

The Devil Knows Best: Experimental Effects of a Televised Soap Opera on Latino Attitudes Toward Government and Support for the 2010 U.S. Census

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Can a soap opera influence political attitudes and engagement among U.S. Latinos, particularly those perceiving a threat from immigration legislation? The extended contact hypothesis predicts that ingroup fictional characters can encourage positive affect and attitudes toward real-world groups and issues with which they are associated. We tested the impact of a Telemundo soap opera, Más Sabe El Diablo, which portrayed a Latino character's involvement with the 2010 Census. During the census-collection period and directly following the passage of Arizona's Senate Bill 1070 immigration act, we randomly assigned Latino participants in Arizona, Texas, and New Jersey to view (1) pro-census scenes or (2) control scenes featuring the character but not the census. Compared to control viewers, census viewers expressed more positive attitudes and less negative affect toward the U.S. government and more behavioral support for the census (wearing pro-census stickers and taking informational flyers). Affinity for the character was associated with stronger effects. The soap opera did not positively influence Arizona participants who were directly affected by SB 1070.

Introduction

Nativist legislation and political rhetoric targeting Latinos increases mistrust and blocks productive communication between U.S. government representatives

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and Latino communities. This is particularly true for Latino communities under the most direct threat from these developments. A recent example of this threat comes from the state of Arizona, where local politicians passed legislation requiring law-enforcement officers to check the immigration status of individuals about whom officers have reasonable suspicion of being in the United States illegally.

Events surrounding the 2010 U.S. Census revealed a significant level of mistrust in the Latino community toward the U.S. government. The Census Bureau actively sought the participation of Latinos, pointing out that previous undercounts had reduced the amount of federal funding provided to Latino communities. Prominent Latinos responded by organizing a boycott of the census. The boycott gained momentum from widespread rumors that immigration officials would use census data to improve the targeting of immigration raids (Romero, 2010).

The task of encouraging Latinos to participate in the census presented a Lewinian challenge to the Census Bureau. Kurt Lewin, the psychologist renowned for his field systems approach, designed behavior change interventions by identifying channels of influence that would meet the least resistance out of the entire set of influence channels shaping a group's behavior (Lewin, 1943/1997). Thus, the Bureau's challenge centered on the following question: Which influence channel could reach a large proportion of the community, and would have sufficient legitimacy with Latinos, given that community leaders were leading the boycott?

In 2009, the cable television network Telemundo stepped forward to offer one solution: to weave census participation messages into one of their popular nationally broadcast Spanish language soap operas, or *telenovelas*. Social psychologists have several theoretical and empirical reasons to predict that such an intervention could work. In particular, work based on the extended contact hypothesis predicts that fictional characters who are perceived to be ingroup members or "friends" can influence audience members' attitudes and behavior because the audience extends the positivity felt toward the characters to the people to whom the characters are connected (Cameron & Rutland, 2006).

The question of the current research is whether the *telenovela* intervention could succeed in the politically contentious context of the 2010 Census count, specifically by encouraging greater trust in the U.S. government and support for the census among Latino viewers. This research also tests whether viewers' liking and trust for the fictional story and characters helped the *telenovela* achieve these aims, and whether its effects were constrained by the direct threat posed by local immigration legislation.

Latinos and the 2010 Census Boycott: Perceived Threats to the Latino Community

Historically, the census has undercounted the Latino population living in the United States; for example, the 2000 Census undercounted Latinos by

approximately 1 million (Guzmán & McConnell, 2002). One of the major factors driving this undercount concerns logistics: until recently, census outreach was primarily in English, making it difficult for Spanish-speaking individuals to receive information about the census and to complete the form. A second factor concerns trust: Latinos' uncertainty about the use of census information (Lopez & Taylor, 2010) and anxiety felt toward government authorities (Lopez & Minushkin, 2008; Pew Hispanic Center, 2009; on undercounts see also Holden, 2009).

In 2010, Latino religious leaders called on the Latino community to boycott the census as a means to pressure the government into enacting immigration reform, and to express concern about the way that law enforcement officers have recently targeted Latinos (Sherman, 2009). Fueling the boycott were several factors that communicated a certain level of threat to the Latino community: rumors that the census would be used to help target future raids on undocumented immigrants (Romero, 2010), vitriolic national debates on immigration, and continuing immigration raids (in the past, raids were halted during the census period to encourage Latino participation; Ohlemacher, 2007).

We use the term "threat" in a manner consistent with the social psychological literature on group identity threat (Spencer & Aronson, 2002). This literature highlights the psychological and behavioral costs for individuals who realize that in a particular setting or domain they may be devalued, marginalized, or discriminated against on the basis of their perceived group identity. The Latino community of Arizona was particularly threatened in this manner during the 2010 Census period (March to July 2010) with the passage of legislation known as SB 1070, which many characterized as an authorization for law enforcement to profile Latinos. Even as the census boycott movement abated, many Latinos, and particularly those in Arizona, remained hesitant to interact with a government that they viewed as unsupportive, if not hostile.

