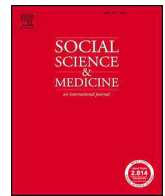




ELSEVIER

Contents lists available at ScienceDirect

Social Science & Medicine

journal homepage: www.elsevier.com/locate/socscimed

Words hurt: Political rhetoric, emotions/affect, and psychological well-being among Mexican-origin youth

Leo R. Chavez^{a,*}, Belinda Campos^b, Karina Corona^c, Daina Sanchez^d, Catherine Belyeu Ruiz^e

^a Professor, Department of Anthropology, University of California, 3151 Social Science Plaza, Irvine, CA 92697-5100, USA

^b Professor, Department of Chicano/Latino Studies, University of California, 3151 Social Science Plaza, Irvine, CA 92697-5100, USA

^c Graduate Student, Department of Psychology and Social Behavior, University of California, 4201 Social and Behavioral Sciences Gateway, Irvine, CA 92697-7085, USA

^d Graduate Student, Department of Anthropology, University of California, 3151 Social Science Plaza, Irvine, CA 92697-5100, USA

^e Undergraduate Research Assistant, Department of Anthropology, University of California, 3151 Social Science Plaza, Irvine, CA 92697-5100, USA

ARTICLE INFO

Keywords:

Psychological health and political rhetoric
Media representations and immigrants
Mexican-origin youth and political rhetoric
Emotions and political rhetoric
Subjective health
Perceived stress
Subjective well-being

ABSTRACT

We examined the effect of political rhetoric on the targets of that rhetoric. Drawing from scholarship on anti-Mexican and anti-immigrant rhetoric found readily in various media and scholarship on emotions, we tested four hypotheses. Hypotheses 1 and 2 predicted that positive and negative political rhetoric would increase and decrease positive and negative emotions, respectively. Hypotheses 3 and 4 then predicted that emotional responses to positive or negative political rhetoric would influence perceived stress, subjective health, and subjective well-being. Data collection occurred between August 2016 and June 2017 at a university in California. A sample of 280 Mexican-origin youth, defined broadly as having at least one ancestor born in Mexico or the participant themselves born in Mexico, participated in an experiment where they were randomly assigned to one of three study conditions: viewing (1) positive or (2) negative political rhetoric about immigrants and Latinos in general, or (3) neutral rhetoric as a control condition before providing qualitative responses to open-ended questions and completing measures of positive and negative affect, perceived stress, subjective health, and subjective well-being. Qualitative responses indicated that negative and positive political rhetoric elicited a range of negative emotions and positive emotions, respectively. Quantitative analysis with independent samples t-tests, ANOVA, and linear regression models found that negative political rhetoric elicited higher negative affect than positive and neutral rhetoric, and positive rhetoric elicited higher positive affect than negative and neutral rhetoric. Negative emotional responses, in turn, were associated with participants' higher perceived stress, lower subjective health and lower subjective well-being. Conversely, positive emotional responses were associated with lower perceived stress, higher subjective health, and higher subjective well-being. Positive political rhetoric, by eliciting positive emotions, can have a salubrious effect. Altogether, these findings suggest that political rhetoric matters for the targets of that rhetoric.

In June 2018, a White woman in Running Springs, California, approached Esteban Guzman, a U.S. citizen, and his mother who were gardening and told them to “go back to Mexico” and unleashed other anti-Mexican rants.

Guzman asked, “Why do you hate us?”

She replied, “Because you're Mexicans.”

He said, “We're honest people.”

The woman laughed, and said, “You're rapists, drug dealers. Even the President of the United States says you're a rapist.”

Guzman: “Thanks to him (Donald Trump) everywhere I go I am a

rapist, an animal, and drug dealer. You don't know what it feels like to be hated so much.”

[Sarah Mervosh \(2018\)](#).

1. Introduction

This article examines the experience of being a target of the hurtful rhetoric uttered so readily by some politicians and pundits, which has become so pervasive in the media. The 2016 U.S. presidential campaign was notable for its negative rhetoric directed at Mexicans, Muslims, and undocumented immigrants in general. Mexican-origin people, of whom

* Corresponding author. Department of Anthropology, University of California, 3151 Social Science Plaza, Irvine, CA 92697-5100.

E-mail addresses: lchavez@uci.edu (L.R. Chavez), bcampos@uci.edu (B. Campos), kcorona1@uci.edu (K. Corona), dainas@uci.edu (D. Sanchez), catherine.belyeu.ruiz@gmail.com (C.B. Ruiz).

<https://doi.org/10.1016/j.socscimed.2019.03.008>

Received 7 July 2018; Received in revised form 5 March 2019; Accepted 6 March 2019

Available online 11 March 2019

0277-9536/ © 2019 Elsevier Ltd. All rights reserved.

there were about 35.76 million residing in the United States in 2016 (USCB, 2018), were the direct targets of much of that rhetoric. How does the current political climate, with its pervasive xenophobia and discriminatory rhetoric, impact the psychological health and well-being of those it targets? Xenophobia is understood here as a form of attitudinal, affective, and behavioral prejudice toward immigrants and ethnic groups perceived as foreign (Higham, 2002 [1955]).

