

Supporting Information

Enos 10.1073/pnas.1317670111

Confederates' Characteristics

To confirm that it was likely that the ethnicity of the confederates had been assumed to be Hispanic by persons on the train platform and to explore how train passengers might have viewed the confederates, I surveyed 757 persons. Respondents were shown either a photo of the face of one of the confederates, randomly selected from the seven confederates for each subject, or a photo of 1 of 14 other self-reported Hispanic or Anglo whites. These images were drawn from a sample of individuals from a similar age and sex balance as that of the confederates.

Respondents were shown the photo and a list of adjectives and asked to respond on a five-point scale indicating how well the word described the pictured face, ranging from "does not describe this face at all" to "describes this face perfectly." Fig. S1 displays the mean responses for all of the confederates, and the other Hispanic and Anglo faces.

The survey responses indicate nothing extraordinary about the appearance of the confederates. The confederates may have even had characteristics that would make them relatively desirable community members, including being "approachable," "intelligent," "successful," "professional," and "industrious." The confederates were not judged to be particularly "intimidating." Importantly, when asked about the adjectives "foreign" and "immigrant," the confederates were more likely than Anglo whites and about equally as likely as other Hispanics to be identified as such. In open-ended responses, the confederates were typically described as looking "nice" and physically attractive.

Subsets

I also examined the effect on subsets that are informative about the validity of the treatment and the mechanism causing the attitudinal shift. Among the variables collected in the survey, I examined pretreatment variables that are prominent in the literature or have a clear theoretical expectation. No randomization occurred between these subsets, so the difference between subsets should not be interpreted as evidence of a causal effect of the subsetting variable.

I created subsets by the self-reported number of Latino friends before beginning the experiment. With people who have the lowest level of Latino friends (zero), the effect becomes even larger, which might be expected because the treatment would be more novel to these individuals or they might have a stronger underlying aversion to Latinos (Fig. S2).

The effects may be moderated by political ideology (Fig. S3). The effect is clearly stronger for liberals and moderates, with conservatives showing little movement from T1 (completion of a Web-based survey) to T2 (completion of a second round of the survey, with the same attitudinal questions) and their effects actually more negative than positive. Of course, across all questions, conservatives had higher (more exclusionary) baseline values, leaving less room to change. These effects indicate that reactions to demographic change happen most strongly with

liberals and moderates, perhaps especially moderates who likely have weak ideological commitments to the policies in question. This finding is consistent with classic theories of ideology and information that find that moderates are more susceptible than ideologues to updating their policy preferences based on new information (1).

The effects are not consistently moderated by income (Fig. S4). Nearly all respondents are fairly high-income, with the bottom quartile representing less than \$105,000 annual income, so extrapolation to larger populations should be done with caution. Income subsets do not show a consistent pattern, but there is some evidence that lower-income persons are more affected by the treatment. The relatively uniform response across income groups is consistent with findings that show little variation in anti-immigrant attitudes across social class (2), suggesting that these attitudes are based on ideology, rather than on material self-interest.

Comparison with Simple Language Priming

Other studies have demonstrated the effect of Spanish-language priming on attitudes among English-speaking whites in the United States (3). In one experiment, for example, exposure to a Spanish-language Web site was associated with a significant change in immigration attitudes (4). In light of these results, it could be that the treatment in my experiment is actually just the prime caused by hearing Spanish, not the actual fear of demographic change. To test this theory, I recruited a different sample of subjects for a Spanish-language-priming experiment. Subjects were recruited using the same method from the same train stations used for the main experiment, so the sample in both experiments is largely similar persons, although subjects were not randomized into the two different experiments, so comparisons should be made with caution. These subjects were offered the same survey as subjects in the primary experiment, but half were randomized into a treatment condition where they were given the option of choosing to take the survey in Spanish; the control condition only had the option to take the survey in English. If my main experimental results were merely a result of Spanish language prime, rather than priming demographic change, we should expect to see similar average treatment effects (ATEs) in both the main experiment and the simple language priming experiment. However, the results of the priming experiment are that opinions on all questions moved in an exclusionary direction, but the effect sizes were much more modest than in the main experiment (Table S1). This result demonstrates that the main experiment was more than just affective priming based on Spanish, but rather stimulated additional considerations, such as a fear of demographic change.

Recruitment Instrument

Fig. S5 is an example of the recruitment instrument, with the Visa cards removed.

1. Zaller JR (1992) *The Nature and Origins of Mass Opinion* (Cambridge Univ Press, New York).
2. Hainmueller J, Hiscox M (2010) Attitudes towards highly skilled and low skilled immigration: Evidence from a survey experiment. *Am Polit Sci Rev* 104(1):61–84.

3. Hopkins DJ (2011) Translating into votes: The electoral impacts of Spanish-language ballots. *Am J Pol Sci* 55(4):814–830.
4. Newman B, Hartman TK, Taber CS (2012) Foreign language exposure, cultural threat, and opposition to immigration. *Polit Psychol* 33(5):635–657.