Más Sabe El Diablo: *The Devil Knows Best*

Más Sabe El Diablo ("The Devil Knows Best," hereafter *Más Sabe*) is a Spanish language soap opera that aired weeknights on the Spanish broadcast network giant Telemundo between May 2009 and February 2010. The soap attracted approximately 1 million viewers each night (Montgomery, 2009). *Más Sabe* was set in New York City and revolved around a cast of characters, including Ángel, a career thief, and Perla, his friend. Ángel, recently released from prison, finds out that his ailing mother is indebted to a local crime boss. Despite his wishes to lead a clean life, Ángel agrees to a series of robberies to pay off his mother's debt. Ángel learns eventually that the criminal kingpin who ordered Ángel's murder is none other than his own father. The soap opera ends when Ángel enacts his

revenge on his father and along with the rest of his friends, looks forward to a happy, crime-free life.

According to an executive at the network (Alfredo Richard, personal communication, October 22, 2009), Telemundo frequently weaves messages about prosocial behavior into their soap opera storylines, with the goal of encouraging their viewers to consider adopting such behavior. In 2009, Telemundo independently launched a campaign to encourage Latinos to participate in the 2010 Census. To accompany this campaign (which included televised public service announcements and advertisements on their website), the network wrote a census storyline into the *Más Sabe* plot, involving the attractive and popular character Perla (Montgomery, 2009; Stelter, 2009).

The episode introducing the census storyline opened with Perla working at her father's empanada stand in the city. A Latino census recruiter buys an empanada, and when Perla inquires after his badge, he describes the census and his job working for the Census Bureau. In the ensuing storyline, Perla seeks out more information about the census and eventually gets a job as a door-to-door census recruiter for the Latino community. Writers for *Más Sabe* worked with staff of the Census Bureau to include crucial information about the census for their Latino viewers, including common misconceptions about the census and possible benefits to the Latino community from the census.

Behavior Change and Entertainment-Education Media

The *Más Sabe* census intervention follows a long and distinguished tradition of using popular media, soap operas, in particular, to target audience behavior, social norms, and attitudes regarding social, political, or economic issues. This genre of media intervention, called entertainment-education media, originated with Spanish language soaps, or *telenovelas*, through the work of Miguel Sabido, a Mexican television producer. Mexican entertainment-education soaps have been spectacular popular successes. The most famous example is *Simplemente María*, which is credited, through time series analysis, with encouraging thousands of Mexicans to sign up for literacy classes after its lead character María signs up for a class on the show (Singhal, Cody, Rogers, & Sabido, 2004).

The extended contact hypothesis provides one theoretical framework for understanding the effectiveness of *telenovela* interventions. According to the hypothesis, knowledge that an ingroup member has an outgroup friend can lead to a more positive attitude toward that outgroup. While the extended contact hypothesis was formulated to apply to real-world friendships, it has also been shown to apply to fictional characters. For example, fictional stories about English schoolchildren befriending disabled children increased English schoolchildren's positive affect for the disabled (Cameron & Rutland, 2006).

Field experiments have tested predictions about the influence of entertainment-education media in real-world situations. In a series of field experiments, Paluck (2009; 2010a; Paluck & Vexler, 2010) found that soap operas in postconflict settings promoted politically and socially sensitive behaviors and changed perceptions of the norms surrounding those behaviors, which included interethnic cooperation, civic volunteering, and corruption reporting. Two regression discontinuity studies comparing rural Brazilians with and without access to soap operas that featured women with less gender-traditional lifestyles showed that women exposed to the soaps were significantly less likely to have large numbers of children and were more likely to pursue divorce (Chong & LaFerrara, 2009; LaFerrara, Chong, & Duryea, 2008).

These studies provide rigorous evidence of the influence of fictional media on real-world behavior, but more evidence is necessary, both to show the effects of soap operas in different contexts, and to examine the individual and situational conditions under which these effects are most likely to take hold. In particular, there has been little research on potential limiting conditions of media influence, such as group-based political threat (cf. Paluck & Green, 2009). Additionally, the extended contact hypothesis has typically investigated whether positive regard extends to people and groups; researching whether positive regard can be extended from a character to a political group or institution would be an interesting contribution to this literature.

Hypotheses

We tested the effects of *Más Sabe* with a hybrid laboratory-field experiment in which we exposed Latino community members in Arizona, New Jersey, and Texas to scenes from *Más Sabe* featuring the character Perla. One condition featured scenes of Perla discussing and acting on behalf of the census, and another condition featured scenes of Perla discussing other topics and acting on behalf of other causes. We investigated whether Perla's census scenes could influence members of the U.S. Latino population to seek and trust information about and ultimately show their support for the 2010 Census and for the U.S. government. Although previous research suggests that it is possible, the formidable obstacles confronting *Más Sabe* included misinformation and fear of the 2010 Census and of the U.S. government, which was exacerbated in Arizona by the threat of SB 1070 posed to the Latino community.

