Do Bilinguals Respond More Favorably to Candidate Advertisements in English or in Spanish?*

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Abstract

Candidates for political office in the United States can appeal to constituents in either English or in Spanish. We investigate the consequences of this choice in a series of survey experiments conducted on large, diverse samples of both monolingual and bilingual Americans. We take advantage of parallel advertisements produced in both English and Spanish by real candidates for national office – one presidential and two congressional. Because our design holds constant candidates' policy positions, we can attribute the effects on vote choice directly to the choice of language over and above other candidate attributes. In two of our three experiments, the Spanish-language advertisements increased candidates' electoral support by 5 percentage points among bilinguals. We find the opposite pattern of results among English-speaking monolingual Americans, who respond very negatively to Spanish language advertisements. Our results shed light on the strategic calculus of candidates who must appeal to multiple linguistic communities at once.

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The 1960 presidential campaign featured the first national Spanish-language appeal to the voting bloc that would in subsequent decades come to be described as "Hispanic" or "Latino." Fluent in Spanish and appearing on behalf of her husband, Jacqueline Kennedy delivered a minute-long televised ad highlighting the presidential hopeful's concern for "*los intereses de todos los sectores de nuestra sociedad que necesitan la protección de un gobierno humanitario*" [the interests of all sectors of our society who are in need of the protection of a humanitarian government]. Targeted Spanish-language messaging since then has expanded, broadening the scope of how candidates communicate to Latino voters. In March 2014, for example, President Barack Obama participated in a town hall event in Spanish on Univision and Telemundo to generate support for the Affordable Care Act and to address concerns about his stance on immigration. Similarly, President George W. Bush told Latinos that "*Es Un Nuevo Día*" [It's a New Day]; President Obama assured Latino voters that "*Sí Se Puede!*" [Yes We Can]; Governor Mitt Romney touted his "*Liderazo Sólido*" [Strong leadership] and offered "*Un Mejor Camino*" [a better path]; and "*La Hillary*," Secretary Hillary Clinton, said "*Para el señor Trump, solo tengo una palabra: Basta!*" [I have just one word for Donald Trump: Enough!] from her Spanish-language Twitter account "Latinos for Hillary."

What are the political consequences of communication in Spanish versus English? The answers yielded by previous research have depended on the domain. In some domains, the choice of language does not appear to affect outcomes as much as the content of what is communicated. For example, Abrajano and Singh (2009) find that Spanish- and English-language news sources differ in the content they deliver and that the audiences who consume news in English, Spanish, or both differ in their political views. They write "To be clear, *where* Latinos receive their news is crucial not because of the actual language of communication, but because the source (English or Spanish) is indicative of the goals of the news organization, and their subsequent decisions on how to discuss a particular issue." (2, emphasis in original).

In other domains, the language of an appeal can indeed influence outcomes. Within the literature on voter mobilization of Latinos, Soto and Merolla (2006) compared the 2000 election turnout rates of Latino survey respondents, finding that those who reside in places that received higher doses of Spanish-language advertisements were more likely to vote. Using a similar research design with a different source of survey respondents, Barreto et al. (2011) find that survey respondents who reported being contacted by Latino campaign workers were more likely to vote than those contacted by non-Latinos. Comparing voter turnout

for Latinos in districts satisfying voting mandates under the revised Voting Rights Act with those in regions that did not, Jones-Correa (2005) finds that Latinos residing in areas where Spanish-language voting materials were made available were more likely to have voted than those living in jurisdictions without these linguistic accommodations. These results are consistent with other studies that suggest language is most likely to shape political behavior when proficiency in English is limited (Hopkins 2011; Parkin and Zlotnick 2011). Using survey data from the Latino National Survey (LNS), Hopkins found, for example, that Spanish-language ballots have a strong impact on Latinos with limited proficiency in English, increasing turnout by 11 percentage points on average.

A growing literature studies Latino turnout using randomized Get-Out-The-Vote (GOTV) experiments (e.g., Panagopoulos and Green 2010; Bedolla and Michelson 2012; Valenzuela and Michelson forthcoming). However, only two such experiments (Abrajano and Panagopoulos 2011; Binder et al. 2013) explicitly randomize the language of contact. Abrajano and Panagopoulos (2011) find that Spanish-language GOTV appeals were *less* effective than their otherwise identical English-language counterparts, even among subjects whose primary language is Spanish. These authors offer two possible explanations for the negative effect of the Spanish-language treatment relative to the English language treatment, namely, that Spanish may trigger a "language-related inferiority complex" (Koslow et al. 1994) or that English may be more effective because it is viewed as the language of official communication (Valdés and Seoane 1995). Binder et al. (2013) come to similar conclusions regarding the ineffectiveness of a Spanish-language appeal among both English- and Spanish-dominant Latinos.

Previous work has found that language choice may influence outcomes within the domain of candidate appeals, the focus of the current article. For instance, Barreto and Nuño (2011) find that Latino voters who were contacted by a Latino Republican were more likely to support President Bush and demonstrate support for conservative political issues than those contacted by a non-Latino Republican. A Latino Decisions study, for example, examined whether recent Spanish-language immigration ads run by the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) had any effect on the political views among Latino voters. Comparing responses between Latino voters who regularly watch television in Spanish and recalled seeing the ads to those that were not exposed to the ads, the study found that a large majority of Latinos who were exposed to the Spanish-language ads had a negative evaluation of the Republican Party and that Latino voters who saw the ads were twice as likely to describe the Republican Party as "anti-immigrant" than those who

did not (Barreto 2013). Abrajano (2010) finds a similar pattern: Latino voters exposed to more of Gore or Kerry's Spanish language ads were more likely to vote for these candidates. These observational studies support the contention that use of Spanish can underscore a candidate's personal connection to the Latino community.

We seek to understand the strategic environment in which candidates choose *whether* and *whom* to target with Spanish-language appeals. Clearly, if candidates face electorates that are composed of monolingual English speakers, monolingual Spanish speakers, and bilingual English and Spanish speakers, they would ideally like to create language-specific appeals to each of the monolingual groups. It is not ex ante clear how they should target the bilingual group. Furthermore, the microtargeting strategy is not without risks. In a classic example, President Gerald Ford infamously ate a tamale without first removing the inedible corn husk wrapper, embarrassing himself in front of his intended audience of Mexican-Americans (Popkin 1994). Recent studies have further investigated the consequences of mistargeting, finding that candidates are penalized when they reach an unintended audience with a culturally specified message (Hersh and Schaffner 2013). Candidates who are considering producing Spanish-language advertisements must therefore weigh the benefits of directly appealing to Spanish-speakers against the potential costs of reaching exclusively English-speaking constituents.

Studying the strategic environment faced by candidates requires a deeper understanding of the consequences of candidates' language choices. However, both candidates and the scholars who study them face a major inferential challenge: usually, when language changes, so too does content. In 2015 and 2016, for example, the Republican Party delivered responses to the State of the Union address in both Spanish and English. Not only were the speakers different (Latino party members spoke in Spanish and non-Latino members spoke in English), but the two speeches were markedly different in their content, particularly on the issue of immigration. Differentiating the separate effects of language and content is impossible in this scenario, as they move together. In statistical terms, these factors are "perfectly collinear."