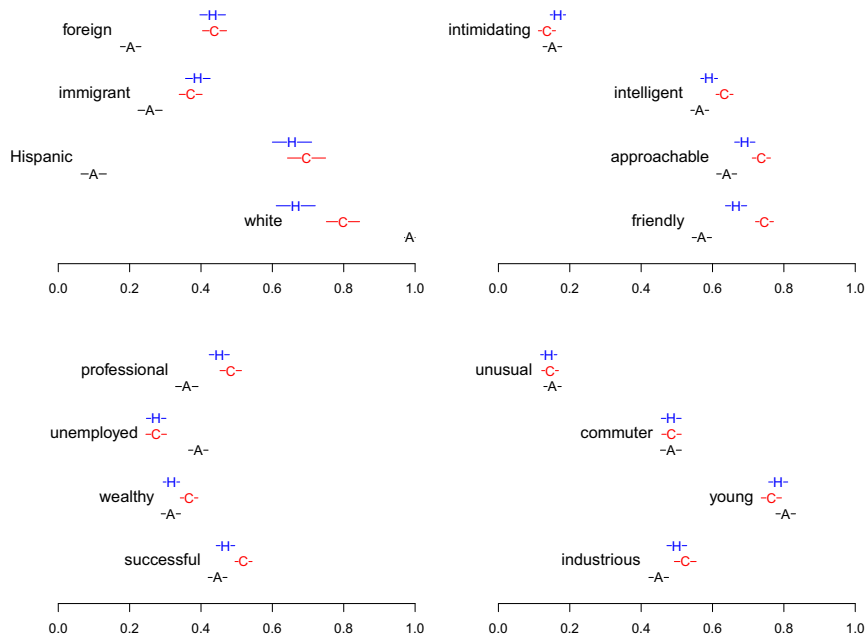


Fig. S1. Impressionistic confederate characteristics compared with other persons. Survey responses are divided into four panels for visual ease. Letters represent the mean response for each of the characteristics for confederates (C), other Hispanics (H), and Anglos (A). The dotted lines represent 95% confidence intervals of the mean estimate. Letters farther to the right mean that the faces were rated higher on this attribute. When the letters are clustered together, this indicates that respondents saw little difference between the faces. Survey $n = 757$. All variables are the average response on a five-point scale from 1 (“does not describe this face at all”) to 5 (“describes this face perfectly”) for each characteristic. All variables are recoded 0–1. *White* and *Hispanic* are the percent of respondents agreeing that the face looked “White” and “Hispanic,” respectively.

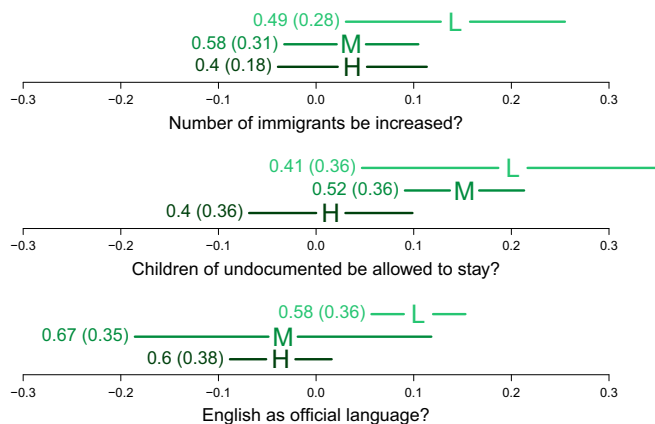


Fig. S2. Conditional ATE by number of Latino friends. Points are conditional average treatment effects (CATE) and 95% confidence intervals for persons with pretreatment, self-reported lowest quartile of Latino friends (L) (0), inner quartile (M) (0–5), or top quartile (H) (>5); $n = 24, 28,$ and $30,$ respectively. The T1 mean level and SD in parentheses are listed to the left of each symbol representing the CATE. Confidence intervals are constructed by drawing the 2.5% and 97.5% quantiles from the randomization distribution.

Table S1. Spanish-language priming experiment results

	Prime experiment	All respondents
Question	ATE (<i>P</i>)*	ATE (<i>P</i>)
Number of immigrants be increased? [†]	0.017 (0.301)	0.09 (0.008)
Children of undocumented be allowed to stay?	0.023 (0.434)	0.073 (0.016)
English as official language?	0.028 (0.296)	0.03 (0.27)
<i>n</i>	36	109

In the "Prime experiment" column, ATE represents responses in T2-T1 for the treatment group compared with the control group for the experimental sample for the priming experiment. In the "All respondents" column, ATE represents responses in T2-T1 for the treatment group compared with the control group for the entire experimental sample.

**P* values from a one-tailed test against the Null Hypothesis of no effect are in parentheses.

[†]All variables scaled 0–1.