Based on the popularity of *Más Sabe* and on the extended contact hypothesis, we predicted that Perla's positive involvement with the census would influence viewers' beliefs about, and attitudes and emotions toward, the census and the U.S. government. Perhaps even more importantly, we predicted that viewing Perla interact with the census could affect viewers' behavior, in terms of information

seeking and public support for census participation. We also tested the individual and situational factors that could facilitate or limit the influence of the soap. On an individual level, we used the extended contact hypothesis to predict that viewers' affinity (liking and trust) for the show and for Perla would magnify any gains in positive beliefs, attitudes, affect, and behavior toward the census and the U.S. government. On a situational level, we predicted that certain situational factors might constrain the soap opera's effect, namely the threat posed to viewers by their immediate political context. We predicted between-state differences, such that participants in Arizona would be less responsive to attempts to increase their trust in and engagement with the political sphere than participants outside of Arizona. This prediction is founded on the notion that the political climate in Arizona placed Latino residents under greater identity threat compared to Latinos living in the other states. We tested this prediction by conducting our experiment with viewers in Arizona in the immediate days following the passage of SB 1070, and comparing these effects to those gathered with participants in other states during the same time period.

Method

Participants

Spanish-speaking Latino adults from the general public ($N = 121$, 46% female) participated in the experiment. We recruited participants through English as Second-Language programs, Latino-community organizations, and religious organizations. The experiment took place in public buildings in New Jersey ($n = 60$), Arizona ($n = 42$), and Texas ($n = 19$). Participants' average age was 39 ($SD = 11.86$). The majority (88%) of participants were born outside of the United States, most (56%) originating from Mexico, 13% from Guatemala and 4% from Costa Rica. See Table 1 for full demographic information by state. We started data collection the day after the passing of SB 1070, which occurred during the height of the census data collection period.

Procedure

The experimenter presented the experiment as a study of attitudes and experiences of Latinos in the United States. The experimenter introduced himself as a university student and made no mention of any affiliation with or research interest in the 2010 Census. He then explained that participants would fill out a Spanish language paper survey, and would watch a 4-minute excerpt of a recent *telenovela*. Once participants gave informed consent, they began with the pretest. Participants were not paid for their time. At the end of the 30-minute procedure, they were fully debriefed and thanked.

Table 1. Mean Scores for Demographic Items by State

Measure	Arizona M	Texas M	New Jersey M	Total M
Time in U.S.	10.90 ^T (10.13)	35.63 ^{A,J} (17.39)	12.95 ^T (12.00)	15.80 (15.03)
Age	40.26 (8.61)	45.37 ^J (11.44)	36.16 ^T (13.26)	39.16 (11.86)
English proficiency	2.55 ^{T,J} (1.33)	5.16 ^A (2.03)	4.43 ^A (1.47)	3.89 (1.82)
Economic well-being	3.41 ^{T,J} (1.06)	5.50 ^{A,J} (1.50)	4.49 ^{A,T} (1.57)	4.26 (1.58)
American identity	3.56 ^{T,J} (1.48)	5.61 ^{A,J} (1.56)	4.35 ^{A,T} (1.62)	4.26 (1.69)
Identity with origin	5.35 ^T (.99)	6.69 ^{A,J} (.46)	5.67 ^T (1.26)	5.70 (1.16)
Latino identity	4.95 ^T (.79)	5.60 ^{A,J} (.40)	5.09 ^T (.66)	5.10 (.71)
N	60	19	42	121

Note. Age and time spent living in the United States are continuous measures of years; English proficiency is self-rated on a scale of 1 (*very bad*) to 7 (*very good*). Economic well-being is a self-rated “ladder” ranging from 1 (*poorest*) to 10 (*richest*). The identity items are self-reported scales from 1 (*highly disidentified*) to 7 (*highly identified*). The postscripts of A, T, and J represent a significant difference at the $p < .05$ level between Arizona, Texas, and New Jersey, respectively.

Pretest

Prior to the experiment, the pretest and the posttest that followed it were translated into Spanish from the originally English language items (some items were taken directly from Spanish language surveys, see below) and then back-translated to ensure translation fidelity.

Socio-demographic measures. Participants reported the country in which they were born, the number of years they had lived in the United States, and rated their ability to speak English using a 7-point Likert scale (1 = *very bad*, 7 = *very good*). Participants also rated their socio-economic status using an item adapted from the LatinoBarometer (2009): “Imagine a stair with 10 steps, in which on the first step are located the poorest and on the tenth step, the richest. Where would you put yourself on this staircase?”

Awareness of census. Two items gauged participants’ awareness of the census: “Do you know what the census is?” and “Do you know what the census asks?” Participants responded by marking yes, no, or not sure, and by writing an open-ended response to the second question regarding what exactly the census asked.

