ethnically diverse nature of our sample, as well as our primary interest in the effects of foreign language exposure on native born white Americans, our models included interactions of the dichotomous web Spanish treatment variable with a race dummy variable. The race variable was coded "1" for participants from a minority ethnic group, "0" for white participants. As in Study 2, all models included controls for gender, income, place of birth of parents, ability to speak a foreign language, ideology, party identification, RWA, SDO, friendship with ESL speakers, and national identity (the coding of each variables is the same as in Study 2).

Due to the ordinal nature of the policy variables (similar to Study 2) we estimated structural equation models to discern the direct effect of our web Spanish treatment on the two threat variables and the direct and indirect effect of our treatment on the two policy variables through each of the two threat variables. As before, we used ordered probit link functions for these models and estimated the parameters using weighted least squares in the software package Mplus®. In addition to assessing the conditional marginal effect of the treatment on the perceptions of material and language-based assimilation threats, our modeling procedure allows

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[40] We included the following items from the language subscale of the assimilationist threat scale: (1) "Immigrants need to communicate effectively in English in their daily lives," (2) "Immigrants don't have to speak in English in public places all of the time," and (3) When in the company of Americans, immigrants need to speak to each other in English even if it is easier for them to use a common native language." There were 7 ordered response options for these three items, ranging from "strongly agree" to "strongly disagree."

us to explore whether the impact of the treatment on immigration policy preferences is mediated by threat perceptions. All independent variables were recoded to range from 0 to 1.

Results

The results displayed in Table 9 (second column) reveal that, among Whites, incidental and brief exposure to the Spanish-language-version of the HUD website significantly increased the perception that immigrants pose language-assimilation and material threats relative to those in the control condition. The significant and negative interaction terms indicate that the marginal effect of the treatment, when assessed among non-white minority study participants, is significantly attenuated.[41] To illustrate this effect more clearly, among white subjects, the difference in the predicted value on the language threat scale when moving from the control to the treatment condition (holding all other variables at their means) resulted in a change from 0.28 to 0.40, which represents a 12 percent change on the scale of the dependent variable. In contrast, among non-white subjects, the change in perceived language threat in moving from the control 0.29 to the treatment condition 0.32 produced a slight difference of 0.03. Turning to material threats, the predicted value of material threat among Whites, holding all else at their means, moves from 0.42 for those in the control group to 0.49 for those receiving the web Spanish treatment. In comparison, the change in predicted value among non-white participants resulted in a movement from 0.44 to 0.49. In line with the findings from Study 2, these results reveal that exposure to an unfamiliar language—this time in an impersonal and incidental manner—enhance the perception of the threats posed by immigrants but impacts cultural concerns to a much larger

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[41] One possible concern is that there is heterogeneity among distinct groups of non-White subjects. For example, Hispanics may react differently to a Spanish-language manipulation than African American or Asian subjects. To address this concern, we re-ran each moderated regression equation excluding the 11 Hispanic subjects from the analysis. We find that the results remain fundamentally unchanged. We also re-ran the analyses on subsamples of White-only subjects and find that the direction and significance of the treatment remained positive and statistically significant.

extent than material concerns. In contrast to existing work employing a weaker form of impersonal and incidental exposure to the Spanish language (Hopkins et al., 2010), the effect of the Web Spanish treatment on the attitudes of white subjects operated in a direct, unconditional, fashion.

Next, we turn to our analysis of the mediated effects of the web Spanish treatment on the immigration policy preferences of white subjects (see the bottom half of Table 10). First, among Whites we see that the web Spanish treatment failed to exert any significant direct effects on immigration policy preferences. The treatment, however, did exert significant indirect effects on support for deporting illegal immigrants through its impact on the perception of language and material threat, though the indirect effect was only marginally significant in the later case. For preferences over the amount of immigration, the results reveal that, while in the predicted direction, the treatment failed to exert significant indirect effects through perceived assimilationist or material threats. We should note, however, that these indirect effects are marginally significant in one-tailed, as compared to two-tailed, hypothesis tests. In sum, and similar to the findings from Study 2, the results from these mediational analyses point toward culturally-oriented concerns—in this case immigrants' adoption and usage of the English language—as a prominent medium through which real, yet subtle, exposure to foreign language might influence immigration policy preferences.

CONCLUSION

The contrasting of realistic, economic threats and symbolic, identity-based threats as competing explanations for opposition to immigration has been useful in furthering our understanding of anti-immigrant sentiment. However, this framework has led to the implicit

equation of cultural threat with the symbolic and contributed to the underdevelopment of alternative bases for cultural threat. In this paper, we argue that real, intercultural contact and exposure to unfamiliar cultural stimuli, such as a foreign language, generates tangible, yet non-economic, threats to the individual. Namely, our theoretical perspective emphasizes how the increased prevalence of linguistically unassimilated immigrants within one's local environment, and the resulting presence of language barriers to the completion of basic everyday tasks and social interactions, challenge a core aspect of Americans' social and cultural competencies with their surrounding environment. It is through this presumed mechanism that we believe exposure to unfamiliar language enhances the perceived threats of immigration and thus leads to increased political opposition to immigration.

In Study 1, we demonstrated that personal contact with non-English speakers increased the likelihood that Whites feel culturally threatened, which in turn, increases support for restricting immigration levels and deporting illegal immigrants. We feel that this study is an improvement over previous research that relies on indirect measures of contact such as the local immigrant population size. Studies 2 and 3 compliment our survey-based findings by demonstrating that two distinct forms of exposure to the Spanish language directly cause increased feelings of threat, which increases support for anti-immigrant policies. In addition to demonstrating tangible bases for the experience of cultural threat, these studies add to our understanding of the dynamics underlying opposition to immigration by identifying real experiential factors that causally precede threat perceptions.

