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Social Dominance and the Cultural Politics of Immigration

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Abstract

We argue that conflict over immigration largely concerns who bears the burden of cultural transaction costs, which we define as the costs associated with overcoming cultural barriers (e.g., language) to social exchange. Our framework suggests that the ability of native-born citizens to push cultural transaction costs onto immigrant outgroups serves as an important expression of social dominance. In two novel studies, we demonstrate that social dominance motives condition emotional responses to encountering cultural transaction costs, shape engagement in cultural accommodation behavior toward immigrants, and affect immigration attitudes and policy preferences.

Keywords: immigration, transaction costs, social dominance orientation, cultural threat

If politics is about who gets what, when, and how (Lasswell, 1936), then the cultural politics of immigration can be characterized by conflict over who culturally accommodates whom, when, and by how much. At its most basic level, immigration engenders intercultural contact, where actors from distinct cultural groups are forced to interact with one another. One inescapable reality of such intergroup contact is that one or both parties must expend resources to overcome differences in culture and language to facilitate effective interaction, communication, and exchange. We argue that one important dimension of political conflict over immigration concerns whether it is immigrants or native-born citizens who will pay the costs associated with reconciling these cultural differences.

While the economic side of the politics of immigration in the U.S. tends to revolve around issues of labor market competition, wage and salary levels, the consumption of public services, and eligibility for government benefits (Olzak, 1992; Espenshade and Calhoun, 1993; Passel and Fix, 1994; Citrin, Green, Muste, and Wong, 1997; Hero and Preuhs, 2007), the cultural side concerns issues such as official language policy (Citrin, Reingold, Walters, and Green, 1990; Schildkraut, 2001), bilingual and multicultural education (Huddy and Sears, 1995; Citrin, Kiley, and Pearson, 2003), cultural competence in government and business services (Dresser, 2005; Wu and Martinez, 2006), and definitions of our national identity (Citrin, Reingold, and Green, 1990; Citrin and Wright, 2009; Huntington, 2004). We argue that the issues that comprise the cultural side of the conflict can be largely distilled down to controversy over the distribution of the costs associated with assimilation and cultural accommodation. By shaping the balance of immigrant assimilation to Anglo-American culture (and vice versa), these culturally-oriented policies initiate a political arena in which policy decisions over “who accommodates whom” facilitates competition for group status and the expression of social

dominance. As Paxton and Mughan note: “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 this article, we test an integrated theory of the cultural politics of immigration that fuses literature from political economy and political psychology. From political economy, we borrow the concept of transaction costs originating from market exchanges between buyers and sellers and argue that there are cultural transaction costs related to immigration which must be assumed by immigrants, native-born citizens, or both to allow for the successful “exchange” of one country’s natives into another’s social and political body. From political psychology, we draw upon the intergroup relations literature and argue that the conflict which emerges over resolving cultural transaction costs can best be understood through the lens of social dominance theory, which stipulates that groups are hierarchically structured in society and that intergroup conflict arises from competition for dominant group status. Paralleling the type of power manifest in an asymmetrical distribution of transaction costs by a buyer onto a seller, we argue that the ability to impose an asymmetrical incurrence of cultural transaction costs onto immigrants serves as a powerful expression of the dominant status of the native-born cultural majority over immigrant minorities. As such, we rely on the concept of social dominance orientation (SDO) to tap individual differences in chronic social dominance motives. We contend that differences in these motives should influence how individuals will react to encountering cultural transaction costs, as well as their propensity toward pushing these costs onto immigrant minorities as an opportunity to express social dominance.

In two novel studies, we provide evidence of our theory of the cultural politics of immigration. In Study 1, we assess how social dominance motives shape reactions to an

experimentally manipulated cultural transaction cost. In Study 2, we constructed a forum that allowed us to observe the impact of social dominance motives on real behaviors toward cultural outgroups. In sum, this article makes several important contributions to the study of immigration and intercultural relations. First, our analyses demonstrate that restrictive and ethno-nativist immigration policy preferences, as well as the perception that immigrants threaten American culture, can be traced to the intersection of individual differences in social dominance motives and real intercultural contact experiences. Second, we contribute to the literature on social dominance orientation by extending the application of this theory within the domain of immigration and intercultural relations. Extant work on SDO has documented its importance as a predictor of racial and cultural attitudes (Esses et al., 2001; Pratto et al., 1994); however, our research demonstrates its importance to behaviors toward members of cultural outgroups. And finally, our theory provides a compelling illustration of the analytical merits of an interdisciplinary and interactionist approach to the study of politics (Greenstein, 1992). That is, our theoretical framework integrates economic and psychological concepts to address the interplay of personality and contextual experiences in the realm of immigration.

CULTURAL TRANSACTION COSTS

To flesh out our concept of cultural transaction costs, we turn to the field of political economy. Transaction costs are defined as the costs other than the money that are incurred when trading goods and services. Transaction costs typically involve the expenditure of time, effort, and other resources associated with locating and making contact with a trade partner, bargaining and negotiating the terms of an exchange, transporting and delivering goods and services, and monitoring and enforcing contracts (Coase, 1960; North, 1990; Johnson, 2010). One key insight from political economy is that most, if not all, market exchanges involve transaction costs, and

that many otherwise mutually beneficial exchanges are inhibited because the benefits of an exchange do not exceed the costs of transacting. In order for a market exchange to take place, one or both of the trade partners (or some third party) must incur the transaction costs.

Downs (1957) is one of the first scholars to apply transaction costs to political behavior by arguing that non-participation in the electoral process is rational because of the costs associated with obtaining political information to make decisions about candidates and policies. As the field of political economy grew, the concept was applied to a wide range of political phenomena, such as the evolution of political institutions (North, 1990), the formation of political parties (Aldrich, 1995), relations between Congress and the bureaucracy (Huber and Shipan, 2000), the public policymaking process (Levine and Forrence, 1990), and the design of administrative agencies (Wood and Bohte, 2004). At present, however, the concept of transaction costs has not been fruitfully applied to the realm of intercultural relations, nor has it been used to explain political conflicts that arise over the cultural impacts of immigration.

From a neo-classical economic framework, immigration can be conceptualized as an exchange between immigrant-sending and -receiving states (Cornelius, 2005). One of the key features associated with immigration as an exchange is that it entails localized intercultural contact, where actors from different cultural groups come into prolonged, direct contact with one another. We define cultural transaction costs as the resources that must be expended to reconcile cultural differences between distinct groups for the purpose of enabling a market or social exchange. The size of the cultural transaction costs that arise from immigration is a function of the distance between the cultures of the immigrating group and the native-born citizen within the receiving country. The term “cultural distance” is used to describe the entirety of differences in values, beliefs, norms, customs, and language between distinct cultural entities (Earley, Ang &

Tan, 2006; Shenkar, 2001). In addition to serving as the point of origin for and primary determinant of the magnitude of cultural transaction costs, cultural distance is also stipulated as a key factor in shaping the degree to which the influx of an immigrant group activates native perceptions of cultural threat and concern over the maintenance of cultural identities (Brown, 1995; Sniderman et al., 2004).

SOCIAL DOMINANCE AND CULTURAL ACCOMMODATION

Of the variety of personality traits identified in the study of political behavior, social dominance orientation (Sidanius and Pratto, 1999) is an individual difference factor that should strongly shape emotional, attitudinal, and behavioral orientations to intercultural relations and accommodation. Social dominance theory stipulates that human societies tend to be structured as systems of group-based social hierarchies, in which most forms of intergroup conflict can be regarded as manifestations of the basic human predisposition to form and maintain hierarchical group relations (Sidanius and Pratto, 1999, 31-38). According to this theory, group inequality is perpetuated through hierarchy-enhancing forces. The possession and expression of social dominance motives among individual actors is argued to constitute a primary force in maintaining group inequalities. Central to social dominance theory is the concept of social dominance orientation (SDO); an individual difference factor theorized to capture variation in individuals' desire and expressed support for group-based inequality and social dominance. Individuals high in SDO are argued to enhance hierarchies by supporting institutional arrangements, social norms, and formal policies, which maintain and produce ever higher levels of group-based social inequality.