Our study addresses this challenge by taking advantage of a relatively rare occurrence: candidates for national office who produce the exact same campaign advertisements in both Spanish and English. While many candidates have released ads in both English and Spanish, the vast majority of ads produced in one language have no counterparts in the other language. For example, when ads are otherwise parallel, the Spanish-language version is often overdubbed by a voice actor who speaks about the candidate in the third person, whereas the English-language version is in the first person, spoken by the candidate. Further, Spanish

language ads often contain less policy content than English language ads (Abrajano 2010, Chapter 4).

We count ourselves lucky that we were able to find three candidates who produced otherwise identical versions of the same advertisement in both English and Spanish: Jeb Bush running in the 2016 Republican Presidential Primary, Democrat Filemon Vela running for Congress in Texas's 34th district and Republican Mike Coffman running for Congress in Colorado's 6th District. In all six advertisements, the candidate speaks directly to the camera and in his own voice; the text of the ads, the b-roll, and the background music are all equivalent across versions. All three candidates speak excellent Spanish. The external validity of our experiment is bolstered by the fact that we use real, rather than hypothetical, candidates. Furthermore, our experiment with the Bush ads was conducted the day before the New Hampshire primary and our experiment with the Congressional candidates was conducted in advance of the 2016 general election. We contend that our survey responses therefore capture realistic candidate appraisals with clear, practical electoral implications.

Our subject pool was furnished by Lucid, a firm that can provide samples that are demographically targeted on the front end. In the Bush experiment, we recruited 2,866 self-identified bilinguals, 1,862 of whom passed a simple quiz in both languages. In the Vela and Coffman experiments, we similarly recruited a sample of 2,233 bilinguals, of whom 1,681 passed the quiz. In addition to this bilingual sample, we also recruited an English-speaking Monolingual sample of subjects into the Vela and Coffman experiments. We can therefore answer two questions well. First, does the Spanish-language ad increase candidate support over and above the English-language ad among bilinguals? Second, does the Spanish-language ad have unintended consequences if it is "mistargeted," that is, shown to monolingual Americans.

Our study also touches on a related literature on how the language spoken by bilinguals can influence their political identities. In addition to randomizing whether survey subjects saw an English- or Spanish- language Bush advertisement, we also randomized the language in which the survey was conducted (among bilinguals). In a series of studies investigating the relationship between the language-of-interview and variation in opinion among Latino respondents, Perez finds systematic differences across linguistic modes (Pérez 2009, 2011, forthcoming). Theory in psycholinguistics suggests that language is encoded in events and that the choice of language affects how information is retrieved from memory. The Encoding Specificity Principle, introduced by Tulving and Thomson (1973) and more recently explored by Marian and Neisser (2000), suggests that memories are context-dependent and retrieval

of information is conditioned on reproducing the environmental cues in which an event was encoded into memory. Language itself can be such a context. Schrauf and Rubin (2000) find that among bilinguals events, memories, and concepts are accessible along the linguistic pathways through which they were acquired. Hispanic immigrants, for example, were able to recall autobiographical memories from earlier years in their life better when interviewed in Spanish and were able to reference more recent events in English. Perez, grounding his work in that theory, provides evidence that ethnic and national identity are associated with specific linguistic cues. Bilingual Latinos, for example, were more likely to remember basic political knowledge about the U.S. when responding to survey questions in English than in Spanish (Pérez 2011, forthcoming). Moreover, Perez finds that among bilingual Latinos, the linguistic condition determines if "American" or Latino identities are more salient (Pérez forthcoming).

Randomizing the language of interview helps our study with two goals. First, we are concerned that hearing a candidate speak in Spanish versus English may influence attitudes via the channels identified by Perez rather than directly by an affective response to the candidate. If we find that the effects of the Spanish-language ad are similar regardless of the language of interview, we can rule these alternative channels out. Second, our design offers an opportunity to replicate and extend some of the important findings in Perez's work.

To preview our results, we find that the Spanish-language ad increases the probability that bilingual subjects would vote for Bush by approximately 5 percentage points in a hypothetical general election matchup against Hillary Clinton. We find similar effects for Vela, the Democratic congressional candidate, but not for Coffman, the Republican congressional candidate. It is overwhelmingly clear that monolingual Americans severely punish candidates who mistarget them with Spanish-language ads. Finally, whether or not bilingual subjects take the survey in Spanish does not appear to moderate the effects of the language of advertisement, although consistent with Perez, we find that the Spanish-language survey increases bilingual respondents' sense of linked fate (Dawson 1994).

The remainder of this article will proceed as follows. First, we will provide a theoretical framework that predicts why and for whom the language of an appeal should change its effectiveness. Importantly, we will provide scope conditions for the causal quantity in question, namely, that it is only defined for bilingual subjects. Second, we will detail our experimental design. Third, we will present results for our main dependent variable (vote preference in the general election) before exploring the possible mechanisms by which the treatment operates. Our results section will include a brief analysis of language-of-survey

effects. We conclude with a discussion of the implications of our results for the study of multilingual voter outreach.

1   Theory and Scope Conditions

Existing theory suggests two main mechanisms through which language may exert its persuasive impact: priming of subjects' predispositions and reinforcement of social identities. Some evidence for a priming hypothesis has been found in consumer research. Carroll and Luna (2011) found that subjects gave higher consumer satisfaction ratings to advertised products that used words in Spanish than to those ads only in English. Luna et al. (2008) suggest that attitudinal differences in response to bilingual messaging emerge because language activates distinct cognitive processes and mental frames that make certain considerations and identities more salient even in response to the same information. Marketing research on the effects of product advertising to linguistic subpopulations suggests that enhanced affect results from message-recipients' positive perceptions about the source (Carroll and Luna 2011; Koslow et al. 1994) and that subjects respond more favorably to such advertisements (Luna and Peracchio 2001).

Social identity theory suggests that individuals seek to categorize themselves and others based on shared characteristics (Tajfel 1981). These in-group and out-group distinctions have a powerful influence on attitude formation; for example, this effect was demonstrated in studies where people expressed positive feelings toward their own group or were more likely to adopt and be persuaded by arguments when made by fellow group members (Mackie and Cooper 1984). Testing group-based thinking and the moderating strengths of cultural differences on attitudes, Hopkins (2014, 2015) finds that brief exposure to Spanish induces anti-immigrant hostility among non-Latino white respondents. Language is not politically neutral: emerging research in linguistics suggests that political biases such as partisanship can even be encoded in word pronunciation (Hall-Lew et al. 2010). Consistent with this literature, we posit that the choice of language highlights the intended audience, concurrently communicating the ideologies and identities associated with that group membership. In essence, we argue that for bilinguals, Spanish-language political appeals are persuasive because they highlight the speaker's affinity with and respect for the Latino in-group, however that may be constructed for the voter.