Of course, we are the first to admit that the results presented in support of our realistic, language-centered conceptualization of cultural threat are far from perfect. We acknowledge that the results presented in Studies 2 and 3 relied upon undergraduate university students from the

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east coast. More importantly, while demonstrating links between foreign language and opinion on immigration, the evidence does not directly observe the micro-level mechanisms theorized to link language exposure to attitudes. Yet, these limitations aside, the evidence presented across the three studies does take a solid first step broadening our conceptualization of cultural threat to include "real" individual-level experiences. We believe that an important step for future research in this area would be to substantiate the mechanisms stipulated in our theory linking exposure to unfamiliar cultural stimuli to opinion on immigration. Such mechanisms could include the experience of emotional distress or disorientation, as well as frustration or anger in response to experienced barriers to effective interpersonal communication and exchange.

Chapter 5: Conclusion

The collection of articles presented in this dissertation demonstrate that cultural threat, rather than being restricted to symbolic concerns and stemming from personality factors or ingrained affective orientations, pertain to tangible outcomes associated with immigration and stem from realistic factors, such as changes in one's ethnic context or contact with culturally unfamiliar immigrants posing barriers to communication and exchange. Further, the collective evidence presented across these articles demonstrate a nuanced causal chain, where these realistic factors influence policy preferences indirectly, through their effect on cultural threat perceptions, and the effect of cultural threat perceptions, in turn, on policy preferences. In addition to contributing to the literature by contributing to the theoretical development of the concept of cultural threat, this dissertation contributes to the opinion literature on immigration by revealing the mediated nature of the effects of concrete tangible factors on policy preferences via cultural threat perceptions.

As laid out in the conclusions of each article, one important implication of the acculturation framework and the findings of this dissertation is that opposition to immigration, at least as triggered by realistic cultural threat, may not be static over time. Indeed, as demonstrated in Chapters 2 and 3, as individuals become more exposed to foreign individuals and culture, become acclimated to higher levels of diversity, and thus gain more cultural competence, feelings of cultural threat will likely dissipate over time. As feelings of cultural threat dissipate, a key basis for opposition to immigration will be lessened. This suggests that anti-immigrant sentiment may be a spatially segmented and dynamic process, where the spread of immigrant minorities into previously homogeneous areas will be followed by initial outbreaks of opposition that may subside over time. As diversity becomes ubiquitous, and key immigrant

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minorities, such as Hispanics, come to have a presence in most towns and cities across the U.S., we could expect to see a general decline in the level of aggregate anti-immigrant sentiment and policy support in the U.S.

There are many directions to take future research in response to the questions left open by my dissertation research. One such direction would be to more fully explore the micro-mechanisms underlying the hypotheses laid out in each article that are not directly observed. For example, the erosion of one's feelings of competence in navigating one's surrounding cultural environment is cast as a key mechanism underlying my hypotheses. Future research could more directly measure this construct, and determine whether it in fact serves as the vehicle through which residing in an acculturating context or encountering unassimilated immigrants triggers the perception that immigrants are culturally threatening. In addition, future research could determine whether there are additional factors—beyond one's standing diversity experiences— that shape how individuals react to residing in changing ethnic contexts or encountering unassimilated immigrants. For example, extant research on personality and politics suggests that key personality traits pertaining to openness to experience and tolerance of uncertainty underscore the liberal/conservative divide among the American mass public. It is likely that these personality traits also condition how citizens react to ethnic change and increasing diversity. One fruitful direction for future research would be to explore whether these personality traits moderate the effects of context and contact on threat perceptions and policy preferences. Last, future research could explore the findings from this dissertation, which was all at the individual-level, at the aggregate level. For example, future research could explore whether the degree of acculturation occurring within contexts within larger political entities, such as a state, influence the adoption of restrictive immigration policies.

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Appendices

APPENDIX A
The Use of the Hispanic Population for the Analysis

Here, I discuss the use of the Hispanic population as the immigrant group selected to test the theory and hypotheses in this article.

First, scholars in the field commonly use measures of the Hispanic population, rather than the foreign-born population, to test theories of the effect of ethnic context on opinion on immigration (e.g., Burns and Gimpel 2000; Citrin, Reingold, and Green 1990; Hood and Morris 1997; Rocha and Espino 2009; Stein, Post, and Rinden 2000). The characteristics and salience of the Hispanic population in the U.S. support this practice in the opinion research and in the present analysis. Hispanics are the largest and fastest growing non-Black ethnic minority group in the U.S. Moreover, they constitute the majority of the U.S. foreign-born population and are consistently the largest group among new immigrants into the country (Passel, Cohn, and Lopez 2011). In addition, data from the U.S. Census Bureau indicates that growth in the Hispanic population constituted the majority (56%) of the nation's total population growth over the past decade (2000-2010).

These demographic trends are likely the root of why Hispanics are the most salient immigrant group in the American political scene. For example, news stories mentioning immigration refer to Hispanics nearly twice as often as the next most mentioned group (East Asians), and more stories spotlight Hispanic immigration than immigration from all other regions combined (Pande 2006; Brader, Valentino, and Suhay 2008). Given the scale and persistence of, as well as media focus on, Hispanic immigration, it is not surprising that concern over Hispanic immigration has grown among the American public (Domke, McCoy, and Torres 1999). Research has demonstrated that more than any other immigrant group, Hispanics are

strongly associated with immigration in the minds of American citizens (Domke et al. 1999), and that White Americans are most likely to oppose immigration in response to stories about the costs of immigration when they feature Hispanic immigrants (Brader, Valentino, and Suhay 2008).