From the perspective of social dominance theory, the groups that are likely to fall target to social dominance motives are those that are salient in society and define sharp power

differentials between groups. In the U.S. context, race and ethnicity have long been salient and defining features of the country's group-based social hierarchies. Aside from racial conflict between whites and blacks, immigration and ethnic conflict between native-born citizens and immigrants historically, and contemporaneously, constitutes a salient domain of political conflict. According to our perspective, cultural conflict ensues when native-born citizens encounter an unfamiliar culture from unassimilated immigrants, and this conflict deepens when formal political institutions decide on policies that stand to either perpetuate the hegemony of the cultural majority or attenuate it through accommodation of cultural minorities. It is within the context of this zero-sum game of deciding "who accommodates whom" that the ability of the cultural majority to maintain the hegemony of its own values, beliefs, and customs in the face of increasing ethnic diversity due to immigration should serve as a potent reflection of its status and dominance over foreign-born cultural minorities.

HYPOTHESES

A variety of research on intergroup relations and emotions leads to the expectation that individuals high in social dominance motives (i.e., SDO) would experience negative emotions, such as anger, in response to the imposition of cultural transaction costs. First, research on discrete emotions finds that threats posed by others can lead to anger and aggressive behaviors when the self is perceived as strong relative to the other (Frijda, Kuipers, and ter Schure, 1989; Roseman, Wiest, and Swartz, 1994). Building upon this research and extrapolating from the level of interpersonal to intergroup relations, scholars argue that the perceived or actual strength of one's group relative to an offending outgroup should dictate whether one experiences anger (Mackie, Devos, and Smith, 2000). The experience of anger in response to a threatening action from an outgroup, which is appraised as weak or inferior relative to one's ingroup, should in turn

prompt the engagement of hostile or harm-intending actions toward this outgroup. In sum, this body of research strongly suggests that threats from a subordinate outgroup will be met with anger, and the experience of anger should mediate the link between the threat and engagement in hostile behavior.

The domain of immigration and intercultural contact provides an interesting and relatively untested context in which to import the predictions from this line of research. Various aspects of intercultural contact have been argued to have threatening potential for native-born citizens (see Berry, 1997; Hitlan, Kelly, and Zarate, 2010; Anonymous, 2012; Oberg, 1960; Stephan, Ybarra, and Bachman, 1999), but perhaps none more concrete or acute as the experience of language-based threats. For example, work within cross-cultural psychology reveals that language-based barriers to effective communication, interaction, and exchange with cultural outgroups can threaten citizens' sense of their own social and cultural competence (Castro 2003; LaFromboise, Coleman, and Gerton 1993; Ward and Rana-Deuba 1999). Moreover, research on language-based social exclusion demonstrates that the experience of language barriers can augment intergroup distinctions, increase the perception of "obstacles" to the ingroup posed by an outgroup (Cottrell and Neuberg 2005), and generate anger toward the outgroup (Desteno, Dasgupta, Bartlett, and Cajdric 2004).

We argue that social dominance motives should strongly condition the degree to which encountering cultural transaction costs, in the form of linguistic barriers to completing basic tasks or social transactions, should trigger anger and threat. First, given their chronic social dominance motives and attentiveness to dominance relations, citizens high in SDO are more likely to perceive immigrants and cultural minorities as occupying an inferior or subordinate status (Snellman and Ekehammar, 2005). Given this, individuals high in SDO should be more

likely to perceive language-barriers as offensive, and thus, they should be more likely than low-SDOs to feel anger in response to these barriers. Indeed, recent research demonstrates that high-SDOs are more responsive to threats posed by immigrants (Costello and Hodson, 2011). In short, we hypothesize that encountering cultural transaction costs should produce anger among those high in SDO, which we call the **anger hypothesis**.

Extant research on emotions and intergroup relations contends that discrete emotions such as anger should mediate the link between threatening experiences and intergroup attitudes and behavior (Brader, Valentino, and Suhay, 2008; Hitlan et al., 2010; Mackie, Devos, and Smith, 2000). In particular, this work strongly suggests that experienced threats from a subordinate group should arouse anger, and that this anger should lead to the expression of hostile attitudes and the engagement in harm-intending actions toward the threatening group. In the context of opinion on immigration, the perception of threats posed by immigrants serves as a strong source of anti-immigrant sentiment, and past research finds that threatening cultural experiences—such as exposure to a foreign language—can augment the perception that immigrants pose a cultural threat (Hopkins, Tran, and Williamson, 2011; Anonymous, 2012). These findings, along with those from the intergroup emotions and language exclusion research, suggest that experienced cultural transaction costs may indirectly influence policy attitudes by arousing anger, which in turn may provoke negative attitudes and beliefs about immigrants and cultural minorities. We hypothesize that among those high in SDO, situational experiences of cultural transaction costs will arouse feelings of anger, these angry feelings will find cognitive expression in the belief that immigrants pose a threat to American culture, and this belief, in turn, will augment support for restrictive and nativist immigration policies. We label this the **mediation hypothesis**.

A graphical representation of the anger and mediation hypotheses is presented in Panel A of Figure 1. This figure charts out the expectation that going from minimum to maximum levels of SDO among those encountering transaction costs will indirectly enhance cultural threat by generating higher levels of angry feelings. Further, this figure shows that the ultimate consequence of this process is that SDO (among those encountering cultural transaction costs) will indirectly enhance support for restrictive and ethno-nativist immigration policies by arousing anger having the anger channeled into the judgment that immigrants are culturally threatening. In addition to being grounded in intergroup emotions theory, the hypothesizing of anger as causally prior to threat perception and policy attitudes is supported by research on the primacy of affect in social judgment and behavior (Zajonc, 1984) and political psychology research demonstrating that affect toward encountered social objects occurs very quickly, thus preceding and shaping judgments (i.e. cognitions) toward these objects (Lodge and Taber, 2005).

According to our theoretical framework, the emergence of cultural transactions costs is just one side of the coin of intercultural contact; the other pertains to resolving cultural differences, which inevitably leads to the issue of cultural accommodation. Moving beyond attitudes and into the domain of behavior, there is strong reason to believe that social dominance motives will play a significant role in shaping individual citizens' willingness to culturally accommodate immigrant minorities by incurring cultural transaction costs. Social dominance theorists argue that members of dominant groups, compared to those of subordinate groups, will be more likely to engage in behaviors that benefit themselves and their group. This behavioral asymmetry is known as the "asymmetrical ingroup bias" and is argued to constitute a core mechanism by which group-based social hierarchies are maintained (Sidanius and Pratto, 1999). In terms of immigration, this asymmetrical process would be characterized by the desire

for immigrants to incur the costs associated with assimilation into the dominant groups' culture and a resistance to paying the costs associated with culturally accommodating immigrant minorities. In other words, individuals high in SDO should want to push cultural transaction costs onto immigrants and avoid incurring such costs. We label this the **asymmetrical accommodation hypothesis**.

In addition to engaging in status-bolstering, asymmetrical accommodation behavior, we also hypothesize that social dominance motives should influence individuals' general degree of positive behavioral engagement with, or friendliness toward, cultural outgroup members. Existing work on intergroup behavior demonstrates that in addition to engaging in behaviors intended to actively harm a subordinate or disliked outgroup, individuals may also engage in passive-harming behaviors toward members of such groups (Cuddy, Fiske, & Glick, 2007). These behaviors can involve excluding, avoiding, ignoring, or neglecting and are intended to distance members of these groups from the self, as well as withdraw social support from them. We argue that among individuals high in social dominance motives, engagement in active dominance enhancing behaviors will coincide with minimally friendly and avoidant (rather than engaging) social interaction with cultural immigrant minorities. We label this the **disengagement hypothesis**.