A brief formalization using potential outcomes notation (Rubin 1974) will help to clarify our predictions, as they depend crucially on whether subjects speak Spanish, English,

Table 1: Potential Outcomes of Four Subject Types

Type	Languages Spoken English	Spanish	Potential Outcomes $Y_i(0)$	$Y(E)$	$Y(S)$
Bilingual	1	1	$Y_i(0)$	$Y_i(0) + \tau_{i,E}$	$Y_i(0) + \tau_{i,S}$
Spanish Only	0	1	$Y_i(0)$	$Y_i(0) + \gamma_{i,E}$	$Y_i(0) + \tau_{i,S}$
English Only	1	0	$Y_i(0)$	$Y_i(0) + \tau_{i,E}$	$Y_i(0) + \gamma_{i,S}$
Non-English, Non-Spanish Speaker	0	0	$Y_i(0)$	$Y_i(0) + \gamma_{i,E}$	$Y_i(0) + \gamma_{i,S}$

both, or neither. $Y_i(0)$ is the outcome that subject i would express in the absence of any intervention on our part. $Y_i(E)$ and $Y_i(S)$ are the outcomes that subject i would express if exposed to the English or Spanish language treatment, respectively. We can decompose $Y_i(E)$ and $Y_i(S)$ into two parts: $Y_i(0)$ and an individual treatment effect. For subjects who speak English, the individual treatment effect of the English language ad is $\tau_{i,E}$. Similarly, for subjects who speak Spanish, the effect of the Spanish language ad is $\tau_{i,S}$. These effects are due to both the direct information about a candidate's quality as well as the indirect information that subjects may glean due to the candidate's choice of language. The subjects who do not speak or understand the language in an ad may also express different outcomes depending on which condition they are in.[1] However, this effect will reflect only the information that subjects obtain via indirect channels because subjects cannot understand the direct information about candidate quality. For this reason, in Table 1, these effects are indicated as $\gamma_{i,E}$ and $\gamma_{i,S}$, for the effects of the English and Spanish language ads, among those who do not speak that respective language.

Our main estimand is $E[\tau_{i,S} - \tau_{i,E}]$, the average difference in the effects of the Spanish language ad versus the English ad. As can be seen in Table 1, this quantity can only be obtained among bilinguals. Bilinguals are a heterogeneous group. Some speak Spanish at home and English at work and school; some are native English-speakers who use Spanish in their daily lives. While we expect the political preferences within this group to vary in interesting and complex ways, our theoretical prediction about the *treatment effects* pertains to all bilingual Latinos. Our main hypothesis is that $E[\tau_{i,S} - \tau_{i,E}]$ will be positive, that is, we predict that seeing the Spanish advertisement will increase the likelihood that a bilingual subject will report higher support for the advertising candidate.

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[1]For example, Enos (2014) reports the results of an experiment in which the attitudes of Bostonians were affected by the presence of Spanish-speaking confederates despite presumably not being able to understand Spanish.

A second estimand is $E[\gamma_{i,S} - \tau_{i,E}]$, the average difference in the effects of the Spanish language ad versus the English language ad. This effect can only be estimated among English-speaking monolinguals. This estimand includes the bewilderment at not understanding what is being communicated in the ad as well as any affective associations the subject may have with the Spanish language. Our expectation, in line with Hersh and Schaffner (2013), is that $E[\gamma_{i,S} - \tau_{i,E}]$ will be negative for English-speaking monolinguals. We note that this estimand does not capture the pure effect of language per se, because both language and the content that is successfully communicated by the advertisement differ across the two versions. This estimand captures the effect of mistargeting constituents with the "wrong" language and therefore enriches our understanding of candidates' strategic environment.

2 Experimental Design

Our definition of our two causal estimands indicates that we have two separate populations of interest: bilingual Americans and English-speaking monolingual Americans.

2.1 Sampling Bilinguals

Obtaining a sample that is representative of all American bilinguals via random sampling is very costly because they make up a relatively small share of the national population. We turn instead to a convenience sample of bilinguals obtained on an online exchange for survey responses. This exchange is maintained by Lucid, a market research firm.[2] Due to an extraordinarily high volume of survey respondents who pass through the exchange,[3] Lucid's exchange is an especially attractive tool for obtaining a large sample of subjects who are relatively rare in the population, in this case, bilingual Hispanics/Latinos.

We obtained our online convenience sample of bilinguals by screening for two criteria: self-identification as Hispanic or Latino according to the standard U.S. Census question and an answer of "Sí" to the following question that included elements in both English and Spanish: "Do you consider yourself to be bilingual in English and Spanish? Es decir, es

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[2]Coppock and McClellan (2017) show that the demographic and political profiles of Lucid subjects are very similar to equivalent national figures and successfully replicate a number of survey experiments, showing that experiments conducted on Lucid's platform yield results that are substantively similar to those obtained on national samples.

[3]Approximately 250,000 respondents per day, as measured by unique IP addresses (Coppock and McClellan 2017).

capaz de hablar y entender español e inglés? (Sí / No)."[4] In our first experiment (Bush), we collected responses from 2,866 self-identified Latinos, of which 1,862 passed a language quiz in both Spanish and English, the full text of which is presented in the appendix.[5] We consider these 1,862 who passed the quiz to be "bilinguals." In our second and third experiments (Vela and Coffman), we obtained responses from 2,233 self-identified bilinguals, 1,681 of whom passed the quiz.

Table 2 compares the demographics of bilingual Lucid subjects in the Bush experiment with those of bilingual respondents in the 2006 Latino National Survey and the 2012 Pew National Survey of Latinos.[6] On average, Lucid bilinguals are more female, slightly better educated, and slightly higher income than either the LNS or Pew bilinguals. The age profile on Lucid is similar to the LNS and lower than Pew. With respect to ancestry, Lucid yields strong numbers of those from Mexican, Cuban, and other Hispanic backgrounds. Unfortunately, the demographic data supplied by Lucid did not disaggregate backgrounds with sufficient granularity, so Latinos from Puerto Rico are grouped in the residual categories. We aggregated the more finely grained Pew and LNS data into these same categories for ease of comparison. Relative to Pew and the LNS, the Lucid sample includes fewer bilinguals of Mexican ancestry.

Table 2 confirms that our sample is different from the national population of bilinguals. Whether or not our results generalize to the population does not depend on these differences; what matters is whether the *treatment effects* differ between our sample and the population. Recent research comparing survey experimental findings obtained on convenience and national samples has found a high degree of correspondence across samples (Mullinix et al. 2015; Coppock 2016). For this reason, we expect (but cannot confirm) that the results that we measure in the sample will generalize to the national population of bilinguals.

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[4]In English, the second half of the question reads, "That is, are you able to speak and understand Spanish and English?"

[5]If, as seems plausible, performance on the language quiz is unmoved by our treatments, then we induce no bias by conditioning our analysis on passing the quiz. For a discussion of the biases associated with dropping subjects based on a post-treatment manipulation check, see Aronow et al. (2016).

[6]For the Latino National Survey, bilinguals are defined as subjects who took the survey in Spanish (English) who said they could carry on a conversation in English (Spanish) "pretty well" or "very well." The Pew survey codes subjects as bilingual depending on their answers to a series of language proficiency questions.

Table 2: Comparison of Lucid Bilinguals to National Sample Bilinguals

	Lucid	LNS	Pew
Female	0.70 (0.01)	0.52 (0.01)	0.46 (0.02)
Age	34.80 (0.30)	33.78 (0.29)	40.11 (0.84)
Education (5 levels)	3.01 (0.03)	2.49 (0.02)	2.45 (0.05)
Mexican	0.49 (0.01)	0.67 (0.01)	0.59 (0.02)
Cuban	0.07 (0.01)	0.04 (0.00)	0.05 (0.01)
Other Hispanic	0.44 (0.01)	0.29 (0.01)	0.36 (0.02)
Income (7 levels)	4.11 (0.05)	4.06 (0.04)	
Income (9 levels)	4.49 (0.05)		4.09 (0.11)
N	1,862	4,184	715

Entries for LNS and PEW are weighted means.
Standard errors are in parentheses.