Most important for the present analysis, however, is the link between cultural threat and Hispanic immigration in the U.S. Hispanics, in contrast to other contemporary and historical immigrant groups, have been argued to pose a unique and unprecedented challenge to American society due to their distinct failure to assimilate into mainstream Anglo-American culture (Huntington 2004). The link between Hispanics and concern over cultural assimilation is stronger than with Asians, for example, who are often stereotyped as "model minorities" who successfully assimilate into American society (Kim 1999). This is reinforced by several opinion studies finding that, while residential proximity to large Asian populations reduces Anglo opposition to immigration, proximity to large Hispanic populations augments anti-immigrant sentiment (Ha 2010; Hood and Morris 1997). All of these considerations together lend support to the use of the Hispanic population as the target immigrant group for testing the acculturating contexts hypothesis.

Question Wording from 2005 Citizenship, Involvement, Democracy Survey

Notes: Labels in parentheses are the label of each variable as appears in the CID survey.

Education
Respondents were asked to list the highest grade in school or year of college completed (EDUC). Item has 8 response options, ranging from (1)-"None, or grade 1-8" to (8)-"Post-graduate training/professional schooling after college."

Income
My measure of respondent income was based upon a corrected and adjusted constructed income scale contained in the CID (INCOMEC) measuring respondents' total annual net household income. This ordinal item has 11 categories, ranging from (1)-"Less than $15,000" to (11)-"$200,000 or more."

Age
Respondents were asked how old they were (AGE). Mean age was 45. When recoded to range from 0 to 1, mean age is .37.

Citizenship Status
Respondents were asked whether or not they were born in the United States (BRNCNTR). This item is dichotomous, with (1)-"born in U.S." and (0)-"not born in the U.S."

Employment Status
This is a dichotomous item, with unemployed respondents coded "1" and all others coded "0". Respondents classified as unemployed were those who reported being "unemployed and actively looking for a job" and/or "unemployed, wanting a job but not actively looking for a job." Based on items (UEMPLA) and (UEMPLI).

Pocketbook Economic Evaluations
Respondents were asked to select among provided statements which come closest to how they feel about their household's income at the time of interview (HINCFEL). This ordinal item has 4 response options, ranging from (1)-"Living comfortably on present income" (2)-"Coping on present income" (3)-"Finding it difficult on present income" (4)-"Finding it very difficult on present income".

Party Identification
Standard 7 point scale pre-constructed by CID (PARTYID). This variable was recoded to range from "Strong Democrat" to "Strong Republican."

Ideology
Respondents were presented with the following question (LRSCALE): "We hear a lot of talk these days about liberals and conservatives. Where do you fall?" Respondents were given 11 response options, ranging from (0)-"liberal" to (10)-"conservative".

Hispanic Affect
Using a scale of "liking and disliking," respondents were asked to state how they felt about "Hispanic people" (AHISP). This item has 11 ordered response options, ranging from (1)-"Dislike a Great Deal" (4)-"Dislike" (6)-"Uncertain" (8)-"Like" (11)-"Like a Great Deal." This item was recoded to range from "Like a Great Deal" to "Dislike a Great Deal."

National Identity
Pre-constructed scale in CID (NATPRIDE). Based on an item asking respondents how proud it makes them to be called an American (NATIO1), and an item asking soliciting agreement or disagreement with the statement, "Being an American is a very important part of how I see myself" (NATIO2). The constructed scale is coded to range from low to high strength of national identity.

Right Wing Authoritarianism
This scale was created from a set of survey items closely approximating standard measures of right wing authoritarianism. A summative scale was created from the following items in the survey: (ORDER1), (ORDER2), (ORDER3), (CHILDA2), (CHILDA3), (AUTHOR3), (AUTHOR4), (DOG1), (DOG2), (DOG3), (DOG4), and (DOG5). The Cronback's alpha for this scale=.775.

Immigrant Friends & Family
Respondents were asked whether or not they had any close friends who are "Recent immigrants to the United States: those who have been in the country for less than 5 years" (CLOCHAR7). This item is dichotomous, and was recoded so that (1)-"Yes" and (0)-"No."

APPENDIX C
Discussion and Analysis of Alternative Moderating Variables

An anonymous reviewer suggested the possibility that several qualities of Hispanic populations that may vary with group size, such as the degree of cultural assimilation or diversity (i.e. national origins), may be responsible for driving the effects, and thus serve as the true moderators rather than 1990 Hispanic population size. For example, the pattern of marginal effects observed for Hispanic growth on cultural threat across levels of Hispanic 1990 could be attributed to the possibility that smaller Hispanic populations are more likely to be "new destination" sites comprised of recent and culturally unassimilated immigrants; thus, Hispanic growth may trigger cultural threat the most in areas where the pre-existing Hispanic population is the least culturally assimilated and have less of an impact on threat perceptions in areas where the extant Hispanic population is more culturally assimilated, thus less culturally threatening. Additionally, smaller Hispanic populations may be more homogeneous in terms of national origin, whereas large Hispanic populations may be more likely to contain Hispanics from a variety of countries. One possibility is that Hispanic populations that are more diverse may be less likely to work together to achieve political and civic ends, and thus may be less threatening to the power and resources of Whites. If one or both of these factors, and not 1990 Hispanic population size, are driving the results, then my theory would be in need of revision concerning the conditions under which immigrant growth leads to cultural threat.