Beyond the issues of initial emotional, attitudinal, and behavioral responses to cultural transaction costs, we view the emotional repercussions of one's own behavior toward cultural outgroups in these situations as an important area of substantive interest. We have argued that social dominance motives will lead to anger in response to encountering cultural barriers to the completion of basic tasks or interactions, as well as asymmetrical cultural accommodation behavior and social disengagement in response to contact with cultural outgroups. If

encountering cultural barriers when interacting with a member of an outgroup leads to negative emotions, then acting out such emotions through status-bolstering and asymmetrical behaviors should reduce emotional arousal and the experience of negative emotions. Indeed, extant research demonstrates that the maintenance of social dominance over immigrants strongly appeals to those high SDO (Pratto and Lemieux, 2001). Given this, we hypothesize that among those high in SDO engaging in asymmetrical cultural accommodation behaviors will have a “venting” effect, in which negative emotions (e.g., anger) will be reduced as a byproduct of asserting one’s dominance over a subordinate cultural group and their members. We label this the **venting hypothesis**.

OVERVIEW OF EXPERIMENTAL AND OBSERVATIONAL STUDIES

Two separate studies were designed to test our hypotheses concerning the moderating role of SDO on individuals’ emotional, attitudinal, and behavioral reactions to encountering cultural transaction costs. In Study 1, we conducted an experiment where participants were unexpectedly exposed to a Spanish website during the course of completing a basic Internet navigation task. Following this experimental treatment, participants were given a questionnaire measuring emotions, perceived threats related to immigration, and policy attitudes. In Study 2 (observational study), recruited individuals participated in an Internet chat-room, in which they interacted with a chat discussant who conversed in English and Spanish. These study participants were given the opportunity to incur or push cultural transaction costs onto their chat discussant. In essence, these two studies enable us to assess the effect of individual differences in social dominance motives on reactions to key experiences and situations ranging across the trajectory of the intercultural contact process, beginning with the simple exposure to an

unfamiliar culture (Study 1) and ending with a situation requiring the allocation of cultural transaction costs (Study 2).

STUDY 1

In our first study, we confront participants with a cultural transaction cost in the form of an unexpected exposure to a Spanish language website during the course of performing a very basic Internet website navigation task. We aimed to have this manipulation imitate the type of impersonal and incidental exposures to unfamiliar culture that discomfit basic everyday tasks or interactions, such as placing a fast food order, reading a sign, or navigating an automated telephone customer service system. Existing research demonstrates that a large portion of Americans' contact with immigrants is likely to be characterized by sporadic, informal, and brief encounters within specific contexts (e.g., local supermarkets, retail stores, etc.) rather than prolonged and intimate settings (Hopkins, 2010). Further, recent research finds that impersonal and incidental exposure to Spanish language can operate as a powerful implicit cue by activating feelings of threat and opposition to immigration (Hopkins, Tran, and Williamson, 2010; Anonymous, 2012).

Experimental Design and Procedure

One hundred and eleven undergraduate students enrolled in political science courses at a large Northeastern university were recruited to participate in this study. Of the 111 students who participated, there were slightly more males (58%) than females, 64% identified themselves as Caucasian, and ideology and party identification were nearly evenly distributed across the student sample, with a slight skew in favor of liberal and democratic identifiers.¹ Although we make no

¹The key form of cultural transaction costs induced in our studies concerned moving from English to a foreign language. As such, we were forced to exclude Asian subjects from the analyses in Studies 1 and 2 because the vast majority of these subjects—relative to all other racial groups—were exchange students visiting the U.S. More

claims about the representativeness of our sample relative to the general public, we suspect that any findings from our data are conservative estimates given that college students tend to be more open to experience and have less crystallized social and political attitudes than the general adult population (Sears, 1986).

Upon entering the lab, subjects were informed that they were participating in a consumer research study investigating people's attitudes toward government websites. Participants were instructed that they would be assessing the New York State Department of Motor Vehicles (NYSDMV) website, and that they were going to be given three navigation tasks to familiarize themselves with that website to evaluate its "user-friendliness." The NYSDMV website was chosen because at the time of the study (Fall 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 "how new drivers obtain a driver's license in New York State." After completing the first navigation task, participants closed the DMV 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 and third navigation task which was also followed by questions.

The sole experimental treatment of the study involved varying what occurred during the third navigation task: Participants in the control condition simply searched for specific information on the English language DMV website as they had done in the previous two tasks. However, participants in the treatment condition were "accidentally" directed to the Spanish language version of the New York State DMV website to perform a search for information about "how one might obtain custom and personalized license plates." We refer to this manipulation as

importantly, over three-quarters of these students were recent English language learners with high rates of non-response to survey questions in both studies and to chat discussion questions in Study 2.

the “Web Spanish” treatment. For participants with little to no Spanish language ability, encountering this website truly represented an insurmountable barrier because there was no simple button to click to translate the page back into English. Interestingly, the vast majority of study participants exited the Spanish-language page within 10 seconds or less; hence, our Web Spanish treatment was clearly incidental.

Immediately after completing the navigation tasks, all participants answered a series of self-reported emotion questions, followed by filler questions (designed to support the cover story that the experiment concerned evaluation of a public website), and measures of social dominance orientation,² perceived threat, and policy items related to immigration. An open-ended experimental check indicated that less than 2% of the sample explicitly thought the study was about immigration, minorities, or culture. Further, no participants believed that the purpose of the experiment was to manipulate language exposure or use it as a barrier toward performing the navigation task. Last, 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 or culture.

Measures

To assess the role that social dominance motives play in shaping the effect of our experimental treatment on emotions and immigration-related attitudes, we used 8 items from the original 16-item social dominance orientation scale (Pratto, Sidanius, Stallworth, and Malle, 1994). These eight items were combined into a single summative scale ($\alpha=.85$) and recoded to

² One could argue that our measure of SDO might be reactive to the experimental treatment, given that it was measured after exposure to the “Web Spanish” manipulation. A simple bivariate regression, however, revealed that levels of SDO among the study participants was not significantly influenced by exposure to the treatment ($B=.010$, $SE=.010$, $p=.31$).

range from 0 to 1, for ease of interpretation (1=high SDO; $M=.34$, $SD=.22$). For more information about the items used and question wording, see Appendix A.

To gauge the impact of our treatment on participants' experienced type and level of emotional arousal, participants answered 5 anger items adapted from the Positive and Negative Affect Schedule (PANAS; Watson, Clark, and Tellegan, 1988). More specifically, subjects reported the extent to which they felt "angry," "upset," "irritable," "annoyed," and "frustrated." Response options for each of these five self-reported emotion questions ranged from "very slightly" to "not at all." These five anger items were combined into a single summative scale that was recoded to range from 0 to 1 (1=high anger; $M=.24$, $SD=.25$) and yielded an inter-item reliability of $\alpha=.90$. To measure the perception of cultural threat posed by immigrants, we included a 6-category item derived from Sniderman, Hagendoorn, and Prior (2004). Respondents indicated their agreement with the following statement: "These days, I am afraid the American culture is threatened by immigration" (6="strongly agree").

We measured subjects' immigration policy preferences with two items. First, we asked subjects to indicate on a 5-point scale how important it was for the "U.S. government to work to return all illegal immigrants back to their home countries" (Deport Illegals; 5="extremely important"). On the surface this item addresses preferences over how restrictive or punitive our national position toward illegal immigrants should be; however, this item can also be viewed as the extent to which individuals want to cut cultural transaction costs by reducing the immigrant population. Second, we included an item that asked participants to report how likely they would be to support "a state or local law declaring English as the Official Language?" This item, labeled Official English, had 6 response options, ranging from "extremely unlikely" to

“extremely likely.”³This item, within the context of language, should tap preferences regarding the macro-level distribution of cultural transaction costs by essentially shaping “who culturally accommodates whom.”