Identity. Participants reported their level of agreement with statements designed to capture their identity as Americans, as Latinos, and their identification with their country of origin (1 = *highly disagree*, 7 = *highly agree*). Three statements measuring American identity ($\alpha = .88$) read: “I think of myself as American,” “I have a strong sense of being American,” “I am proud of being American” (Phinney & Devich-Navarro, 1997). The statements measuring identification with the participants’ country of origin were identical, but referred to the participants’ country of origin ($\alpha = .81$). We measured Latino identity using the centrality and private regard subscales of the Multidimensional Inventory of Black Identity as adapted for use with Latinos (Sellers, Rowley, Chavous, Shelton, & Smith, 1997). Sample items include: “In general, being Latino(a) is an important part of how I see myself” and “I am happy to be Latino(a).” Relevant items reverse scored so that higher mean scores indicated greater Latino identity ($\alpha = .67$).

Soap opera manipulation. Upon completion of the pretest, the experimenter gave participants a laptop and headphones, and informed them that they would watch a short clip of *Más Sabe*. All participants were familiar with *telenovelas*, and only seven participants of the total sample had not heard of *Más Sabe*. We randomly assigned participants to watch one of two video clips. The census clip featured three pro-census scenes starring the character Perla. In the initial scene, a census recruiter visiting Perla’s empanada stand describes to her the requirements and responsibilities of a census recruiter and encourages her to apply for a census job. The second scene takes place in a census office where Perla turns in her application to be a recruiter. She and a census employee discuss how the census keeps all personal information confidential. In the final scene, Perla, now working for the census, reassures a Latino community member with doubts about the census. She explains how the census is safe for the undocumented, and how participating in the census can benefit Latino children.

The control clip featured three scenes of Perla taken from the same episodes as the census scenes, in which Perla wears exactly the same clothing and interacts with mostly the same people. However, in the control clip, Perla does not mention the census. The first scene at the empanada stand depicts Perla talking with her father about moving in with her boyfriend. Her father encourages her to be wise about the situation. In the second scene, Perla provides support to her boyfriend over the phone as he discusses the importance of his efforts to help Ángel. In the last scene, Perla reassures her mother, who is uneasy about Perla’s relationship with her boyfriend.

When editing the two clips for the experimental manipulation, we were limited by the fact that Perla appeared in a limited number of scenes that could be equilibrated to the census scenes in terms of mood, setting, costume, and interaction partners. We chose control scenes that best paralleled the census scenes along

those four dimensions. In addition, both clips have the same lighthearted mood and positive messages (helping the Latino community and helping family and community members to get along), and in both clips, Perla expresses concern for others, an optimistic outlook, and an animated conversational style. Both census and control clips were approximately 4-minutes long. After participants finished watching, the experimenter gave them the posttest survey.

Posttest. The posttest survey measured four classes of reactions to the soap opera clips: attitudes and affect toward the U.S. government, knowledge (awareness of and belief in facts) about the census, and affinity for *Más Sabe* and Perla. After the survey was completed, we measured participants' behavior.

Attitude toward U.S. government. Participants rated nine statements designed to measure their attitude toward the American government (1 = *highly disagree*, 7 = *highly agree*). The statements were translated from the Judicial Legitimacy Scale (Tyler, 1990) and taken from the Latino National Survey (2006). Sample items include, "I have a great deal of respect for the American government" and "I trust the American government to do what is right." The composite attitude score ($\alpha = .89$) represents mean responses across the nine items, with higher scores representing a more positive attitude toward the American government.

Affect toward the U.S. government. Participants rated the extent to which they feel various emotions when they think about the American government (1 = *very little*, 10 = *very strong*). Listed emotions included fear, anger, shame, nervousness, paranoia, happiness, reassurance, contentment, and pride. We calculated mean negative affect ($\alpha = .89$) and positive affect ($\alpha = .95$) scores.

Knowledge: awareness and belief. We measured participants' awareness of and belief in three census facts that Perla or other characters had discussed in the census clip. We first asked whether participants had "heard about" each fact, to gauge whether participants attended to the census clip. We next asked whether participants believed in each fact. Participants' response options were yes, no, and not sure. Specifically, we asked whether the participants had heard and whether they believed that the census (1) is confidential, (2) asks for citizenship status, and (3) is good for Latino children. We created composite awareness and a belief measures by summing across the three items and coding so that higher scores represent greater awareness or belief. The citizenship item for both composites depresses the interitem reliability; we report regression coefficients using the composite measures, and specify in the text how each item was influenced by the manipulation.

Affinity for Perla and Más Sabe. Three items measured participants' affinity for Perla and *Más Sabe* in the clip to which they were exposed. These items are: "I like Perla in the clip that I watched," "I like the clip of *Más Sabe* that I watched," "I trust Perla in the clip that I watched." Participants rated their agreement with these items (1 = *highly disagree*, 7 = *highly agree*). We calculated a mean affinity score ($\alpha = .89$) across all three items.

Previous viewership. Participants rated the frequency with which they viewed *Más Sabe* when it was on air (1 = *never*, 7 = *every day*), and if they did view, the extent to which they liked the show as a whole (1 = *very little*, 10 = *a lot*). Due to low response variability, we recoded self-reported viewership as a dichotomous variable of viewed and did not view.