To address this issue, I collected additional data from the 1990 and 2000 Decennial Censuses of U.S. Census Bureau to obtain a measure of (1) the degree of cultural assimilation of the Hispanic population within a Respondent's county of residence, and (2) the heterogeneity of the Hispanic population within a Respondent's county of residence. All analyses using this additional data were done using the 2005 CID data. The best measure of the degree of cultural

assimilation of the Hispanic population within a county collected by the Census pertains to English language speaking abilities of persons speaking Spanish at home within the county. I created a measure, labeled *Percent No English 1990*, to capture the size of the Spanish language speaking population within a county in 1990 that speaks English "not well" or "not at all." Within the CID data, the correlation between county level percent Hispanic and Percent No English in 1990 is r=.57. To obtain a measure of the diversity of the Hispanic population within a county in 1990, I relied upon Census information about the country of origin of persons identifying as Hispanic; specifically, the Census indicates whether the persons of Hispanic Origin in each county are "Mexican," "Puerto Rican," "Cuban," or "Other Hispanic." With this information, I constructed a Herfindahl Index as a measure of the diversity of the Hispanic population within a county. This index has been used by leading scholars to measure the degree of ethnic homogeneity in a designated area (e.g. Putnam 2007). The index ranges from 0 to 1, with lower values indicating greater diversity and higher values indicating greater homogeneity. For present purposes, this index is used as an indicator of the degree to which the Hispanic population within a county is dominated by any one type of Hispanic designated in the Census. The index was created by estimating the percent of the county Hispanic population that are of each of the four designations, and then summing the product of each of these values squared. For example, Cleburne County, Alabama had a 1990 Hispanic population of 38 persons, 33 (or 86.8%) of which were Mexican, and 5 (or 13.2%) of which were Puerto Rican, yielding an index value of: $(.868^2 + .132^2)= .77$, indicating a very low level of diversity. The most balanced Hispanic population in my data was in Bradford County, Florida, which had 426 Hispanics in 1990, of which 101 were Mexican, 109 Puerto Rican, 113 Cuban, and 103 "Other." The resulting index value for Bradford County, FL is .25. This measure of the diversity of the Hispanic

population within a county in 1990, labeled in my analysis ***Hispanic Diversity 1990***, was positively correlated with 1990 Hispanic population size, r=.54, which indicates that larger Hispanic populations also tend to be more homogeneous (i.e. dominated by one of the four designations of types of Hispanics).

To test these competing moderators, and to determine whether my results hold in the presence of these competing moderators, I re-ran the random intercept regression model for Cultural Threat presented in column 1 of Table 1, only this time included the interaction of Hispanic Growth with (1) *Percent No English 1990*, and (2) *Hispanic Diversity 1990*, as well as their respective constituent terms. Estimating this model will allow me to test whether Hispanic 1990 or one of these alternative variables serve as the underlying factor moderating the effect of Hispanic Growth. The results from this analysis are presented below in Table A. As can be seen, the results for the interaction of Hispanic Growth and Hispanic 1990 hold in the presence of the interaction of Hispanic Growth with these competing factors. The constituent term for Percent No English is highly significant and positive, but the interaction term fails to attain conventional levels of statistical significance. Note, however, that the interpretation of this interaction of Growth and assimilation is against the expectation discussed above, such that Hispanic Growth in contexts with minimal linguistically unassimilated Hispanics significantly *increases* cultural threat, but that Growth in contexts with much more linguistically unassimilated Hispanics marginally *decreases* cultural threat. Last, the results in Table A reveal that the level of diversity of the Hispanic population in a county plays no role in conditioning the effects of Hispanic Growth. It should also be noted that in an additional analysis omitting Percent Hispanic 1990, Percent No English, and their interaction terms, and focusing ONLY on the interaction of Hispanic Growth and Hispanic Population Diversity 1990, the results, while only marginally

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significant, are again in the wrong direction: Hispanic Growth (b=.27 , se=.10, p<.05), Hispanic Diversity (b=.09 , se=.09, n.s.), Interaction Term (b= -.36 , se=.21, p<.10). Because the Diversity index is ranges from high to low diversity, the interpretation of this effect is that Hispanic Growth in counties with highly diverse pre-existing Hispanic populations significantly increases cultural threat, and that Hispanic Growth in counties with the least diverse pre-existing Hispanic populations marginally decreases cultural threat. This finding is contradictory to the expectation discussed above, where threat was speculated to decrease as growth occurs in contexts with more diverse Hispanic populations.

The null findings for the interaction of Hispanic Growth with Percent No English 1990 and Hispanic Diversity 1990 and the persisting significance of the interaction of Growth with percent Hispanic 1990 in the presence of these additional interactions provides additional support for the acculturating contexts hypothesis by countering two plausible alternative explanations for the results presented in Table 1.

TABLE A.   Effect of Hispanic Growth Conditional Upon Prior Size, Assimilation, and Diversity
(2005 U.S. Citizenship, Involvement, Democracy Survey)

	Cultural Threat	
County-Level		
Hispanic Growth	.408*	(.162)
Hispanic 1990	.124	(.098)
(Growth) x (1990)	-.649*	(.268)
Percent No English 1990	.278**	(.104)
(Growth) x (Percent No English)	-.555	(.297)
Hispanic Diversity 1990	-.079	(.101)
(Growth) x (Hispanic Diversity)	.247	(.260)
Bush Vote 2004	.159	(.057)
Unemployment Rate	.096	(.094)
Individual-Level		
Education	-.112***	(.031)
Income	.066	(.041)
Male	.012	(.015)
Age	.017	(.034)
Unemployed	-.021	(.032)
Pocketbook Evaluations	.125***	(.033)
Born in the U.S.	.075	(.050)
Ideology	.089*	(.040)
Party ID	.011	(.025)
Right Wing Authoritarianism	.408***	(.057)
Hispanic Affect	.141***	(.043)
National Identity	.023	(.050)
Immigrant Friends	.006	(.025)
Level-2 (County) Error Variance	.003	(.001)
Level-1 (Individual) Error	.03	(.002)
Rho	.104	
Likelihood Ratio Test	18.27***	
# of Individuals (Level-1 Units)	725	
# of Counties (Level-2 Units)	104	