2.2 Sampling English-speaking Monolinguals

Obtaining a sample of English-speaking Monolinguals is relatively easier. Our sample is also drawn from Lucid, which quota samples subjects to be approximately representative of the US national population. At the end of the survey, we also administered our language quiz to these subjects. Of the 2,230 "nationally-representative" subjects supplied to us, 1,344 did not pass the language quiz. These subjects constitute our monolingual sample. Because Lucid does not sample subjects from an explicit sampling frame, and because we apply this language quiz screen, we consider this sample to be a convenience sample as well. Coppock and McClellan (2017) suggests that the Lucid sample comports well with national benchmarks in terms of demographics as well as treatment effect estimates from survey experiments.

2.3 Experimental Treatments

We conducted three separate experiments, each of which followed very similar designs. Experiment 1 was conducted on February 8th, 2016, among 1,862 bilinguals the day before the New Hampshire primary. We employed a 2x2 factorial design in which the first factor was a Spanish or English language advertisement. The second factor is the language of the survey itself. Half the subjects took the entire survey in English, while the other half took the entire survey in Spanish. Experiments 2 and 3 were conducted in October 2016 among 1,681 bilinguals and 1,344 monolinguals. As in Experiment 1, bilinguals could be assigned to

take the survey in English or Spanish, but for obvious reasons, monolinguals took the survey exclusively in English. The same set of subjects participated in Experiments 2 and 3; the order in which they participated in each experiment was randomized. Table 3 summarizes the number of subjects in each condition. The number of subjects in each cell is consistent with random assignment ($\chi^2 = 7.3$, $df = 7$, $p = 0.40$).

Table 3: Design of Experiments 1, 2, and 3

	English Language Ad	Spanish Language Ad
Experiment 1: Jeb Bush, Bilingual Sample		
English-Language Survey	462	488
Spanish-Language Survey	452	460
Experiment 2: Filemon Vela, Bilingual Sample		
English-Language Survey	437	442
Spanish-Language Survey	420	382
Experiment 2: Filemon Vela, Monolingual Sample		
English-Language Survey	675	669
Experiment 3: Mike Coffman, Bilingual Sample		
English-Language Survey	455	424
Spanish-Language Survey	421	381
Experiment 3: Mike Coffman, Monolingual Sample		
English-Language Survey	711	633

As mentioned above, the two versions of each ad were nearly identical in terms of visuals, spoken content, and length. Table 4 shows the exact transcripts of each ad. With very few exceptions, the Spanish and English versions are word-for-word translations of one another. Translation is an imperfect art. We grant that some text might have very slight differences in political emphasis. For example, in his English language ad, Mike Coffman promises to "hold [Hillary Clinton] accountable every step of the way." In the Spanish language version, he promises to "hare que su administración diga la verdad." [ensure that her administration tells the truth] If these subtle differences are consequential for subjects' post-treatment survey responses, they constitute very small excludability violations (Gerber and Green 2012). As a statistical matter, we cannot rule out that any differences in outcomes might be due to slight slippage in content across the two versions of the ads. We appeal, therefore, to a broader reading of each version of the ad; they are very similar in nearly every dimension save language.

Bilingual subjects could also be randomly assigned to take the survey in either English

Table 4: Advertisement Treatments

	English Language Ad	Spanish Language Ad
Experiment 1: Jeb Bush (White Republican running in 2016 Presidential primary)		
Title	Jeb: Greatest Century	Jeb: Listo Para Ser Su Líder
Length	1:04 min	1:12 min
Link	https://www.youtube.com/watch?v=43z_L64GCrs	https://www.youtube.com/watch?v=iwW3Ak_cUEE
Transcript	I'm proud of what we accomplished in Florida; proud we're able to make a difference to change lives. We grew our economy and led the nation in job growth; defended life and protected women from domestic violence; eliminated waste and balanced budgets; reformed schools and gave every child an opportunity. We led, we reformed, we got results. That's what's missing from Washington. The DC crowd talks about what's wrong with America, I see what's right. They talk about problems, I see solutions. I see hard working men and women who are ready to rise; children who are ready to learn; entrepreneurs who are ready to innovate; immigrants who are ready to contribute; America's bravest who are ready to defend. I see a great country on the verge of its greatest century and I'm ready to lead.	Estoy muy orgulloso de lo que logramos en Florida; orgulloso de haber hecho una diferencia en el estado; de haber mejorado vidas; crecimos nuestra economía y fuimos líderes en la creación de empleos; defendimos el derecho a la vida y protegimos a las mujeres contra la violencia doméstica; eliminamos despilfarros y balanceamos presupuestos; reformamos la educación y le dimos oportunidades a cada niño; lideramos, reformamos, logramos resultados; en Washington solo se enfocan en lo que anda mal. Yo veo lo que está bien. Ellos hablan de los problemas. Yo veo las soluciones. Veo mujeres y hombres trabajadores listos para salir adelante. Niños listos para aprender. Emprendedores listos para innovar. Inmigrantes dispuestos a trabajar. Y los más valientes del país, listos para defendernos. Cuando miro hacia el futuro veo una gran nación a punto de comenzar su mejor siglo y yo estoy listo para ser su líder.
Experiment 2: Filemon Vela (Latino Democrat running in 2016 Congressional general election)		
Title	Parents	Los Padres
Length	0:30 min	0:30 min
Link	https://www.youtube.com/watch?v=sWntXjzyDQ8	https://www.youtube.com/watch?v=R7DPMyEGcWM
Transcript	I'm Filemon Vela, and I approve this message. My parents taught me to always be honest, work hard, and do what's right. They dedicated their lives to public service and to helping people. I'm proud to share those beliefs. I've dedicated my life to fighting for people and making sure their voices are heard. I'm not a politician, but if I'm elected to Congress, I give you my word, I'll dedicate all of my energy and giving you the representation and the voice you deserve in Washington. I'm Filemon Vela and I want to be your next US Congressman.	Yo soy Filemon Vela y yo apruevo este mensaje. Mis padres dedicaron su vida al servicio publico y ayudar a la gente. Me siento orgulloso de compartir esa coneccion. Yo he dedicado mi vida a pelear por la gente, asegurándome que sus voces sean escuchadas. No soy un político pero si soy elegido para el Congreso, tienes mi palabra que voy a dedicar toda mi energía para representar la voz que mereces en Washington. Soy Filemon Vela y quiero ser congresista de los EEUU.
Experiment 3: Mike Coffman (White Republican running in 2016 Congressional general election)		
Title	Country First	Country First (en Español)
Length	0:30 min	0:30 min
Link	https://www.youtube.com/watch?v=dA8Yv2tJQfY	https://www.youtube.com/watch?v=XoNJaYLBXMg
Transcript	People ask me, "What do you think about Trump?" Honestly, I don't care for him much, and I certainly don't trust Hillary. I'm a Marine. For me, country comes first. My duty is always to you. So if Donald Trump is President, I'll stand up to him. Plain and simple. And if Hillary wins, I'll hold her accountable every step of the way. I'm Mike Coffman, and I approve this message. My job is clear: work hard and serve you. That's what I'll do.	La gente me pregunta, "Que crees de Trump?" Honestamente, el no me gusta mucho y no confio en Hillary. Yo soy un Marine. Para mi, mi país siempre viene primero. Entonces, si Donald Trump es el Presidente, yo le hago frente. Si gana Hillary Clinton, hare que su administración diga la verdad. Yo soy Mike Coffman, y apruebo este mensaje. Quien gane, mi deber es a ustedes.

or Spanish. We introduced this design element in order to answer a series of ancillary questions. First, within each advertisement condition, are the answers to our dependent variables similar whether the questions are in Spanish or in English? Indeed, we are in a position to test the supposition in Pérez (forthcoming) that, among bilinguals, taking a survey in Spanish increases subjects' reports of linked fate. Second, we are concerned that the Spanish-language ad may appear less effective than it actually is, because switching between languages (treatment video to survey question) may be cognitively taxing. For this reason, we randomize the language of the interview. If we find no interaction effect between the language of the interview and the language of the advertisements, we can conclude that no such process is at work.