All of our models included controls for gender (1=male), birthplace 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”), a standard 7-point measure of political ideology (1=very conservative), and the strength of subjects’ national identity (1=strong American identity) derived from the 4-item scale used by Sniderman et al. (2004). Race was controlled for with a dummy variable coded “1” for Caucasian subjects and “0” for non-white, minority subjects. Information about the correlations between key variables is provided in Appendix B.

Results

To test our hypotheses, we estimated a mediated-moderated effects (Baron and Kenny, 1986; Muller, Judd, & Yzerbyt, 2005) structural equation model (SEM). For our anger hypothesis, we interacted SDO with a treatment dummy variable; this interaction contrasts the effect of moving from minimum to the maximum levels of SDO among those in the treatment compared to those in the control condition. Our SEM simultaneously estimated four regressions: (1) anger on the SDO-by-treatment interaction and control variables, (2) cultural threat on the SDO-by-treatment interaction, anger, and controls, (3) Deport Illegals policy item on the SDO-by-treatment interaction, anger, cultural threat, and controls, and (4) Official English policy item on the SDO-by-treatment interaction, anger, cultural threat, and controls. This model allows us to

³The response categories for the “Deport Illegals” (“not at all important” “slightly important” “moderately important” “quite important” and “extremely important”) and “Official English” (“extremely unlikely” “pretty unlikely” “somewhat unlikely” “somewhat likely” “pretty likely” and “extremely likely”) 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).

estimate a series of mediated or indirect pathways by which SDO, conditional upon the treatment condition, may influence immigration policy preferences. Due to the ordinal nature of our cultural threat item and policy dependent variables, we used ordered probit link functions for these equations within our SEM and estimated the parameters using mean and variance adjusted weighted least squares in Mplus (Muthén and Muthén 2007).

The full results from our SEM are displayed in Table 1 and the core results are displayed graphically in Panel B of Figure 1. The first column contains our findings for the anger model. As hypothesized, among those receiving the experimental treatment, higher levels of SDO is associated with a significant increase in feelings of anger ($B=.34$, $SE=.17$). A coefficient of .34 indicates a sizeable effect of an increase in SDO on anger. To be sure, among participants who received the treatment, the predicted value on the anger scale for those low in SDO is .22, whereas for those highest in SDO the predicted value of anger increases to .56. We also find a statistically significant and negative coefficient on the interaction term ($B=-.47$, $SE=.23$), which tells us that the marginal effect of moving from the minimum to the maximum value of SDO on anger is significantly reduced in the control condition.

Moving on to the mediation hypothesis, we turn to the second column in Table 1, which displays the effects of SDO, the experimental condition, the interaction of SDO and condition, and anger, on cultural threat. The bottom rows of the table report the indirect effect of SDO among those in the treatment condition on cultural threat via its effect on self-reported anger. The results reveal that SDO does not directly affect perceived cultural threat among those in the treatment condition ($B=.47$, $SE=.72$), and there is no significant interaction between SDO and experimental condition ($B=.34$, $SE=.98$). However, experiencing anger does significantly affect perceived cultural threat ($B=.92$, $SE=.42$), with increasing anger associated with heightened

perception that immigrants threaten American culture. Although we find that SDO failed to exert a direct effect on cultural threat, it did exert a significant indirect effect on cultural threat perceptions by its impact on anger ($B=.31$, $SE=.21$).⁴

The final pathway to be tested is whether SDO and the Web Spanish treatment, by arousing anger and thus enhancing the perception cultural threat, indirectly increased support for restrictive and ethno-nativist immigration policies. The third and fourth columns in Table 1 list the direct effects of these factors on policy attitudes, as well as the indirect effects of SDO (among those in the treatment condition) on immigration policy preferences. First, the results reveal that a higher levels of SDO among those in the treatment condition is associated with an increase in the probability of supporting a government policy to deport illegal immigrants and institute an Official English Language law, though only in the former case did this effect attain conventional levels of statistical significance. Further, there are no significant interactions between SDO and experimental condition in either policy model, and we see that anger has no significant direct effect on either of these policy attitudes. Second, the results reveal that an increase in cultural threat significantly increases the probability of supporting both of these anti-immigrant policies (“Deporting Illegals”: $B=.34$, $SE=.10$; “Official English”: $B=.32$, $SE=.11$). And last, we find that SDO (among those in the treatment condition) indirectly enhanced support for these two policies by arousing anger, which in turn, was associated with higher levels of perceived cultural threat. To be sure, the path coefficients listed in these columns test a complex pathway of influence: SDO and Treatment → Anger → Cultural Threat → Policy Attitude⁵. To

⁴ One potentially problematic feature of our experimental manipulation is that the expression of anger among those high in SDO is attributable to having their web browser not working as intended rather than encountering language-based barriers. This concern, however, is ameliorated by the statistically significant and substantively large link between the anger caused by the treatment and reported levels of cultural threat.

⁵ One possible alternative model to the causal process we stipulate is one in which cultural threat perceptions precede feelings of anger. In other words, SDO and receipt of the treatment first arouses perceptions of cultural

assess the robustness of these results given our modest sample size, we re-ran our SEM using bootstrapped standard errors and confidence intervals for all parameter estimates, and the sign and significance of our estimates remain intact.

Discussion

We theorized that encountering cultural transaction costs should be experienced by high SDOs as a dominance-threatening and status-infringing obstacle posed by a subordinate cultural outgroup. Our analyses demonstrate that encountered language-based barriers to the completion of basic tasks among high-SDOs activates anger, which in turn augments the perception that immigrants pose a threat to American culture, and culminates in increased support for restrictive and ethno-nativist immigration policies. These findings contribute to the immigration opinion literature in two respects. First, they add to existing research exploring the sources of public opposition to immigration by showing that a specific type of intercultural contact, when paired with social dominance motives, can increase anti-immigrant policy support through the generation of negative emotions and cultural threat perceptions. This stands out from existing work not only by the complexity of the analyzed causal process underlying policy attitudes, but in the exploration of the interplay between personality and situational factors in shaping opinion. Second, the findings from this study advance our understanding of the causes of cultural threat by demonstrating that threat perceptions can be generated by combining individual social dominance motives with anger-inducing real intercultural contact experiences.

threat, which then lead to feelings of anger and ultimately support for restrictive immigration policy. To rule out this alternative explanation, we estimated the following SEM: SDO and Treatment → Cultural Threat → Anger → Policy Attitude. The results from this SEM do not fit the data well, as the path from SDO (conditional upon receipt of the treatment) to anger via cultural threat is not statistically significant, nor is the path from SDO (again, conditional upon the treatment) to policy preferences via cultural threat then anger. We do not find this null result surprising, as the literature we draw upon to derive our hypotheses suggests that emotions should precede perceptions of threat in response to outgroups. That is, emotions are a mechanism through which an outgroup's offending behavior is translated into negative cognitions and harm-intending behaviors toward that outgroup.

STUDY 2

Although Study 1 provided an opportunity to observe how individuals react to cultural transaction costs, it was not designed to observe individual preferences over how these costs should be distributed to overcome cultural barriers. As a result, we designed Study 2 to test the asymmetrical accommodation, disengagement, and venting hypotheses by placing study participants in an intergroup contact situation involving cultural transaction costs and providing them with the opportunity to personally accept or push these costs onto an outgroup member.