Notes: Entries are unstandardized regression coefficients from random-intercept regression models estimated using restricted maximum likelihood. Threat dependent variable was recoded to range from 0 to 1. Likelihood Ratio Test compares the random intercept model to a "completely pooled" model, testing against the null hypothesis that level-2 error variance is equal to zero. * significant at .05, ** significant at .01, *** significant at .001. Reported significance is based upon two-tailed hypothesis tests.

Notes: Labels in parentheses are the label of each variable as appears in the Pew survey.

Cultural Threat
Respondents were asked to choose which of the following two statements came closest to their own view: "The growing number of newcomers from other countries threaten traditional American customs and values," OR "The growing number of newcomers from other countries strengthens American society." A dichotomous item was constructed from this variable with the former statement coded (1) and the later coded (0). Based on (q8d).

Economic Threat
Respondents were asked (q37): "Do you think the immigrants coming to this country today mostly take jobs away from American citizens, or do they mostly take jobs Americans don't want?" From this question, a dichotomous item was created, coded (1)-"take jobs away," and (0) for those responding "take unwanted jobs," "both," or "DK/NA".

Crime Threat
Respondents were asked the following question (q17d_f1): "Please tell me whether each of the following characteristics do or do not apply to immigrants from Latin American countries: significantly increase crime." A dichotomous item was created from this question, coded (1)-"applies" and (0)-"doesn't apply" or "DK/NA".

Amount of Immigration
Respondents were asked (q36): "Should LEGAL immigration into the United States be kept at its present level, increased or decreased?" A three category ordered item was created from this question and coded to range from (1)-"increased" (2)-"kept at its present level" and (3)-"decreased."

Education
Respondents were asked to list the last grade or class they completed in school (EDUC). Item has 7 response options, ranging from (1)-"None, or grade 1-8" to (7)-"Post-graduate training/professional schooling after college."

Income
My measure of respondent income was based upon a question (INCOME) measuring respondents' total pre-tax family income in 2005. This ordinal item has 9 categories, ranging from (1)-"Less than $10,000" to (9)-"$150,000 or more."

Age
Respondents were asked how old they were (AGE). Mean age was 48. When recoded to range from 0 to 1, mean age is .38.

Citizenship Status
Respondents were asked whether or not they were born in the United States (USBORN1A). This item is dichotomous, with (1)-"born in U.S." and (0)-"not born in the U.S."

Employment Status
This is a dichotomous item, with unemployed respondents coded "1" and all others coded "0". Respondents classified as unemployed were those who reported being "Not employed" and "Lost or quit job." Based on items (EMPLOY) and (EMPLOY2).

Sociotropic Economic Evaluations
Respondents were asked (q11): "How would you rate economic conditions in this country today… as excellent, good, only fair, or poor?" A four category ordered item was constructed from this question and coded to range from (1)-"excellent" to (4)-"poor," and then recoded to range from 0 to 1 (1= "poor").

Pocketbook Economic Evaluations
Respondents were asked (q12): "How would you rate your own personal financial situation? Would you say you are in excellent shape, good shape, only fair shape or poor shape financially?" A four category ordered item was constructed from this question and coded to range from (1)-"excellent shape" to (4)-"poor shape," and then recoded to range from 0 to 1 (1= "poor shape").

Local Job Market Evaluations
Respondents were asked (q13): "Thinking now about job opportunities where you live, would you say there are plenty of jobs available in your community or are jobs difficult to find?" A three category ordered item was constructed from this question and coded to range from (1)-"plenty of jobs available" (2)-"Lots of some jobs, few of others" or "DK/NA" (3)-"Jobs are difficult to find," and then recoded to range from 0 to 1 (1="Jobs difficult to find").

Party Identification
A 5 point party ID scale was constructed from two questions: (PARTY) and (PARTYLN). The constructed measure of party ID ranges from (1)-"Democrat" (2)-"Democrat leaner" (3)-"Independent" (4)-"Republican leaner" (5)-"Republican." Recoded 0 to 1 (1=Republican).

Ideology
Respondents were asked to describe their political views on the following scale (IDEO): (1)-"Very conservative" (2)-"Conservative" (3)-"Moderate" (4)-"Liberal" and (5)-"Very liberal." This item was reverse coded to range from "Very liberal" to "Very conservative." Recoded 0 to 1 (1="Very conservative).

Hispanic Affect
Respondents were asked to report how "favorable" or "unfavorable" their overall opinion was toward "Hispanics" (q9c_f1). A four category ordered variable was created from this question and coded to range from (1)-"Very favorable" to (4)-"Very unfavorable." Recoded to range from 0 to 1(1="Very unfavorable").

Immigrant Friends & Family
Respondents were asked whether or not they had any friends or close relatives who are recent immigrants (q23). This item is dichotomous, and was recoded so that (1)-"Yes" and (0)-"No."