2.4   Outcome measures

Our five outcome measures are shown below. We present the English-language versions here; subjects assigned to the Spanish-language survey saw these questions in Spanish, the full text of which is available in the appendix. Our main outcome measure is the candidate preference question, which is coded 1 if the respondent preferred the advertising candidate and 0 otherwise.[7]

> *Prefer Candidate in General*
>
>> Experiment 1: "If the 2016 election for President were being held today, and the candidates were Hillary Clinton the Democrat and Jeb Bush the Republican, for whom would you vote?" (First two response options in random order: Jeb Bush, Hillary Clinton, Don't know.)
>>
>> Experiment 2: "If the 2016 congressional elections were being held today and you were a voter in the district where Filemon Vela is running, for whom would you vote?" [Democrat Filemon Vela, Republican Rey Gonzalez Jr., Don't know]
>>
>> Experiment 3: "If the 2016 congressional elections were being held today and you were a voter in the district where Mike Coffman is running, for whom would you vote?" [Republican Mike Coffman, Democrat Morgan Carroll, Don't know]

We group these next three questions as intermediate outcomes, that is, the main mechanisms by which the treatment effects the preference outcomes. We will not conduct formal mediation analyses because the very stringent required assumption of sequential ignorability

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[7]In the Bush experiment, we also asked about electoral preference in the Primary; we omit the analysis of this dependent variable to maintain comparability across studies. The effects of the treatments on Bush's electoral support in the primary were slightly stronger than the effects in the general.

is unlikely to be satisfied in this experiment (Imai et al. 2010). However, we expect that any increase in declared electoral preference would be mediated at least in part by how much the Spanish-language ad moved the attitudes measured by these questions:

Like Candidate "Do you like [Candidate], dislike him, or neither like nor dislike him?" If *Like him*: "Do you like him a great deal, a moderate amount, or a little?" If *Dislike him*: "Do you dislike him a great deal, a moderate amount, or a little?" (Branching question mapped into scale from 1 to 7.)

Candidate Cares Do you think [Candidate] is someone who cares about people like you or someone who doesn't care about people like you? (Response options: 1: Cares about people like me, 0: Doesn't care about people like me.)

Confidence in Candidate How confident are you in [Candidate]'s ability to make the right decisions about illegal immigration—are you very confident, somewhat confident, not too confident, or not at all confident? (Scale from 1 to 4, where 4 indicates greater confidence.)

Finally, we include a measure of linked fate as a secondary outcome. In line with predictions from Pérez (forthcoming), we expect that this outcome will respond to taking the survey in Spanish more than to seeing the Spanish language advertisement.

Linked Fate Do you think that what happens generally to Hispanics and Latinos in this country will have something to do with what happens in your life? Will it affect you a lot, some, a little or not at all? (Scale from 1 to 4, where 4 indicates "a lot.")

We will model outcomes according to Equation 1, where $Z_{i,Ad}$ is an indicator for seeing the Spanish language ad and $Z_{i,Survey}$ is an indicator for taking the survey in Spanish. Because both $Z_{i,Ad}$ and $Z_{i,Survey}$ are randomly assigned, they are by design independent of subjects' idiosyncratic error terms, ϵ_i. Our main estimand of interest is β_1, the average treatment effect of the Spanish ad versus the English ad (averaged over both possible values of $Z_{i,Survey}$). We are also interested in β_2, the average treatment effect of taking the survey in Spanish versus English (only estimated among bilinguals). We will estimate β_1 and β_2 via Ordinary Least Squares (OLS). Some analysts prefer to analyze binary outcomes with nonlinear models such as logit or probit. We choose not to do this because our inferential target is the Average Treatment Effect (ATE), which is consistently estimated by OLS and has the virtue of a direct interpretation in terms of a percentage point change in the probability of choosing one option over the other (Gerber and Green 2012). Our substantive results do not depend on this choice.

$$Y_i = \beta_0 + \beta_1 Z_{i,Ad} + \beta_2 Z_{i,Survey} + \epsilon_i \quad (1)$$

This exact specification was preregistered at `egap.org` prior to the allocation of treatments or the collection of any data. All of the analyses that we report in the following section were included in our preanalysis plan.

3 Results

In this section, we present three sets of results: the effects of our treatments on candidate preferences, the effects on intermediate outcomes that may indicate the mechanisms through which the treatments affect preferences, and the effects of the language-of-interview on feelings of linked fate. Due to item non-response, the number of subjects who answer each question changes very slightly; item-nonresponse is unrelated to treatment assignment.

3.1 Effects on Candidate Preference

Table 5 shows our main results in all three experiments. We turn our attention first to columns 1, 2, and 4, which present estimates of Equation 1 among our bilingual samples. In column 1 we estimate that, relative to subjects who saw the English-language Ad, bilingual subjects who saw the Spanish-language Ad were 4.9 percentage points more likely to support Bush in the general election. We obtain the identical point estimate in our second experiment: the effect on bilinguals' general election support for Filemon Vela is also estimated to be 4.9 percentage points. Both estimates are statistically significant at conventional levels. However, this effect does not appear to extend to Mike Coffman, the Republican congressional candidate, who received no electoral reward from bilinguals who saw his Spanish-language Ad. We can only speculate as to the reasons why. The explanation cannot lie in his being White or being Republican, as Jeb Bush shares both those characteristics and the Spanish-language ad worked well for him. It is possible that Jeb Bush's Spanish-language appeals are seen as more authentic, perhaps because it is well-known that Bush is married to a woman of Mexican heritage. We nevertheless conclude from this section of the experiment that the Spanish-language appeals – even holding content constant by design – can increase support for candidates among bilinguals. This effect does not hold for all candidates, though we do not have a definitive explanation for what it is about the Spanish Coffman ad that does not

inspire support over and above his English ad.

Turning next to the effect of the language of survey, we see that whether or not bilingual subjects took the survey in Spanish or in English did not influence electoral support for either Bush or Coffman. Interestingly, we see in column 2 of Table 5 that being assigned to take the survey in Spanish increased support for Filemon Vela by an astounding 7.3 percentage points. We underline that this effect has nothing to do with any information provided by the candidate; it is due exclusively to the language in which subjects took the survey. This result is probably best explained by a theory of identity priming in which taking the survey in Spanish highlights our bilingual subjects' Latino identity; this in turn increases support for Vela, a Latino candidate.