Study Design and Procedure

Seventy one undergraduate students enrolled in political science courses at a large Northeastern university were recruited to participate in this observational study. Of the 71 students who participated, there were slightly more females (55%) than males, 52% of subjects identified themselves as Caucasian, and ideology and party identification are nearly evenly distributed across the student sample, with a slight skew in favor of liberal and democratic identifiers. As in Study 1, subjects were informed that they were participating in a consumer research study investigating people's attitudes toward commercial or government websites. The first section of Study 2 was the same as in Study 1, only this time the website was the Department of Housing and Urban Development (HUD). The main difference between Study 1 and 2 is that the Internet navigation portion of Study 2 contained no experimental manipulation. Rather, after completing the 3 brief navigation tasks of the HUD website, which were entirely in English and involved no unexpected exposure to a Spanish language version of the HUD website, all subjects were then asked to participate in an online focus group discussion using a chat room environment.

To reinforce our cover story, 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. In addition, subjects were told 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. For all study participants, 4 of the 6 questions asked by the “discussant” contained substantial portions of the question in Spanish. For example, the first posted statement by the computerized chat discussant was: “just finished looking at some sites. qué website tuviste que buscar?” The second and fifth statements were entirely in English, while the third, fourth, and sixth statements were written half in Spanish in a fashion similar to the first example.

The injection of Spanish into the chat was intended not only to simulate the type of brief, real-life encounters that Americans may have with immigrants who possess limited English-language abilities, but it also served to construct an interactive social situation involving cultural transaction costs. For participants with little knowledge of Spanish, encountering these statements in a foreign language created a barrier to transacting—that is, responding to the discussant’s questions and communicating more generally. The main innovation of Study 2 is that every participant, in addition to being able to freely enter a text reply to the discussant’s question, was also provided with two “screen options” designed to capture a basic difference in cultural accommodation behavior and preferences regarding the distribution of cultural

transaction costs. Two buttons, labeled “Retrieve Translator” and “Request Translation,” were available throughout the entire chat discussion. Clicking on the former button opened up a new browser connecting subjects to an online Spanish-to-English translation website. Clicking on the latter button caused a message in the chat discussion text box to pop up stating, “Please hold on, request for translation is being sent.” The chat program was designed to be as realistic as possible; after waiting a little over a minute, the same question asked in partial Spanish by the chat discussant re-appeared in full (though imperfect) English. Further, these options were not mutually exclusive; clicking on one at each “response round” of the 6 questions did not eliminate the option of selecting the other.

This feature of Study 2 enabled us to use each subject’s behavior during the chat to generate a novel set of dependent variables. The “Retrieve Translator” and “Request Translation” buttons were made available to observe participants’ willingness to resolve the cultural transaction barriers by incurring the costs in time and effort associated with translating Spanish to English, or pushing these costs onto the chat discussant by requesting they translate their statement into English. We view the choice over these two options as a behavioral indicator of subjects’ willingness to culturally accommodate outgroups by incurring transaction costs. Conversely, the act of pushing the costs onto an outgroup member, as indicated by selection of the “Request Translation” option, is viewed as an active effort by individuals to avoid cost incurrence and be accommodated by a member of a cultural outgroup.

Measures

Four initial dependent variables were derived from subjects’ behavior during the chat discussion. First, we constructed dichotomous push and incur variables. The push variable was coded “1” if a subject selected the “Request Translation” button at least once during the course

of the chat and “0” otherwise; the incur variable was similarly coded “1” if the subject selected the “Retrieve Translator” button at least once during the course of the chat. In total, roughly 49% of participants pushed at least once during the course of the chat, and 51% of subjects incurred transaction costs at least one time. The dichotomous push and incur variables were moderately negatively correlated (-.55) with one another. Second, we created variables counting the number of times each behavioral option was selected, rendering pushcount and incurcount variables, each ranging from 0 to 4 (because subjects only received 4 questions in partial Spanish and no subjects clicked either button more than 4 times). Each of these count variables had a slight polar bimodal distribution, revealing a tendency among participants to either fully engage or abstain from engaging in one of these two behaviors in response to each instance of encountering the Spanish-language barrier.

In addition to observing individual cultural accommodation behavior toward the chat discussant, we also recorded all typed responses from each subject to the chat discussant, which we used to calculate word counts. The number of words, and thus the degree of “talkativeness” of each subject to the chat discussant, was used as an indicator of social engagement versus withdrawal from the interaction with the discussant.⁶ We first constructed a variable measuring the total number of words used by each subject across their 6 responses to the chat discussants’ questions. Next, to control for the fact that some questions asked by the computerized discussant solicited short responses, we created an average of the words used by each subject across their 6 responses. These two variables served as the dependent variables for our test of the disengagement hypothesis. To test the venting hypothesis, all participants answered 4 questions tapping anger; as in Study 1, we asked subjects the extent to which they were presently feeling

⁶ While passive harm and friendliness are typically gauged with measures of eye contact, smiling, spatial distance, and body language (Cuddy et al., 2007; Fazio, Jackson, Dunton, and Williams, 1995), such measures are unavailable to us given the interaction in cyber space rather than in person.

“upset,” “hostile,” “irritable,” and “distressed.” These four items were combined into a single summative scale ($\alpha=.77$) and recoded to range from 0 to 1 (1=high anger; $M=.16$, $SD=.19$).

To assess the role of individual social dominance motives in shaping accommodation behavior, disengagement, and the experience of negative emotions, we relied upon the same 8-item measure of SDO utilized in Study 1. These items were combined into a single scale ranging from 0 to 1 (1=high SDO; $M=.38$, $SD=.19$), yielding an inter-item reliability of $\alpha=.81$. We also interacted SDO with a dichotomous item asking subjects whether English is their primary language spoken at home. The purpose of this interaction was to provide a strong mechanism for ensuring that the Spanish-language manipulation encountered during the chat truly constituted an unknown language, and thus an obstacle to communication. Therefore, while the asymmetrical accommodation hypothesis predicts that individuals higher in SDO will be more likely to push costs onto outgroup members, this prediction only holds when these individuals are truly being confronted with an unfamiliar language (i.e., cultural transaction costs).⁷

We used the same set of control variables from Study 1, with the addition of two variables not included in the first study that may be of theoretical importance. First, we include an 11-item measure of openness to experience to control for individual differences in the propensity to seek out novelty and new stimuli, such as a foreign culture. These items were combined into a single scale that was recoded to range from 0 to 1 ($\alpha=.73$; 1=high openness). Second, intergroup contact theory (Allport 1954; Brown, 1995) suggests that having recurrent exposure to a foreign language within the context of one’s friendship network should reduce the experience of 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%).

⁷ When re-running all models in Study 2 on participants that spoke only English, all of the main results hold.

Results

To test the asymmetrical accommodation hypothesis, we analyzed the dichotomous push and incur variables, as well as the push and incur count variables, using logistic and ordered logistic regression.⁸ As hypothesized, among participants who primarily speak English, higher levels of social dominance motives was associated with a significant increase in the probability of pushing cultural transaction costs onto the Spanish-speaking (computerized) chat discussant ($B=4.12$, $SE=1.81$; see Table 2). Indeed, not only were high-SDOs more likely to push at least once, they were more likely to push often: higher levels of SDO was associated with a significant increase in the probability of pushing costs to each of the 4 questions asked in partial Spanish ($B=3.35$, $SE=1.56$). Moreover, high-SDOs who only speak English were significantly less likely to culturally accommodate their chat discussant by retrieving the Spanish-to-English translator (Incur Dummy: $B= -5.49$, $SE=1.98$; Incur Count: $B= -4.14$, $SE=1.60$). To further explicate these results, we plotted predicted probabilities in Figure 2.