APPENDIX E
Assessing the Validity of Self-Reported Contact

One concern with the *Frequency of Contact* measure is its self-reported nature. Given the emphasis placed on real intercultural processes within the contact-threat hypothesis, it is essential to determine the reality, or validity, of this item. The results from an ordered logistic regression of *Frequency of Contact* on the percent foreign-born in respondents' zip code (2000 Decennial Census estimates) and other relevant variables are reported in Table A1. All variables were recoded to range from 0 to 1 for ease of interpretation. The results reveal a significant effect of objective local immigrant populations on reported levels of contact, where an increase in the objective size of local immigrant populations significantly increases the probability of a respondent reporting the highest level of contact with non-English speaking immigrants. Indeed, the effect of percent foreign born dwarfs the effects of all other variables in the model, even those of prejudice toward ethnic minorities. For example, the probability of reporting high contact with non-English speaking immigrants among those residing in zip codes with minimum foreign born populations, holding all else constant, is .43. However, the same probability among those residing in the most immigrant heavy zip codes is .88, yielding substantively large difference of .45. In contrast, moving from the minimum to the maximum level of prejudice toward Hispanics only yields a .13 increase in the probability of reporting the highest level of contact. The strong correspondence between the objective size of the immigrant population residing near respondents and their reported level of contact with immigrants who do not speak English establishes a considerable degree of confidence in the validity of the self-reported contact item and its usage in the present article as an indicator of actual contact with immigrants.

Table A1:   The Determinants of Self-Reported Contact

	B	(SE)	[p-value]
% Foreign Born 2000 (zip)	2.320	0.408	0.000
Education	-0.767	0.236	0.001
Income	0.662	0.253	0.009
Age	-0.013	0.003	0.000
Gender	0.022	0.103	0.828
Unemployed	0.133	0.362	0.713
Sociotropic Evaluations	0.359	0.220	0.102
Pocketbook Evaluations	0.741	0.239	0.002
Local Jobs	-0.279	0.120	0.020
Party ID	0.076	0.148	0.607
Ideology	-0.180	0.269	0.503
Hispanic Affect	0.575	0.268	0.032
Asian Affect	-0.113	0.292	0.698
Thresholds			
Cut1	-3.54	(.421)	
Cut2	-1.39	(.396)	
Cut3	-.016	(.394)	
N		1,460	

Note: Dependent Variable is Frequency of Contact. Entries are unstandardized regression coefficients from an ordered logistic regression.

APPENDIX F
Measuring Diversity Experiences

Here, I discuss the selection of *Immigrant Friends & Family*, *Urban*, and *Multilingual* as the three measures of individual differences in cultural diversity experiences.

Cultural Diversity Experiences is a theoretical construct meant to capture individual differences in accumulated exposure to other cultures and peoples, as well as the possession of cross-cultural skills and competencies imparted by these experiences. While there exist a variety of ways of tapping this construct, such as foreign travel, the diversity of one's childhood neighborhood, school, or university, the best available measures of this construct within the 2006 Pew Survey are the diversity of one's familial and friendship network, area of residence, and spoken language ability. The first measure of diversity experiences is whether or not the respondent has a recent immigrant as a friend or family member (*Immigrant Friends & Family*. Intergroup contact theory (Allport, 1954) predicts that family contact, because of its high degree of intimacy and relative frequency, should strongly decrease negative stereotypes and prejudice toward outgroups. The logic behind the selection of *Immigrant Friends & Family*, which is an extension of intergroup contact theory, is that individuals with more diverse familial or social networks, as indicated by inclusion of a recent immigrant in these networks, are presumed to have a higher degree of routine exposure to a foreign culture and language via these networks than individuals with more homogeneous networks. These network-based diversity experiences should in turn increase one's tolerance to encountering an unfamiliar culture or language and thus decrease the likelihood of being bothered in response to contact with unassimilated immigrants.

The second measure of diversity experiences is whether or not the respondent resides in an urban metropolitan area or a suburban or rural area (*Urban*). Opinion research has demonstrated that Americans residing in rural areas are more supportive of restrictive immigration policies than their urban counterparts, and that this relationship is partly due to a higher degree of cosmopolitan and multicultural attitudes among urban residents (Fennelly & Federico, 2008). The logic behind the use of area of residence as a measure of cultural diversity experiences is that urban metropolitan areas are more ethnically and culturally diverse than many suburban and most rural areas, and that individuals residing in these areas are more likely have routine exposure to foreign people, foods, dress, music, etc., than those residing in more culturally homogeneous suburban and rural areas. Aside from their putative effect of promoting more cosmopolitan and multicultural attitudes, these experiences should decrease the novelty of contact with foreign individuals, increase tolerance to foreign culture, and generate competence in navigating culturally diverse social landscapes. Taken together, these effects of residing in an urban area should decrease feeling culturally disoriented or bothered by cursory contact with unassimilated immigrants involving exposure to foreign culture or language.

The third measure of individual differences in cultural diversity experiences is whether or not the respondent can speak a language other than English well enough to engage in a conversation (*Multilingual*). The logic behind the selection of this item is that multilingualism, as a cornerstone cross-cultural skill, likely indicates the possession of additional cross-cultural skills, competencies, and orientations. These may include enhanced sensibility to the beliefs, values, and norms of other cultures (i.e., cultural awareness), as well as a developed capacity for engaging in cultural accommodation of outgroups (Newman, Hartman, & Taber, 2011), which involves the forfeiting of chauvinistic and hegemonic orientations toward cultural outgroups and

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a comfort with personally incurring the costs in time and effort to bridge gaps in language and cultural understandings in order to constructively interact with members of foreign cultural groups. By indicating a familiarity with and competence in communicating across cultural lines, as well as serving as a proxy for cultural awareness and accommodation, multilingualism should strongly decrease the likelihood of being disoriented or bothered by contact with unassimilated immigrants involving exposure to a foreign language.