Lastly, in columns 3 and 5, we consider the effects of the Spanish-language ad among English-speaking monolinguals. For Vela, the average effect is estimated to be negative two percentage points, though this estimate cannot be distinguished from zero. For Coffman, however, the effect is devastating. Relative to seeing the ad in English, support for Coffman decreases by 18.7 percentage points when subjects see the ad in Spanish, a language they do not speak.

Our first attempt to explaining the null result for Vela and the large and negative effect for Coffman was to determine if the Republicans who form Coffman's base of support are especially averse to the Spanish-language Ad. But fascinatingly, when we break down the sample by respondent partisanship (including leaners), we do not see that this electoral punishment for Coffman is concentrated among Republican respondents.[8] Among Republicans, the effect is -16.7 percentage points (SE: 4.0 points) and among Democrats it is -14.1 points (SE: 3.3 points). Among independents the effect is largest, at -22.8 points (SE: 5.4 points). Seeing as the partisanship story cannot explain this difference, we are left to speculate that Coffman's strengths as a candidate are undercut by the Spanish-language ad in a way that Vela's strengths are not.

3.2   Effects on Mechanisms

Tables 6, 7, and 8 display the estimated effects of treatment on our three intermediate outcomes, *Like Candidate*, *Candidate Cares* and *Confidence in Candidates*.

The Spanish-language ad causes bilingual subjects to like Bush somewhat more (0.167 points on a seven point scale), but has no apparent average effect on whether bilinguals like

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[8]This heterogeneous effects analysis was not preregistered ex ante and is reported here as an attempt to explain our main findings through exploratory analysis.

Table 5: Effect of Spanish-language Ad on General Election Support

	Bush: General Election	Vela: General Election		Coffman: General Election	
	(1)	(2)	(3)	(4)	(5)
Spanish-language Ad	0.049**	0.049**	−0.020	0.003	−0.187***
	(0.023)	(0.024)	(0.026)	(0.024)	(0.026)
Spanish-language Survey	0.005	0.073***		−0.028	
	(0.023)	(0.024)		(0.024)	
Constant (Control Mean)	0.449	0.535	0.366	0.384	0.513
	(0.020)	(0.021)	(0.019)	(0.020)	(0.019)
Sample	Bilingual	Bilingual	Monolingual	Bilingual	Monolingual
N	1,849	1,680	1,343	1,681	1,343

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$
HC2 robust standard errors are in parentheses.

Vela or Coffman. Monolingual subjects, however, react strongly negatively to both Vela's and Coffman's Spanish-language ad. These results suggest that (or at minimum do not contradict the notion that) the effects on electoral preference may be mediated by the extent to which subjects like candidates.

We also note that the Spanish survey itself increases how much subjects "like" Bush and Vela. The Spanish language survey asks subjects "Qué apreciación" [what appreciation] they have for the candidates. It could be that the question subtly changes subjects' self-rating of their affect towards the candidates, namely, that for the same level of affect, the Spanish-language measurement scale registers a value that is marginally higher than the English-language measurement. Alternatively, it could be that responding in Spanish activates a worldview that is mildly more appreciative of Bush and Vela. This is a fundamental challenge of translation. We cannot be sure whether observed differences are due to slight differences in meaning or the causal effect of thinking in one language versus another.

In Table 7, we report the effects of the treatments on whether the candidates "care about people like [the respondent]." We observe mildly positive effects among bilinguals on the order of 2 to 3 percentage points and massively negative effects among monolinguals – negative 15.2 percentage points for Vela and negative 15.5 points for Coffman. The Spanish-language ad definitively decreases the extent to which monolingual subjects think the candidates care about people like them.

The last of our three intermediate outcomes is the confidence subjects have in the candidate to make the right decisions about illegal immigration. What constitutes the "right" decision on immigration is obviously defined relative to the subjects' own views on the ques-

tion. In Table 8, we see a now-familiar pattern. The Spanish-language ad increases the confidence that bilingual subjects have in Bush and Vela and decreases the confidence that monolingual subjects have in Vela and Coffman, with the largest punishment reserved for Coffman.

Table 6: Effect of Spanish-language Ad on Liking Candidate (1-7)

| | Like Bush | Like Vela | | Like Coffman | |
	(1)	(2)	(3)	(4)	(5)
Spanish-language Ad	0.167**	0.068	−0.472***	0.019	−0.830***
	(0.075)	(0.067)	(0.070)	(0.077)	(0.074)
Spanish-language Survey	0.165**	0.149**		0.093	
	(0.075)	(0.067)		(0.078)	
Constant (Control Mean)	4.810	4.994	4.712	4.902	5.161
	(0.063)	(0.057)	(0.051)	(0.066)	(0.054)
Sample	Bilingual	Bilingual	Monolingual	Bilingual	Monolingual
N	1,862	1,680	1,341	1,680	1,342

*p < .1; **p < .05; ***p < .01
HC2 robust standard errors are in parentheses.

Table 7: Effect of Spanish-language Ad on Perceptions of Candidate Caring

| | Bush Cares | Vela Cares | | Coffman Cares | |
	(1)	(2)	(3)	(4)	(5)
Spanish-language Ad	0.037*	0.018	−0.152***	0.035	−0.155***
	(0.020)	(0.017)	(0.025)	(0.021)	(0.024)
Spanish-language Survey	−0.035*	−0.024		−0.045**	
	(0.020)	(0.017)		(0.021)	
Constant (Control Mean)	0.734	0.865	0.780	0.744	0.815
	(0.018)	(0.014)	(0.016)	(0.018)	(0.015)
Sample	Bilingual	Bilingual	Monolingual	Bilingual	Monolingual
N	1,858	1,680	1,336	1,680	1,337

*p < .1; **p < .05; ***p < .01
HC2 robust standard errors are in parentheses.

Figure 1 presents the effect estimates of the Spanish-language ad on all outcomes graphically. Overall, we see small to moderate positive effects among the bilingual sample for Bush and Vela and strongly negative effects among the monolingual sample for both Vela and Coffman.

In the appendix, we report the interactive effects of the Spanish-language Ad and the Spanish-language survey on all outcomes among our bilingual samples. Out of twelve op-

Table 8: Effect of Spanish-language Ad on Confidence in Candidate to Make Right Decisions about Illegal Immigration

	Confidence in Bush	Confidence in Vela		Confidence in Coffman	
	(1)	(2)	(3)	(4)	(5)
Spanish-language Ad	0.076*	0.103***	−0.160***	0.030	−0.310***
	(0.042)	(0.038)	(0.047)	(0.041)	(0.044)
Spanish-language Survey	−0.018	0.011		−0.084**	
	(0.042)	(0.038)		(0.041)	
Constant (Control Mean)	1.768	1.915	1.730	1.814	1.966
	(0.035)	(0.033)	(0.031)	(0.034)	(0.029)
Sample	Bilingual	Bilingual	Monolingual	Bilingual	Monolingual
N	1,861	1,680	1,338	1,679	1,338

*p < .1; **p < .05; ***p < .01
HC2 robust standard errors are in parentheses.