Our intuition behind the interaction of SDO with language usage is confirmed by the four significant interaction terms. While SDO is associated with asymmetrical accommodation behavior among those speaking primarily English, this relationship is significantly attenuated among those high in SDO who speak a language other than English. Although possessing the ability to speak a language other than English does not mean that these participants could speak Spanish, it does likely impart familiarity with and tolerance for foreign language exposure. Of the controls in these models, the only other variable that exerted some influence over cultural accommodation behavior was openness to experience. The results reveal that moving from the

⁸ To address the loss of large sample properties associated with Maximum Likelihood Estimation with samples smaller than $N=200$, and thus any potential bias in our estimates, we re-ran these regressions using Weighted Least Squares (WLS). WLS applied to regression with dichotomous and ordinal dependent variables provide consistent coefficient estimates and correct standard errors. In each of the four models, the sign and significance of the coefficients for SDO and the interaction term remained unchanged.

minimum to the maximum level of openness is associated with a marginally significant decrease in the probability of pushing cultural transaction costs and a significant increase in the probability of incurring such costs upon each encounter of Spanish-language-usage by the chat discussant.

Moving on, we tested the disengagement hypothesis using a negative binomial regression of total and average words used by participants during the chat discussion.⁹ Across both of these models, we found that higher levels of social dominance motives among English-speaking participants is associated with a significant decrease in verbal engagement with the chat discussant, as indicated by the total words spoken ($B = -.77, SE = .46$) and the average words spoken ($B = -.75, SE = .45$). Our analyses also uncovered marginally significant interaction terms (total words: $B = 1.40, SE = 1.0$; average words: $B = 1.3, SE = 1.0$), revealing that the propensity of high SDOs to disengage with an outgroup member is significantly attenuated as we move from participants who primarily speak English to those who speak languages other than English. These findings provide support for our disengagement hypothesis, and reveal that the link between SDO and withdrawal from social interaction with a cultural outgroup member was conditional upon participants' monolingualism and language-based barriers to social interaction.¹⁰

Up until now, we have demonstrated that participants high in SDO became angrier in response to encountering cultural transaction costs and pushed these costs onto outgroup members when given the opportunity. A remaining question, then, is whether engaging in this type of culturally non-accommodative behavior, and thus presumably expressing social

⁹ Again, to address the loss of large sample properties, we re-ran these regressions using Weighted Least Squares (WLS), and the sign and significance of the coefficients for SDO and the interaction terms remained unchanged.

¹⁰ While our results provide support for the disengagement hypothesis, we should note that an alternative account for our findings that is supported by the personality literature is that individuals high in SDO are generally less agreeable and friendly (Akrami and Ekehammar, 2006).

dominance by being accommodated by the chat discussant, served to reduce the negative emotions high-SDOs feel in response to experiencing cultural barriers. The results presented in Table 3, in support of the venting hypothesis, suggest that this is indeed the case. Four OLS regressions tested the interactive effect of SDO and chat behavior on anger. Note that for these analyses, we centered the SDO scale on high-SDOs (i.e., it is reversed coded) so that the coefficient for each type of chat behavior could be interpreted for those highest in SDO (for a detailed explanation, see Jaccard & Turrissi, 2003). The regression coefficients listed in Panel I reveal that, among participants highest in SDO, pushing cultural transaction costs at least once during the chat is associated with a significant decrease in the experience of anger-oriented negative emotions. More specifically, the negatively signed coefficient for SDO reveals that, among participants who did not push costs at all during the chat, those low in SDO felt significantly less angry than those high in SDO. Moreover, the interaction term tells us that the marginal effect of pushing at least once during the chat significantly differs based upon levels of SDO; the interaction coefficient indicates that as the level of SDO among participants moves from its highest to lowest values, pushing costs onto the chat discussant was associated with higher levels of negative emotions. This pattern held when analyzing the effect of the frequency of push behavior, though these results failed to obtain statistical significance.

Moving on to the effects of cost-incurring behavior (see Panels III and IV, Table 3), we see that individuals high in SDO that culturally accommodate the Spanish-speaking chat discussant experienced significantly higher levels of anger. This effect was only statistically significant, however, when analyzing the frequency of accommodation behavior (Panel IV). This caveat aside, these results suggest that high-SDO participants that acted against their tendency to push and instead incurred costs, perhaps out of social desirability or politeness concerns,

nonetheless felt more angry after doing so. The marginally significant interaction term in Panel IV indicates that the anger bolstering effect of incurring among those high in SDO is attenuated as we move to those lower in SDO.

Discussion

The general picture painted by this last set of analyses on emotions is one in which high-SDOs are seemingly able to vent their anger in response to cultural transaction costs by engaging in asymmetrical accommodation behavior toward cultural outgroups, whereby the cultural accommodation of outgroups is avoided and cultural accommodation from outgroups is asserted. Among those who did not seize upon the opportunity to push costs onto the chat discussant, those high in SDO were significantly more angry than those low in SDO. We believe that engaging in this type of asymmetrical behavior serves as a strong expression and bolstering of social dominance. The results demonstrate that among participants lacking such dominance motives, engaging in non-accommodative behavior arouses, rather than assuages, negative emotions—suggesting an absence of the same emotional and symbolic functions and utility for this behavior that exist for those high in SDO. Last, the results reveal an interesting caveat: In the case of pushing costs, venting among those high in SDO appears to be a function of simply engaging in the behavior rather than how many times the behavior is performed. For cost-incurring behavior, the reverse is found: Incurring once did not seem to lead high SDO individuals to become significantly angrier; however, repeatedly incurring costs, likely against their desire to push, led these high-SDOs to experience significantly greater levels of anger.

GENERAL DISCUSSION

In this article, we have argued that one important aspect of the cultural politics of immigration centers upon native-born citizens' attempts to manage the emergence and

incurrence of cultural transaction costs. The issue of distributing these cultural transaction costs across native-born citizens and immigrant groups activates both tangible and symbolic concerns. The tangible concerns activated by the distribution of cultural transaction costs pertain to practical considerations of who will incur the costs required to reconcile cultural differences to enable effective intergroup interactions and exchange. The symbolic concerns reflect competition for group status, as well as the expression of social dominance by cultural majority group members. Political conflict over language policy, bilingual education, and multiculturalism in general, according to our perspective, is intimately linked to the fact that these policies address the real distribution of cultural transaction costs. By determining who has to assimilate to whom and by how much, these policies also stand as potent symbols of group status and social dominance.

The findings from our studies demonstrate the relevance of social dominance motives to the cultural politics of immigration in several important respects. First, we demonstrate in Study 1 that variation in social dominance motives has a significant relationship to how individuals emotionally react to an unfamiliar culture as a barrier to completing basic day-to-day tasks (i.e., cultural transaction costs). Through this relationship, Study 1 ultimately charts a causal sequence that connects social dominance motives and real intercultural experiences to preferences over macro-level government policies intended to shape the amount and distribution of cultural transaction costs. Second, paralleling the linkage between SDO and preferences over “who accommodates who” at the policy level, Study 2 demonstrates that at the interpersonal level, social dominance motives exert a significant effect on engagement in culturally accommodative behavior toward a cultural minority group member. And last, these two results are linked by the finding that avoiding the cultural accommodation of an outgroup member and

procuring accommodation from them (i.e., asymmetrical cultural accommodation) results in a significant reduction of negative emotions for those high in SDO.

In addition to supporting our theory of the cultural politics of immigration, the findings from our studies make an important contribution to the opinion research on immigration. More specifically, we demonstrate how individual difference factors and environmental experiences may interact to produce threat perceptions of known relevance to immigration policy preferences. Rather than simply utilizing cultural threat as a predictor of immigration policy preferences while leaving the former's origins as unknown, we present theory and findings that depict cultural threat perceptions as a negative cognitive appraisal resulting from anger triggered by personality and experiential factors. Beyond these contributions to the immigration literature, the results from our studies contribute to the work on social dominance theory by extending it further into the study of opinion on immigration than previous SDO research. In addition to linking SDO to immigration attitudes, we translate the asymmetrical in-group bias prediction into the asymmetrical accommodation hypothesis and demonstrate that SDO has important impacts on substantively important behavior toward cultural minority group members.