The additive scale created from these items, *Diversity Experiences Scale*, has four ordered categories, ranging from "0" for those without immigrants friends or family who are monolingual and reside in a non-urban area (32.6%), "1" for respondents with at least one of these experiences (39.7%), "2" for respondents with any two of these experiences (22.2%), and "3" for those who have an immigrant as a friend or family member, are multilingual, and reside in an urban area (5.5%). This item was recoded to range from 0 to 1 for ease of interpretation.

APPENDIX G
Experimental Data to Address the Issue of Endogeneity

Here, I address the potential issue of endogeneity induced by reverse causation, i.e., that (1) a respondent's attitudes toward immigrants may influence whether or not they are bothered by contact with non-English speaking immigrants, and (2) that a respondent's attitudes toward immigrants may shape their level of diversity experiences.

I will begin by addressing (1), which pertains to the contact-threat hypothesis. Despite the presence of controls for prejudice toward Hispanics and Asians in all the models I estimated, it is nonetheless a possibility that the "bothered by contact" item I use in my analyses is less an accurate measure of actual lived-experience in response to contact than a measure of prejudice and pre-existing attitudes toward immigrants. The principle concern with the bothered item is that prior attitudes toward immigrants may shape individuals reactions to encounters with them, such that people who don't like immigrants are more likely to be bothered by contact with them—and thus, unsurprisingly, I find that being bothered by contact predicts anti-immigrant attitudes. The underlying question of causality then concerns whether contact with non-English speakers causes being bothered, or whether preexisting attitudes simply manifest in how one reacts to such contact. The principle demonstration required to support the contact-threat hypothesis is the demonstration that, holding prior attitudes toward immigrants constant, contact with non-English language speakers and exposure to language barriers increases negative emotions.

To this end, I conducted two experiments involving manipulated exposure to foreign language. An experimental approach enables the demonstration of causation and allays concerns over endogeneity through controlled treatments and random assignment. Both experiments used

the experimental software program MediaLab®. The first experiment was conducted at a large

Northeastern University and relied upon a sample of 86 white non-Hispanic undergraduate

student subjects. These students were brought into the lab under the guise of participating in a

consumer research study to evaluate the user-friendliness of various websites. After navigating a

website and answering some questions, all subjects were told that they were going to participate

in an on-line "focus group" style chat with a student participating in the study from another

research cite. All subjects were assigned to receive questions from, rather than ask questions to,

the chat discussant, and all subjects received 6 questions. The discussant, unbeknownst to the

subjects, was a computer program set up to deliver a scripted set of questions. The primary

manipulation of the study came in the form of whether each of the 6 six questions were

completely in English (control condition) or whether 4 of the 6 questions contained a significant

portion of the question in Spanish. For example, the control group version of the one of the six

questions was: "Just finished looking at some sites. What website did you search?" The

treatment group version of the question was: "Just finished looking at some sites. *Qué website*

tuviste que buscar?"

The purpose of this experiment was to demonstrate that manipulated exposure to a

foreign language speaker and experienced language-based barriers to interpersonal

communication cause individuals to experience negative emotions. Subjects were randomly

assigned to either the control or treatment condition, and negative emotions were measured

following the treatment with four items taken from the Positive and Negative Affect Schedule

(PANAS; Watson, Clark, and Tellegan 1988). These items asked subjects to report the degree to

which they presently felt "upset" "hostile" "irritable" and "distressed"; these four item were

combined into a summative scale (α=.77) and recoded to range from 0 to 1, with higher values

indicating greater negative emotion. A bivariate regression of negative emotions on a dichotomous treatment variable (1=treatment) using OLS reveals that receipt of the treatment significantly increased subjects' reported experience of negative emotions (b= .076, se= .038, p= .02, one-tailed). This result provides support for the contact-threat hypothesis by demonstrating that intergroup contact involving exposure to unfamiliar language and barriers to communication causes the experience of negative emotions.

To provide an additional layer of support, a second experiment was conducted at a Southeastern University that relied upon an impersonal exposure to foreign language. Subjects received the same cover story as in the first study, however, rather than participating in an on-line chat discussion, subjects were asked to conduct three separate navigation tasks of the website for the Department of Housing and Urban Development (HUD) in order to evaluate its "user-friendliness." The removal of the chat discussion segment of the study significantly decreased the length of the experiment, enabling the collection of data from 224 undergraduate student subjects (92 percent of the subjects were non-Hispanic white). The main manipulation of this experiment involved varying what occurred following the third navigation task assigned to subjects. For each navigation task, subjects were asked to locate some information on the HUD website, navigate the cite, and then return to the experiment page and answer a series of questions. For subjects in the control condition, the English language version of the HUD website opened in a web browser following the receipt of each of the three navigation task instructions. For those in the treatment condition, the Spanish language version (identical in template and color to the English language version) of the HUD website opened in a browser following the third navigation task instructions.

To assess the effect of this experimental treatment on the experience of negative emotions, subjects reported their level of "distress" (5 response categories, 5= very distressed) at the end of the experiment. A bivariate ordered logistic regression analysis of self-reported distress on a dichotomous treatment variable (1=treatment condition) revealed that the probability of reporting being "very distressed" was significantly higher among subjects in the treatment condition (b= .389, se= .253, p=.06, one-tailed). Taken together, the results from these experiments support a key link in the causal chain argued by the contact-threat hypothesis, which is that the experience of language barriers can cause negative emotions.