Figure 1: Effects of Spanish-Language Ad on Four Outcomes

Estimated Treatment Effects of Spanish versus English Language Advertisements
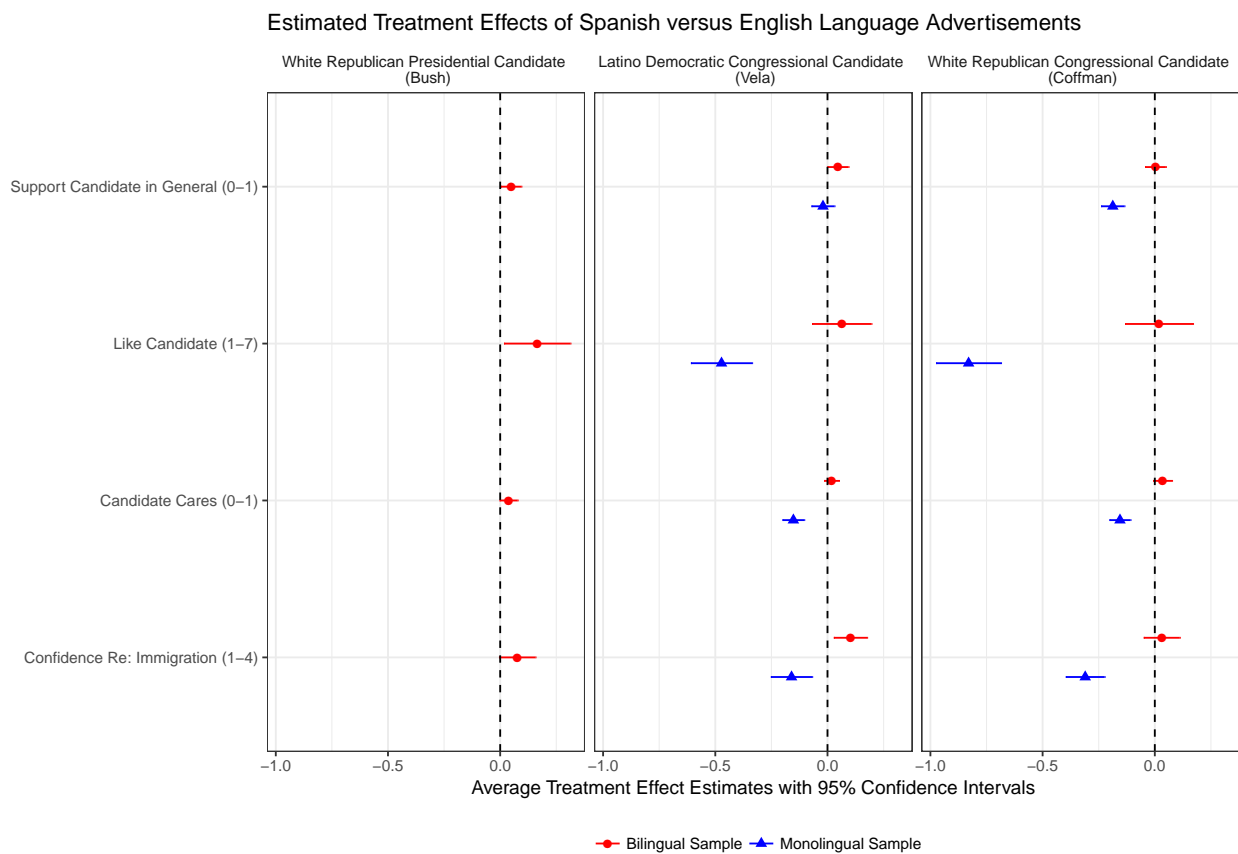
portunities, none of the interaction terms are significant at the 5% level. Two of the twelve are significant at the 10% level. We interpret this pattern of evidence to indicate that whatever interactive effects there may be between the language of survey and language of the advertisement, they are small.

3.3   Effects on Linked Fate

In this section, we turn to the effects of the treatments on subjects' sense of linked fate (Dawson 1994). While these effects are not our main focus, the design of our study allows us to replicate and extend previous results. In an observational study of the effects of language-of-interview, Pérez (2011) finds that subjects who interview in Spanish score 0.451 points higher on linked fate. In a footnote to an experimental investigation of language-of-interview effects, Pérez (forthcoming, footnote 27) speculates, "Still, I would expect, but cannot test here, that language impacts peoples sense of group consciousness, linked fate, and/or solidarity insofar as these flow from a specific group identity." Our design allows us to confirm both the observational finding and Perez's supposition in the context of a randomized experiment.

Table 9 presents the effects of taking the survey in Spanish on the linked fate question among bilinguals. The treatment raised linked fate by 0.24 scale points on average in the Bush experiment and by 0.13 scale points in the Vela and Coffman experiments. Both estimates are strongly statistically significant. This finding is solidly in line with both the observational finding and with Perez's theoretical expectation.

Table 9: Effect of Spanish-language Survey on Linked Fate

	Linked Fate	
	(1)	(2)
Spanish-language Survey	0.243***	0.131***
	(0.040)	(0.041)
Constant (Control Mean)	2.080	2.106
	(0.031)	(0.031)
Sample	Bilingual (Bush Experiment)	Bilingual (Vela and Coffman Experiments)
N	1,861	1,681

*p < .1; **p < .05; ***p < .01
HC2 robust standard errors are in parentheses.

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4 Discussion

Drawing on evidence from three randomized survey experiments, we have shown that the language a politician uses to communicate with a bilingual audience has electoral consequences. In the Bush and Vela experiments, bilingual subjects who were randomly assigned to view a Spanish-language ad were approximately 5 percentage points more likely to support the advertising candidate. This effect occurs not because of the content of the ad, which is held constant across the two versions, but because of the language used to communicate with the viewer. We believe that this effect occurs because viewers infer from the use of Spanish that Bush and Vela share an affinity with the Latino in-group. This same pattern of evidence extended to alternative measures such as liking the candidate or agreeing that he cares about "people like them."

We note that this effect does not automatically extend to any candidate. Mike Coffman, the White Republican Congressman running in Colorado, did not experience any increase in support. We can only speculate that bilingual subjects did not hear in Coffman's use of Spanish an authentic signal of in-group affinity.

We also learned from this experiment that mistargeting can have disastrous consequences. For both Vela and Coffman, speaking Spanish to an English-speaking monolingual audience caused large decreases in both electoral support and in other affective evaluations of the candidate. These effects were largest for Coffman, who also enjoyed higher support than Vela in the English-language ad condition. It is possible that Coffman had more support to lose among people who respond especially negatively to the Spanish-language ad.

Our study has wide-ranging implications for politicians who must appeal to multilingual constituencies. First and foremost, it is clear that familiarity with the Spanish language can increase a candidate's appeal within the United States context, though politicians must take care to tailor their messages to the correct linguistic communities. Though politicians often tailor their messages to suit different constituencies, our study shows that without even changing the message, changing the language of communication can have profound effects.

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A Interaction Regression Specifications

In this section, we will present estimates of the effects of treatment on all four dependent variables using a model that includes an interaction between the language of the advertisement and the language of the survey. As indicated by the small and statistically insignificant coefficients on the interaction terms, the effects of the advertisement treatment do not appear to be moderated by the language of the survey.