While the studies in this article relied upon exposure to Spanish as the key induction of cultural transaction costs, we view our theory as trans-contextual in that we would expect our results to hold for any cultural outgroup. This said, the evidence presented in our studies relies upon Spanish and thus alludes to Hispanic immigrants only; therefore, our ability to conclude that the dynamics observed in our studies would generalize to all immigrant minorities is limited by our data. As is the case in many other nations, immigration in the U.S. is highly racialized, as Hispanics are the largest and fastest growing (Passel, Cohn, and Lopez 2011), as well as the most salient and stigmatized (Brader, Valentino, and Suhay 2008; Chavez 2008; Chomsky 2007;

Domke, McCoy, and Torres 1999), of the immigrant groups currently entering and residing in the country. Given the racialization of immigration, as well as variation in the social status of different immigrant groups, it is possible, and of interest for future research, to assess whether the results observed in our studies would hold for a wider range of immigrant groups. Our theory suggests that our results should hold for any immigrant group whose cultural distance from the native culture is sufficient to induce cultural transaction costs; however, future research is needed to empirically test whether the effects of transaction costs on the attitudes and behaviors observed in our studies would hold when reassessed among less stigmatized and/or higher status immigrant groups. Future research could build upon our work by employing an experimental design that manipulates the cultural distance, ethnic identity, and social status (e.g. education, occupational skills, etc.) of the immigrant groups encountered by study participants, thus enabling researchers to determine whether the effects observed in our study are driven solely by the cultural distance of an immigrant group, or whether racial or ethnic identity is indeed an operative factor as well.

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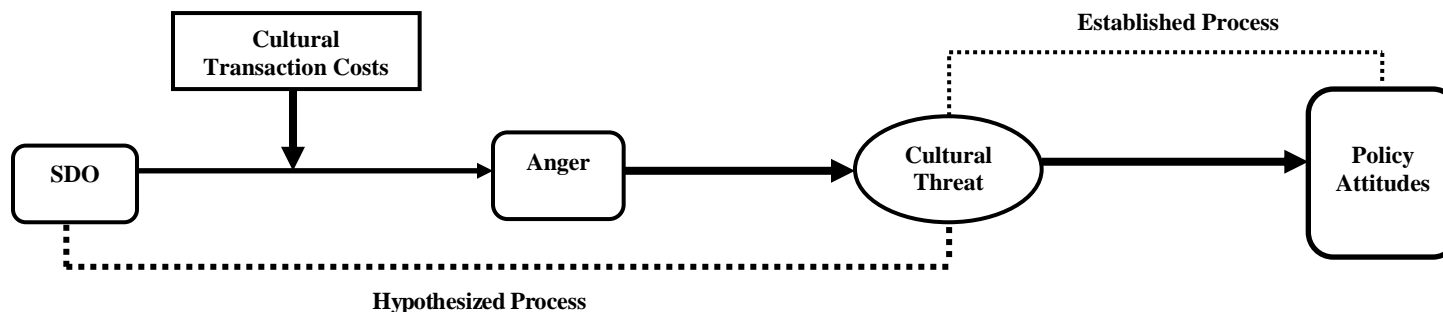
Table 1. The Mediated Effect of SDO & Web Spanish Treatment On Policy Preferences

	<u>Anger Scale</u>	<u>Cultural Threat</u>	<u>Deport Illegals</u>	<u>Official English</u>
Social Dominance Orientation (SDO)	.340* (.171)	.471 (.724)	2.11* (.847)	1.36 (.902)
Treatment dummy (0=Treatment)	.095 (.093)	.131 (.455)	.555 (.388)	.309 (.386)
SDO x Treatment Dummy	-.474* (.229)	.338 (.986)	-1.23 (1.04)	-1.64 (1.03)
Anger Scale	---	.920* (.426)	-.583 (.457)	-.106 (.452)
Cultural Threat	---	---	.343*** (.106)	.320** (.116)
Gender	-.036 (.053)	.050 (.253)	-.028 (.228)	-.346 (.253)
White	-.228*** (.059)	.025 (.334)	.121 (.319)	-.104 (.281)
Spanish Language Ability	-.023 (.088)	-.507 (.369)	-.075 (.414)	-.566 (.391)
Foreign Born Parents	-.044 (.058)	-.896*** (.271)	.328 (.269)	-.146 (.289)
Ideology	.269*** (.078)	.973 (.736)	-.477 (.434)	.088 (.342)
National Identity	-.152† (.078)	.908* (.476)	1.09* (.461)	1.36*** (.442)
<u>INDIRECT EFFECT:</u>				
Social Dominance Orientation				
Estimate	---	.313†	.107†	.100†
(S.E.)		(.215)	(.078)	(.074)

Notes: N = 111. Because Mplus treats categorical dependent variables as latent variables, the coefficient estimates for the Cultural Threat, Deport Illegals, and Official Language equations 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 the Anger Scale equation, entries are unstandardized regression coefficients. The estimated indirect effect of SDO is the effect of going from the minimum to maximum value of SDO among those in the treatment condition. Reported p-values for test of indirect effects are based upon one-tailed hypothesis tests. All other significance levels are based on two-tailed hypothesis tests, †p<.10, *p<.05, **p<.01, ***p<.001