Moving on, one primary concern with the results for the diversity experiences hypothesis is that an individuals' attitudes toward immigrants may influence whether or not they develop diverse cultural experiences. The logic of the diversity experiences hypothesis is essentially that diversity experiences moderates the relationship between contact with unassimilated immigrants and one's emotional response, such that those with diverse experiences are less bothered and those with homogeneous experiences are more bothered. It is possible, however, that those who like immigrants seek out more diverse experiences, and therefore are not bothered by contact, while those who do not like immigrants avoid diversifying experiences—such as learning another language, having outgroup friendships, or residing in diverse areas—and thus get bothered by contact. In short, the concern is that neither diversity experiences nor contact with immigrants in the first place is exogenous to individuals' attitudes toward immigrants. The principle demonstration required to support my diversity experiences hypothesis is that, holding attitudes toward immigrants constant (via random assignment), that an exogenous treatment involving the exposure to foreign language impacts emotional responses, but that the effect of this exogenous treatment is moderated by diversity experiences.

To this end, a third experiment was conducted at a large Northeastern University, which relied upon a sample of 128 non-Hispanic white undergraduate student subjects. The format of this experiment was completely the same as that of the second experiment, however, subjects diversity experiences was measured in order to determine the effect of the experimental treatment on negative emotions conditional upon subjects' level of diversity experiences. The experimental treatment, again, involved manipulated whether or not the HUD website appearing in the internet browser that opened after subjects received their third navigation task was in English (control group) or in Spanish (treatment group). Diversity experiences were measured through four items asking respondent's about the racial, religious, and linguistic diversity of their friendship network and neighborhoods. For example, one of the four items asked subjects: "Of your close friends, about how many would you say were raised speaking a language other than English?" Subjects reported on a scale of (1)-"None" to (9)-"All" the level of diversity of their social network to each of these respective questions. These items were combined into a summative scale (α= .61). A scale of negative emotions (α= .76) was created from post-treatment questions at the end of the experiment asking subjects to report the degree to which they felt "upset" "hostile" "irritable," and "distressed." All variables were recoded to range from 0 to 1.

A dichotomous experimental treatment variable was created (1=treatment) and interacted with the network diversity scale, and subjects' level of negative emotions was then regressed using OLS upon the treatment, network diversity, and their interaction. The results from analysis reveal that among those with the least diverse networks, receiving the treatment significantly increased the experience of negative emotions (B=.147, SE= .072, p< .022, one-tailed). There was also a significant interaction of the treatment with network diversity (B= -.473, SE= .177, p<

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.004, one-tailed), indicating a significant decrease in the experience of negative emotions in response to the treatment among subjects with the most diverse social networks.

APPENDIX H
Question Wording from 2006 Pew Survey on Immigration

Note: Labels in parentheses are the label of each variable as appears in the Pew survey.

Education
Respondents were asked: "What is the last grade or class that you completed in school?" (EDUC). Response options ranged from (1)-"None, or grade 1-8," to (7)-" Post-graduate training or professional schooling after college."

Income
Respondent's income was measured with the following question: "Last year, that is in 2005, what was your total family income from all sources, before taxes?" (INCOME). Response options range from (1)-"Less than $10,000" to (9)-"$150,000 or more."

Age
Respondents were asked how old they were (AGE).

Employment Status
Respondent's employment status was obtained using two survey items. The first survey item (EMPLOY) asked respondents: "Are you now employed full-time, part-time or not employed?" For those respondents reporting "not being employed," the following question was asked: "Is that because you are a student, because you are retired, because you choose not to work, or because you've lost or quit a job?" The resulting measure, *Unemployed*, is dichotomous, and coded "1" for those respondents reporting being unemployed because they "lost or quit a job," and "0" for all other respondents.

Sociotropic Evaluation
Respondents' sociotropic economic evaluations were measured with the following survey item (Q.11): "How would you rate economic conditions in this country today… as excellent, good, only fair, or poor?" Response options ranged from (1)-"Excellent" to (4)-"Poor."

Pocketbook Evaluation
Respondents' evaluation of their own personal financial situation was measured with the following survey item (Q.12): "How would you rate your own personal financial situation? Would you say you are in excellent shape, good shape, only fair shape or poor shape financially?" Response options ranged from (1)-"Excellent shape" to (4)-"Poor shape."

Local Job Market
Respondent's evaluation of their local job market was measured with the following item (Q.13): "Thinking now about job opportunities where you live, would you say there are plenty of jobs available in your community or are jobs difficult to find?" The variable created from this item ranges from (1)-"Plenty of jobs available" to (3)-"Jobs are difficult to find."

Party Identification
This item is constructed from two survey items: (PARTY) and (PARTYLN). The range of this constructed variable is: (1)-"Democrat" (2)-"Democratic Leaner" (3)-"Independent" (4)-"Republican Leaner" (5)-"Republican."

Ideology

To measure liberal-conservative ideological self-identification, respondents were asked how they would describe their political views (IDEO). There were 5 response options provided for this question, ranging from (1)-"Very conservative" to (5)-"Very liberal." This item was recoded to range from "Very liberal," to "Very conservative."

Hispanic and Asian Affect
Respondents were presented with the following question: "I'd like your opinion of some groups. As I read from a list, please tell me which category best describes your overall opinion of the group I name. (First,) would you say your overall opinion of is very favorable, mostly favorable, mostly unfavorable, or very unfavorable?" (Q.9F1). Then respondents were asked this question in reference to "Hispanics," and then again in reference to "Asians." Response options for these items range from (1)-"Very favorable" to (4)-"Very unfavorable."

APPENDIX I
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