Behavior

After they completed the survey, the experimenter took each participant aside individually and said, "Before you let me know what you think of the study, I wanted to know whether you are interested in getting more information about the 2010 U.S. Census. If you want to learn more, we have flyers in Spanish that you can take home with you." The experimenter later recorded whether or not participants took the flyer. We used this as a measure of information-seeking behavior about the census.

After participants took the flyer or did not, the experimenter said, "Also, we have two stickers for people who want to wear one of them. One sticker is to show support for the census, the other sticker is to show your pride about being Latino. Would you like to take a sticker and wear it to show your support for the census or for your Latino pride?" The stickers read "Be Counted" (a sticker endorsing census participation) and "Latino with Pride." We used the stickers as a measure of behavioral support for the census. The measure was a challenging test of census support, since (1) wearing a sticker is a public show of support and (2) we asked participants to choose between communicating positive feelings about Latinos or positive feelings toward a highly controversial topic, the census. The experimenter assured participants that they did not have to take a sticker, but interestingly, all participants chose between the two. The experimenter later recorded which sticker the participants took and whether participants put the sticker on their clothing.

Results

Analyses

We ran linear and logit regressions testing the main effect of the census versus control video, of the moderating effects of participants' affinity for *Más Sabe* and

Perla, and of the moderating effect of the threat posed by living in Arizona after the passage of SB 1070. Tables S1 through S4 in the online Appendix report each model separately, each of which includes controls for age, time spent in the United States, English proficiency, economic well-being, previous viewing of *Más Sabe*, and gender. All regression coefficients reported in the text include these controls. Because we found no regular patterns of association between our dependent variables and participants' ratings of their American, Latino, and country of origin identity, and because these identity variables correlated strongly with demographic variables already used in our regression models, we did not use self-rated identity as controls in these regressions (our experimental results do not change when these variables are used).

Background Characteristics

Table S1 reveals the mean ratings for all of our participant characteristics. Participants range from 19 to 85 years of age, have lived in the United States as little as less than 1 year up to their entire life (on average 13 years), rate their English ability on average in the middle of a scale from *very bad* to *very good*, and rate their economic status relative to others as a 4 on a scale where 1 is *poorest* and 10 is *richest*.

Participants were least likely to identify as Americans, rating themselves as neither in agreement nor disagreement with statements like "I consider myself American." They identified on average more strongly with a Latino group identity, indicating "somewhat" on the agreement scale. Participants identified most strongly, on average, with statements regarding their identity as members of their countries of origin. Table S1 indicates the significant differences among states in terms of socio-demographic background and self-rated language skills and identities.

Pretest awareness of census. Eighty-nine percent of all participants recognized the census. Awareness of the census is correlated with the amount of time participants have lived in the country: those who knew about the census have lived in the United States on average 18 years, those who were unsure, an average of 9 years. Participants also had a general idea of what the census asked—only 14% were not sure, and those who indicated they knew, explained further that the census "counted the U.S. population," typically not elaborating whether "population" included residents who were not citizens.

Previous viewership. Approximately 40% of our entire sample viewed one or more episodes of *Más Sabe* when it was on television, but on average they were not frequent viewers (the mean response corresponded to watching the show 3–10 times total). Those who viewed *Más Sabe* were on average older (41 vs. 38 years)

and have lived in the United States for fewer years (14 vs. 17 years). There was no difference in viewing patterns between census and control groups ($\beta = .043$, $SE = .38$, $p = .91$), and previous *Más Sabe* viewing does not moderate reactions to the census or control clips. Participants in the control and census groups who did watch the show when it was broadcast reported liking *Más Sabe* as a whole to the same extent, $M_{\text{control}} = 4.46$, $SE = .22$; and $M_{\text{census}} = 4.52$, $SE = .18$; $\beta = .06$, $SE = .29$; $p = .84$.

Affinity for Perla and Más Sabe. Participants in both groups reported the same level of affinity (liking and trust) for Perla in the clip they were shown, and for the clip as a whole ($M_{\text{control}} = 4.20$, $SE = .20$; and $M_{\text{census}} = 4.46$, $SE = .17$; $\beta = .25$, $SE = .26$; $p = .34$).

Attitude Toward Government

We found a positive effect of the census clip such that viewing the census storyline prompted more positive attitudes toward government ($M_{\text{control}} = 3.98$, $SD = .16$; $M_{\text{census}} = 4.45$, $SD = .17$; $\beta = .41$, $SE = .22$, $p = .06$). (See Table S1.) English proficiency is positively related to positive government regard, but it does not interact with the experimental treatment. Interestingly, time spent in the United States, age, and economic well-being are not significantly related to attitudes toward government in this multivariate regression.

Affinity for *Más Sabe* moderates the effect of the census storyline on attitude toward government, such that individuals who liked and trusted Perla and the show were significantly more likely to report positive regard for the U.S. government after watching the census clip compared to those who were lower in affinity, $\beta = .35$, $SE = .14$, $p = .017$ (see Table S1).

