
Article:
Newman, B.J., Hartman, T.K. and Taber, C.S. (2012) Foreign language exposure, cultural threat, and opposition to immigration. Political Psychology, 33 (5). 635 - 657. ISSN 1467-9221

https://doi.org/10.1111/j.1467-9221.2012.00904.x

Foreign Language Exposure, Cultural Threat, And Opposition to Immigration

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Abstract

In the present article, we extend the notion of cultural threat posed by immigrants beyond its current conceptualization as symbolic, collective-level threats to American culture and identity. Instead, we argue that routine encounters with non-English-speaking immigrants cause many individuals to feel threatened because of real barriers to interpersonal communication and exchange. We draw upon survey and experimental data to demonstrate that local contact with immigrants who speak little to no English, as well as incidental exposure to the Spanish language, heighten feelings of cultural threat, which increases anti-immigrant sentiment and policy preferences.

Keywords: Immigration, threat, acculturation, language

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[1] reveals that 62% of first-generation Hispanic immigrants, or 11 million people,[2] 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[3] 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[4] 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.[5]

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

[1] The Pew Hispanic Center/Kaiser Family Foundation 2002 National Survey of Latinos contained responses from 2,929 Hispanic adults. See publication #3300.
[2] Figure based upon the American Community Survey's 3-year estimates from 2006-2008.
[3] 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).
[4] 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.
[5] Pew Hispanic Center/Kaiser Family Foundation 2004 National Survey of Latinos.

linguistically homogeneous nations (Thernstrom, 1980), with nearly 82 percent of the population claiming to only speak English.[6]

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, 1995; Schatz, Sullivan, Flannigan, & Black, 2002; Schildkraut, 2001); yet, there is little empirical work focusing on the effects of personal contact with linguistically unassimilated

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

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 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 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.[7] 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

[7] 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).[8]

[8] 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).[9]

Results

[9] 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 I).[10] 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 cultural threats from immigration is .50. Hence, moving from the lowest to highest level of self-

[10] 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.

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 I), 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 I, 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 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.[11]

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.

[11] 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."[12] 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 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."

[12] 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."

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).[13] 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%).[14]

[13] 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.

[14] 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 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.

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

Table II presents the results for the effect of the Spanish chat manipulation on the perceived cultural and material threats posed by immigrants, and Table III presents the mediated effects of the treatment on immigration policy preferences. Beginning with Table II, 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.[15] 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 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 III 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

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

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 III 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, 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.[16] 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

[16] 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."

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 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 II (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.[17] To illustrate this effect more clearly, among white subjects, the

[17] 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

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 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 III). 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

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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.

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 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.

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Table I. 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

Table II. 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

Table III. 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