Figure 1: Path Diagram of Anger and Mediation Hypotheses

Panel A. Theoretical Model



Panel B. Results from Structural Equation Model

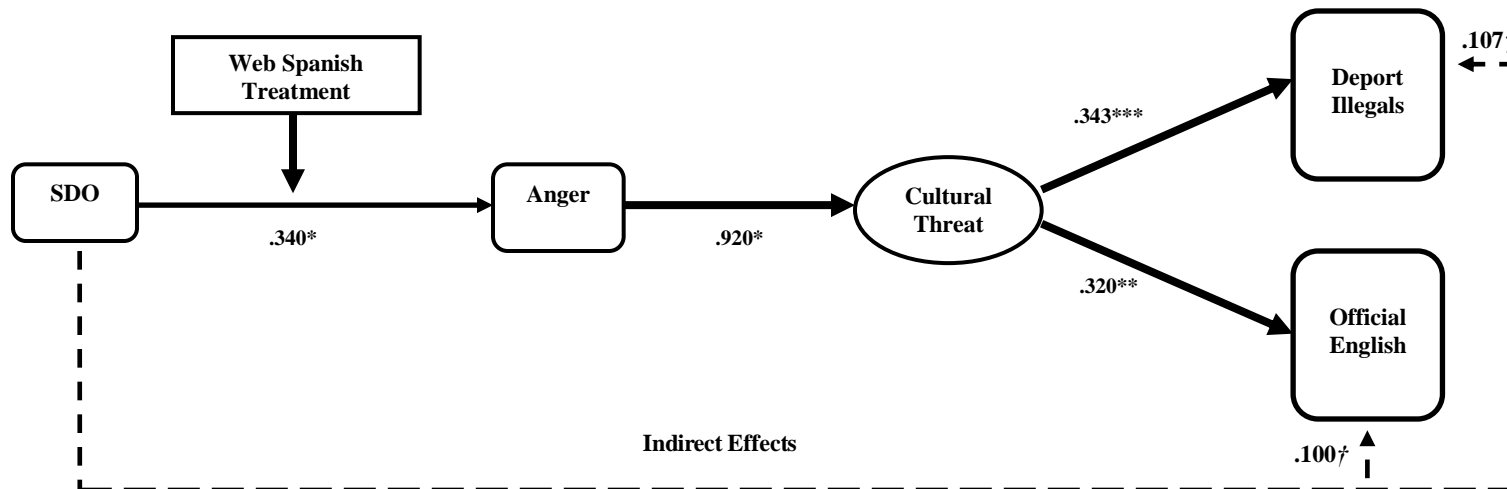
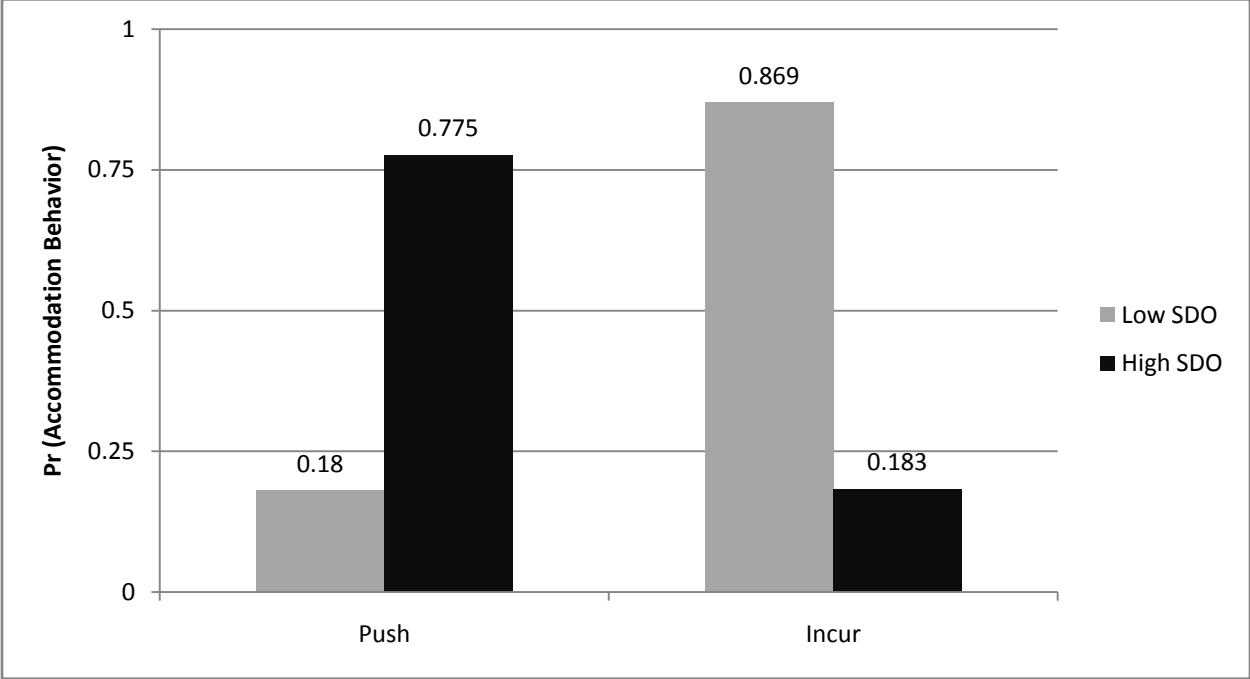


Figure 2. Predicted Probability of Cultural Accommodation Behavior among English-Speaking Subjects



Notes: Predicted probabilities were calculated from logistic regression models presented in Table 2.

Table 2. The Effect of Social Dominance on Cultural Accommodation Behavior

	<u>Push Dummy</u>	<u>Push Count</u>	<u>Incur Dummy</u>	<u>Incur Count</u>
Social Dominance Orientation (SDO)	4.12* (1.81)	3.35* (1.56)	-5.49** (1.98)	-4.14** (1.60)
Language Dummy (0=English Main Language)	4.75** (1.72)	3.40* (1.42)	-5.06** (1.82)	-4.94** (1.71)
SDO x Language Dummy	-10.98** (4.04)	-8.17* (3.50)	11.43** (4.13)	13.91** (4.16)
Gender	-.855 (.629)	-.760 (.556)	.549 (.658)	.482 (.555)
White	.340 (.684)	4.24 (.593)	.409 (.726)	.278 (.634)
Foreign Born Parents	.567 (.707)	.588 (.645)	-1.04 (.751)	-1.12† (.660)
Ideology	-1.61 (1.45)	-1.60 (1.22)	.151 (1.46)	1.02 (1.29)
Party ID	.828 (1.22)	1.01 (1.07)	-.080 (1.24)	-.302 (1.10)
National Identity	1.26 (1.38)	.617 (1.20)	1.09 (1.44)	.251 (1.24)
Open to Experience	-2.64† (1.50)	-2.18† (1.25)	1.45 (1.49)	2.91* (1.39)
Contact with ESL Speakers	-.930 (.985)	-.423 (.859)	2.30* (1.09)	1.19 (.818)

Notes: N = 71. Entries are unstandardized regression coefficients from logistic regressions (Push Dummy and Incur Dummy) and ordered logistic regressions (Push Count and Incur Count). Reported significance levels are based on two-tailed hypothesis tests, †p<.10, *p<.05, **p<.01, ***p<.001.

Table 3. Moderated Effect of Chat Behavior by SDO On Negative Emotions

	β	(SE)
A.		
Push	-.307*	(.141)
SDO (reversed)	-.532**	(.168)
Push x SDO	.463*	(.229)
B.		
Push Count	-.240	(.180)
SDO (reversed)	-.439*	(.165)
Push Count x SDO	.382	(.296)
C.		
Incur	.118	(.147)
SDO (reversed)	-.293	(.183)
Incur x SDO	-.101	(.238)
D.		
Incur Count	.323†	(.167)
SDO (reversed)	-.129	(.173)
Incur Count x SDO	-.493†	(.280)

Notes: N=71. Entries are unstandardized regression coefficients from OLS regressions, with standard errors are in parentheses and p-values in brackets. Each of the 4 models included controls for gender, race, income, foreign born parents, ideology, party ID, openness to experience, and national identity. Reported p-values are based upon two-tailed hypothesis tests. †p<.10, *p<.05, **p<.01, ***p<.001.

APPENDIX A
SDO Question Wording

Social Dominance Orientation (Study1 and Study 2)

- (1) Some groups of people are simply inferior to others
- (2) In getting what you want, it is sometimes necessary to use force against other groups
- (3) To get ahead in life, it is sometimes necessary to step on other groups
- (4) Inferior groups should stay in their place
- (5) Group equality should be our ideal
- (6) We should do what we can to equalize conditions for different groups
- (7) We would have fewer problems if we treated people more equally
- (8) We should strive to make income as equal as possible

Response Options: (1)-“Strongly Agree” (2)-“Agree” (3)-“Uncertain” (4)-“Disagree” (5)-“Strongly Disagree”

APPENDIX B
Correlations between Key Variables

Study 1

SDO scale	1.00								
Treatment	-0.01	1.00							
Anger scale	0.16	0.09	1.00						
Cultural Threat	0.13	-0.02	0.18	1.00					
Deport Illegals	0.25	-0.06	-0.07	0.33	1.00				
Official English	0.12	0.08	0.06	0.41	0.45	1.00			
Ideology	0.25	0.02	0.21	0.34	0.11	0.23	1.00		
National Identity	0.01	0.01	-0.07	0.30	0.30	0.39	0.31	1.00	
Spanish Ability	0.17	-0.17	0.06	-0.12	-0.02	-0.19	-0.01	0.10	1.00

Notes: N=111. Entries are zero-order correlations. Treatment is the dichotomous experimental condition variable, coded "1" for those receiving the treatment and "0" for those in the control group.

Study 2

SDO scale	1.00								
Language	-0.14	1.00							
Negative Emotions	0.12	0.23	1.00						
National Identity	0.20	-0.30	-0.08	1.00					
Openness scale	-0.02	0.12	0.13	-0.01	1.00				
Ideology	0.52	-0.19	-0.13	0.40	0.04	1.00			
Party ID	0.41	0.08	-0.10	0.27	0.12	0.74	1.00		
Contact with ESL Speakers	0.16	0.41	0.16	-0.06	0.06	0.09	0.17	1.00	

Notes: N=71. Entries are zero-order correlations. Language is the dichotomous language variable coded "1" for foreign language speakers and "0" for English-only speakers.