Affect Toward Government

Positive. We found no main effect of the census clip, and no moderating effect of affinity, on positive emotions toward the U.S. government, $M_{\text{control}} = 4.52$, $SD = .35$; $M_{\text{census}} = 4.77$, $SD = .36$; $\beta = .30$, $SE = .45$, $p = .51$.

Negative. The census clip significantly decreased reports of negative affect toward government, from $M_{\text{control}} = 4.36$, $SD = .26$, to $M_{\text{census}} = 3.42$, $SD = .30$, $\beta = -.91$, $SE = .40$, $p = .02$. We again find that affinity for *Más Sabe* moderates this main effect; those with a high affinity for *Más Sabe* and Perla were even less likely to report negative affect toward the government after watching the census clip than those with lower affinity $\beta = -.36$, $SE = .28$, $p = .19$ (see Table S2).

Knowledge About Census

Awareness of facts. Participants randomly assigned to the census clip reported “hearing” facts about the census to a greater extent than those assigned to control (reflecting that they did absorb the information presented in the clip), $M_{\text{control}} = 2.25$, $SE = .08$; $M_{\text{census}} = 2.66$, $SE = .01$; $\beta = .44$, $SE = .12$, $p = .00$. Regressions run on each item in the composite score revealed that all three items were affected by the census storyline.

Belief in facts. Participants exposed to the census clip also reported significantly greater belief in these facts, $M_{\text{control}} = 1.91$, $SE = .11$; and $M_{\text{census}} = 2.44$, $SE = .07$; $\beta = .50$, $SE = .14$, $p = .00$. Of the three items in this composite score, only the item asking whether the census was good for Latino children was not significantly affected. Affinity for the clip did not moderate the likelihood of reporting awareness of or belief in census facts after viewing the census clip. However, we do find that participants who had previously viewed *Más Sabe* are more likely to believe the census information when they are also exposed to the census clip, $\beta = .48$, $SE = .26$, $p = .07$. This suggests that frequency of exposure to the information is more strongly related to belief in that information compared to affinity for the show and character, a point to which we return in the discussion.

As Figure 1 indicates, among participants who watched the census clip, belief in facts about the census remains lower than awareness of these facts. However, the contrast between participants in the control and census conditions shows that the *Más Sabe* census storyline had a relatively stronger impact on belief than on awareness, and that belief in census facts remains very low among control participants. We would not expect to see a differentially greater effect on beliefs than on awareness, or evidence that some census condition participants continue to report mistrust in the facts, if we thought that participants were responding to census questions according to their perception of the experimenter’s desire to promote the census. We also view the significant but modest effect on belief as realistic evidence of a media effect, and in particular an effect of a media intervention that faced stiff contextual obstacles such as high baseline levels of mistrust and counteracting political influences (which we explore in more detail below).

Behavior

Taking a flyer. The census clip caused more information-seeking behavior in terms of taking a Spanish language flyer: 85% of census viewers versus 69% of control viewers took the flyer, $\beta = 1.03$, $SE = .54$, $p = .06$. This effect was significantly moderated by individual affinity for Perla and the show, $\beta = .71$, $SE = .41$, $p = .08$ (see Table S4). Interestingly, we observed an independent interaction

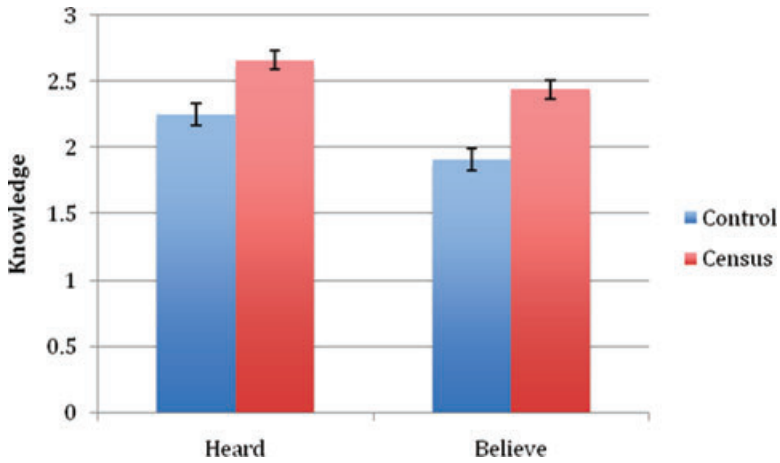


Fig. 1. Participants who watched the census clip express greater awareness and belief about census facts than participants who watched the control clip.

effect for previous *Más Sabe* viewership, such that participants who watched *Más Sabe* on television were also more likely to take the flyer after watching the census clip as opposed to the control clip, $\beta = 1.47$, $SE = 1.12$, $p = .19$.