Table 10: Effects of Treatments on General Election Support

	Bush: General Election	Vela: General Election	Coffman: General Election
	(1)	(2)	(3)
Spanish-language Ad	0.061*	0.075**	−0.039
	(0.032)	(0.033)	(0.033)
Spanish-language Survey	0.018	0.100***	−0.069**
	(0.033)	(0.034)	(0.033)
Ad X Survey	−0.024	−0.055	0.087*
	(0.046)	(0.048)	(0.047)
Constant (Control Mean)	0.443	0.522	0.404
	(0.023)	(0.024)	(0.023)
Sample	Bilingual	Bilingual	Bilingual
N	1,849	1,680	1,681

*p < .1; **p < .05; ***p < .01
HC2 robust standard errors are in parentheses.

Table 11: Effects of Treatments on Perceptions of Candidate Caring

	Bush Cares	Vela Cares	Coffman Cares
	(1)	(2)	(3)
Spanish-language Ad	0.034	0.013	0.051*
	(0.028)	(0.022)	(0.029)
Spanish-language Survey	−0.038	−0.029	−0.028
	(0.030)	(0.024)	(0.030)
Ad X Survey	0.007	0.011	−0.034
	(0.041)	(0.034)	(0.043)
Constant (Control Mean)	0.736	0.867	0.736
	(0.021)	(0.016)	(0.021)
Sample	Bilingual	Bilingual	Bilingual
N	1,858	1,680	1,680

*p < .1; **p < .05; ***p < .01
HC2 robust standard errors are in parentheses.

Table 12: Effects of Treatments on Confidence in Candidate to do the Right Thing on Immigration

	Confidence in Bush	Confidence in Vela	Confidence in Coffman
	(1)	(2)	(3)
Spanish-language Ad	0.135**	0.107**	−0.040
	(0.058)	(0.052)	(0.056)
Spanish-language Survey	0.043	0.016	−0.154***
	(0.058)	(0.054)	(0.057)
Ad X Survey	−0.121	−0.010	0.146*
	(0.083)	(0.076)	(0.082)
Constant (Control Mean)	1.738	1.913	1.848
	(0.041)	(0.037)	(0.038)
Sample	Bilingual	Bilingual	Bilingual
N	1,861	1,680	1,679

*p < .1; **p < .05; ***p < .01
HC2 robust standard errors are in parentheses.

Table 13: Effects of Treatments on Liking Candidate (1-7)

	Like Bush	Like Vela	Like Coffman
	(1)	(2)	(3)
Spanish-language Ad	0.248**	0.166*	−0.089
	(0.101)	(0.093)	(0.104)
Spanish-language Survey	0.249**	0.250***	−0.016
	(0.107)	(0.092)	(0.111)
Ad X Survey	−0.166	−0.206	0.226
	(0.151)	(0.135)	(0.155)
Constant (Control Mean)	4.768	4.945	4.954
	(0.072)	(0.065)	(0.076)
Sample	Bilingual	Bilingual	Bilingual
N	1,862	1,680	1,680

*p < .1; **p < .05; ***p < .01
HC2 robust standard errors are in parentheses.

B Spanish-Language Survey

Prefer Candidate in General

"¿Si la elección para presidente fuera el día de hoy, y los candidatos fueran Hillary Clinton, por el Partido Demócrata y Jeb Bush, por el Partido Republicano, por quién votaría?" (First two response options in random order: Jeb Bush, Hillary Clinton, No sé.)

Si las elecciónes para el congreso fueran el día de hoy y usted fuera un votante en el distrito en donde Mike Coffman es candidato, ¿por quién votaría? [El Republicano Mike Coffman, El Demócrata Morgan Carroll, No sé]

Si las elecciónes para el congreso fueran el día de hoy y usted fuera un votante en el distrito en donde Filemon Vela es candidato, ¿por quién votaría? [El Demócrata Filemon Vela El Republicano Rey Gonzalez Jr., No sé.]

Like Candidate "¿Qué apreciación tiene sobre [Candidate], le agrada, le desagrada, o le es indiferente?" If *le agrada*: "¿Le agrada mucho, de manera moderada, o muy poco?" If *le desagrada*: "'Le desagrada mucho, de manera moderada, o muy poco?" (Branching question mapped into scale from 1 to 7.)

Candidate Cares "¿Usted cree que [Candidate] es alguien a quien le importa gente como usted o es alguien a quien no le importa gente como usted?" (Response options: 1: Cares about people like me, 0: Doesn't care about people like me.)

Confidence in Candidate "¿Cuánta confianza tiene usted en la capacidad que tiene [Candidate] para tomar las decisiones correctas sobre la cuestión de la inmigración ilegal: tiene mucha confianza, cierto grado de confianza, no tiene demasiada confianza, o no tiene nada de confianza?" (Scale from 1 to 4, where 4 indicates greater confidence.)

Linked Fate "¿Cree que lo que le ocurre en general a los hispanos y latinos en este país tendrá algo que ver con lo que le sucede a usted en su vida? ¿Le afectará mucho, algo, poco o nada?" (Scale from 1 to 4, where 4 indicates "a lot.")

C Language Quiz

In order to determine if subjects were minimally competent in both Spanish and English, we asked subjects to answer two quiz questions, one about "Maria" and a second about "Adam." Subjects were randomly assigned to see one question in English and the other in Spanish. The order of the answer choices was also randomized. Subjects were categorized as "bilingual" if they received a perfect score on this two-question quiz.

Spanish Quiz 1 Por favor lea el siguiente texto y conteste la pregunta. María es una estudiante de una universidad. Ella recibe ayuda financiera, pero la cantidad de dinero que recibe depende de la excelencia de sus calificaciones, por lo tanto, si reprueba una clase, ella recibe menos dinero para pagar su colegiatura. Esto le causa estrés, pero ella está disfrutando sus clases. ¿Cuál de las siguientes declaraciones es VERDADERA?

- María es una maestra
- A María no le gustan sus cursos
- María no recibe ayuda financiera y ella se está pagando la universidad
- María tiene que tener buenas calificaciones para conseguir mas dinero para pagar su colegiatura

English Quiz 1 Please read the text below and answer the question. Maria is a student at a university. She receives financial aid, but the amount of money she gets depends on the quality of her grades, so if she fails a class, she receives less money to pay her tuition. This causes her stress, but she is enjoying her classes. Which of the following statements is TRUE?

- Maria is a teacher
- Maria dislikes her courses
- Maria does not receive financial aid and is paying for university by herself
- Maria needs to have good grades to get more money to pay her tuition

Spanish Quiz 2 Por favor, lea el siguiente texto y conteste la pregunta. Adam es cajero en un centro comercial. Él es muy bueno para hacer operaciones matemáticas en su cabeza, por lo que generalmente calcula el total sin utilizar la computadora. Esto suele ser una forma rápida y eficiente de hacer el trabajo, pero a veces comete errores. ¿Cuál de las siguientes declaraciones es VERDADERA?

- Adam es el dueño de un centro comercial
- Adam es malo para cálculos matemáticos
- Adam siempre está cometiendo errores y, por lo tanto, tiene que usar la computadora

– Adam generalmente hace operaciones matemáticas en su cabeza y suele ser bastante bueno en ello

English Quiz 2 Please read the text below and answer the question. Adam is a cashier at a mall. He is very good at doing math in his head, so he often calculates the total without using the computer. This is usually a quick and efficient way of doing the job, but sometimes he makes mistakes. Which of the following statements is TRUE?

– Adam is the owner of a mall

– Adam is bad at mental math

– Adam is always making mistakes and so needs to use the computer

– Adam often does the math in his head and is usually quite good at it