Choosing a sticker. Given a choice between a Latino-pride and a census-support sticker, 64% of the census group and 50% of the control group chose the census sticker to wear. Eighty-nine percent of all participants, or 86 of the 97 people for whom we had observational data, immediately wore the sticker on their clothing, making this choice synonymous with a public show of support. (Due to a miscommunication, data were not collected on whether or not participants wore the sticker in Texas). The difference in choosing a census sticker over a Latino-pride sticker was significant at the $p = .1$ level, $\beta = .70$, $SE = .42$, see Figure 2. Neither affinity nor previous viewership moderated the main effect of the census clip on taking and wearing the census-support sticker (See Table S4.)

Threat

We compared Latino participants in Arizona, who participated in the study days after the passage of SB 1070, to Latino participants in New Jersey and Texas, who participated in the study at the same time but who were not experiencing a direct threat from their state governments. We expected between-state differences such that the effect of the census clip would be less strong for participants living in Arizona.

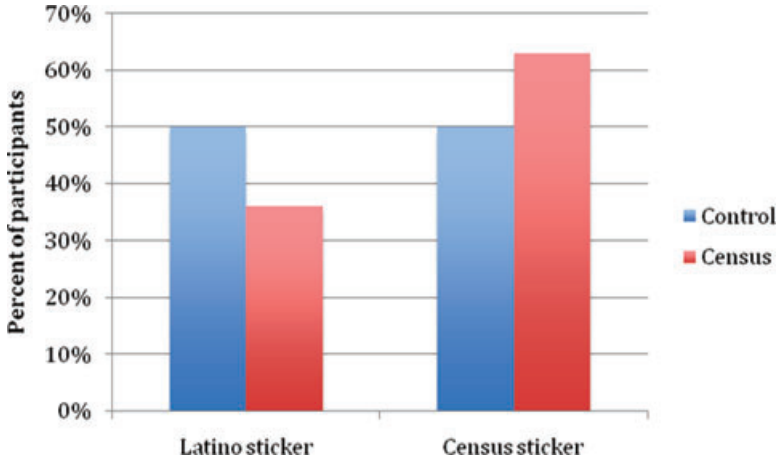


Fig. 2. Participants who watched the census clip are more likely to choose the census sticker over the Latino sticker than participants who watched the control clip.

We observed higher overall levels of negative affect toward the U.S. government and mistrust of the census among Latinos in Arizona compared to the two other states (attitudes toward government: $\beta = -1.54$, $SE = .28$, $p = .00$; belief in census facts: $\beta = -.57$, $SE = .22$, $p = .01$). Arizona residents' attitudes toward government did not differ according to which clip they viewed. In support of our hypothesis, we found significantly different affective reactions to the census clip in Arizona compared to participants in other states, such that the census clip caused participants in Arizona to report significantly *greater* negative affect toward the government compared to census clip viewers in other states ($\beta = 1.92$, $SE = .78$, $p = .02$). We did not find this interaction pattern for census awareness or beliefs.

We also found a paradoxical effect for census behavior among Arizona participants compared to Latinos from other states. Contrary to experimental findings in the rest of the sample, and to their own negative orientation toward the U.S. government and the census, Arizona participants chose the census sticker over the Latino-pride sticker in *both* the control and census conditions, to a significantly greater extent than participants from other states ($\beta = 2.36$, $SE = .76$, $p < .01$). One interpretation of this choice is that it reflects the perceived threat from the Arizona government toward any citizen appearing to be Latino. In this light, Arizona participants' choice might be understood not as support for the census, but as a choice to avoid the sticker identifying them as a Latino in a context where a Latino identity might invite attention from law enforcement. We suggest that this paradoxical behavioral effect could be evidence of the identity threat experienced by Arizona Latinos, and not as evidence of support for the census.

Discussion

Previous field experiments have found that soap operas used as entertainment-education media (Singhal, Cody, Rogers, & Sabido, 2004) have shifted important social and political behaviors (La Ferrara, Chong, & Duryea 2008; Paluck, 2009). This experiment is among the first to show that soap operas can affect significant attitudes and behavior in the U.S. context, where the media market is more crowded, and where audiences are arguably more wary of marketing and persuasion attempts. Our experimental test of the effects of a pro-census soap opera storyline among Latino residents of three different U.S. states revealed that the soap opera affected attitudes, emotions, and behavior toward the U.S. government and the 2010 Census. Compared to participants who watched the popular character Perla engage with everyday characters and topics, participants who watched Perla promote and discuss the census rated the U.S. government more positively, expressed less negative affect toward government, reported greater awareness of and belief in facts regarding the census, and sought information about and publicly demonstrated support for the census.

Participants' affinity (trust and liking) for Perla and for the *Más Sabe* clip positively moderated the show's influence, as did the participants' previous viewing experience, though for different outcomes. The more affinity participants felt, the more positive attitudes and less negative affect they expressed toward the U.S. government after watching the census clip. When they had previously viewed *Más Sabe*, participants who watched the census clip expressed even more belief in census facts and were more likely to take informational census flyers. We predicted the moderating effects of affinity based on previous research with the extended contact hypothesis, which suggested that affinity for fictional characters can transfer onto the types of people with whom the characters are involved, in the same way positive regard can transfer from real-world friendships onto other people (Cameron & Rutland, 2006; Wright, Aron, McLaughlin, & Ropp, 1997; see also Andersen & Chen, 2002). Our findings represent an interesting extension of previous research, in that positive regard for a fictional character also extended toward a political group and issue (the U.S. government and census).

We did not anticipate the pattern of moderating effects for previous *Más Sabe* viewing particularly contrasted with the pattern of moderating effects for participant affinity. Specifically, while affinity for the program seems to be more strongly related to affect and affect-laden attitudes, frequency of viewing is more strongly related to information and information-seeking behavior. The elaboration likelihood model anticipates these types of effects of repetition on message scrutiny and belief, if the message is strong (e.g., Petty & Cacioppo, 1989).

Our data collection across multiple states highlights a potentially important boundary condition for this kind of media effect. Latino participants residing in Arizona, the state that passed SB 1070, expressed more negative attitudes toward

government and lower belief in census facts compared to participants residing in Texas and New Jersey, regardless of condition. In some instances, residing in Arizona was associated with a reversal of the average census clip impact, from positive to negative. For example, participants in Arizona who watched the census clip expressed significantly greater negative affect toward the government compared to participants in Arizona who watched the control clip, and to participants from other states who watched the census clip. In addition, Arizona participants in both conditions chose to wear a census sticker, but one possible interpretation of this behavior is that they were avoiding the alternative “Latino with Pride” sticker. Alternatively, Arizona participants may have chosen the census sticker because they viewed it as an opportunity to temper the perceived threat to their identity by showing public support for a U.S. government initiative. (For other evidence of the limiting conditions of political context on media influence, see Paluck and Green, 2009). There were no between-state differences for participant absorption of census information, which suggests that participants were equally attentive to census information despite the differing levels of threat perceived by participants across states.

While there are many potential factors that may explain the between-state differences, we believe that perceived identity threat associated with the passing of SB 1070 is a strong candidate, in light of the fact that the study was conducted in the immediate aftermath of the legislation’s passing. It is also important to note that the between-state differences are robust to socio-demographic controls and multiple measures of Latino identity.

Limitations and Future Directions

In the present study, we did not directly measure Latino identity threat, which limits our ability to conclude that the differences between Arizona and the other two locations can be attributed to threat. It would also be important in future studies to measure the endurance of any perceived identity threat from legislation, and whether decreases in the salience of this threat would correspond with a stronger influence of a progovernment message from a soap opera. In general, we are limited in this study by a lack of longitudinal measures, including data on whether our participants ultimately sent their census forms to the Census Bureau.

Another limitation of the study is that our manipulation did not parallel the real-world experience of watching a soap opera, which unfolds over a much longer period of time and involves peer discussion, distraction, and greater emotional attachment to characters. In particular, social communication about the media messages could significantly boost the media program’s impact (Chwe, 2001; Higgins & Hardin, 1996; Kashima, 2000). Because the real-world conditions of watching a soap opera could theoretically accumulate over time and multiply from peer interactions, our one-shot experimental exposure findings might be

regarded as a conservative estimate of *Más Sabe*'s actual effect on Latinos. On the other hand, given that longer exposure to the show would be less concentrated on census messages, the present study may overestimate the program's impact. More naturalistic delivery of the soap opera in future studies can address this uncertainty.

Other theories of media and social learning, specifically Social Learning Theory (Bandura, 2004) and Narrative Transportation Theory (Green & Brock, 2000), supply important additional perspectives on why these types of interventions might be effective. In particular, they can help to test more precisely some of the mechanisms of the present research, such as why some people report more affinity for the character Perla, which moderates their response to the program. Narrative Transportation Theory, for example, might suggest that this is due in part to the vividness of the character, or the participant's ability to be transported by fiction. Future research on the impact of fictional media interventions should test the specific predictions made by these alternative theories.

Conclusion

The current research recalls some of Kurt Lewin's early research on channel factors that could influence food rationing during World War II. During that time, the U.S. government was seeking to increase citizens' use of government-sanctioned foods. Lewin's descriptive work focused on understanding all of the channels of influence that affected which foods were served at American dinner tables, and then experimenting with what he predicted to be the most potent influence channel on food choices that would also be met with the least resistance (Lewin, 1943/1997). This channel he identified was "housewives," and he proceeded to test different ways to convince them to use different kinds of foods. In a similar vein, we suggest that narrative entertainment media is a potent influence channel that is met by relatively less resistance compared to other channels. Social psychological theories explain that the potency of and the lack of resistance to influence from soap operas springs from their status as entertaining, liked, and trusted shows that are communally watched and discussed by members of a community—here, the U.S. Latino community.

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Supporting Information

Additional Supporting Information may be found in the online version of this article:

Table S1 Linear regression analyses predicting attitude toward the government

Table S2 Linear regression analyses predicting affect toward the U.S. government

Table S3 Logistic regression analyses predicting knowledge of facts about census

Table S4 Logistic regression analyses predicting behavior

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