Political rhetoric as part of the social and cultural environment can elicit strong emotions. In 2016, the American Psychological Association conducted a survey to measure the stress caused by what it considered an intensely adversarial presidential election and its daily media coverage. The APA found that a majority (52%) of Americans reported that the election was a very or somewhat significant source of stress (APA, 2016). Such concerns were echoed by over 3000 mental health therapists, who signed a petition in 2016 declaring then candidate Donald Trump's incendiary rhetoric, with its scapegoating, xenophobia, intolerance, and sexism, to be a "threat to the well-being of the people we care for" (Sheehy, 2016).

Despite such observations, a neglected area of research is the mental health impact of the overall public discourse environment, especially anti-immigrant and anti-Mexican rhetoric. As Heide Castañeda and her colleagues have noted, "These factors are likely very important in the experiences and health outcomes of immigrants and should receive more research and political attention" (Castañeda et al., 2015, 384). Our research attempts to help fill this gap in knowledge by examining how Mexican-origin, defined broadly as having at least one ancestor born in Mexico or the participant themselves born in Mexico, college students respond emotionally to political rhetoric, and how those emotions then influence perceived stress, subjective health and subjective well-being.

2. Anti-Mexican rhetoric

Political rhetoric consists of speech acts and image acts that often rely on emotion-laden messages to "accuse, denounce and actually harm people. They can also flatter, promote, and benefit those same people" (Bakewell, 1998, 22; Bloch, 2016). Over the last 50 years, immigrants and their children have increasingly become the targets of negative media coverage in the United States (Chavez, 2001). Media representations of immigrants have fluctuated between affirming their place in a society that considers itself a "nation of immigrants," on the one hand, and viewing them as a threat to society, on the other hand. However, news media representations of immigrants have become more alarmist and less affirmative since the 1970s, with increasing discursive and visual allusions to floods, broken borders, over-population, crime, over-use of social services, and an alleged inability to integrate socially and culturally. In contrast, positive news media representations about immigration were common in the 1970s, but there were relatively fewer such affirmative stories in the 1980s and 1990s and beyond (Chavez, 2001; Massey and Pren, 2012; Massey & Sánchez R., 2012; Santa Ana, 2013).

Media representations of Mexican immigrants, and Latinos in general, have been consistently negative (Chavez, 2001; Massey & Sánchez R., 2012). Political rhetoric has represented Latinos as a threat to the nation, alleging inability to learn English and assimilate or acculturate, a propensity for crime, overuse of social services and medical care, high fertility rates, and high levels of immigration that supposedly fuel a demographic take-over, invasion, and re-conquest of American territory (Aguirre et al., 2011; Chavez, 2013; Coutin and Chock, 1995; Romero, 2011; Rumbaut, 2009; Santa Ana, 2002; Inda, 2000).

Decades of such negative rhetoric gave Donald Trump fertile ground to draw upon during his presidential campaign, which he began on June 16, 2015 by calling Mexican immigrants drug dealers, criminals, and rapists (TIME, 2015). Candidate Trump also targeted Americans of Mexican origin by using the term "anchor babies" and questioning the fairness of a judge because his parents were Mexican immigrants

(Chavez, 2017; Kim et al., 2017; Rappoport, 2015). Nor was he alone. For example, Steve King, Republican Representative from Iowa, suggested that Latino children are a threat to the nation's future: "Culture and demographics are our destiny. We can't restore our civilization with *somebody else's babies*" (Schleifer, 2017) [emphasis added]. This rhetoric drew a clear distinction between "us" (legitimate members of the nation) versus "them" (those who don't belong) that casts Latinos, especially those of Mexican-origin, as "others" whose belonging in the nation is questionable (Garcia, 2017).

Scholars have argued that media shapes our world and the way we live in it (Haynes et al., 2016; Tuchman, 1978; Zengotita, 2005). Research suggests that media representations of race and ethnic stereotypes influence issues of identity, perceptions of discrimination, and intergroup relations (Bleich et al., 2015, 857; Brader et al., 2008; Valentino et al., 2013). Less studied are the effects of inflammatory, and often hyperbolic, political rhetoric about immigration on the targets of that public discourse (Hatzenbuehler et al., 2016). "Regrettably, much less is known about the impact of exposure to unfavorable racial/ethnic media messages on racial/ethnic minority audiences themselves. Although theory would suggest that consuming negative images of one's in-group would have a harmful effect on self-concept, esteem, and intergroup perceptions, few empirical studies have explored this relationship" (Lacayo, 2017, 10).

Coverage on Latinos in news coverage of immigration often outpaces that of other groups, and increases ethnocentrism toward Latinos, who are represented stereotypically as despised out-group members and threats to the security of the larger society (Chavez, 2013; Cisneros, 2008; Dreby, 2015; Light and Iceland, 2016; Massey & Sánchez R., 2012; Ortiz, 2015). Repeated depictions, even those that stretch the truth, in public discourse can lead to internalization and acceptance of larger narratives as "true" (Cherwitz, 1980). Bondy and Pennington (2016, 1) observed that, "Representations as illegal immigrants, criminals, hypersexual, and/or refusing to learn English also shape ways of knowing about Latin@ youth for non-Latin@s, as well as influence our relationships with one another and our understanding of citizenship." Whites often make no distinctions among Latinos by national origin, status, or generation (Lacayo, 2017). The media representations so prevalent in anti-Latino rhetoric reinforce social attitudes toward Latinos in general, with little differentiation, as perpetual outsiders who are unable to assimilate.

When communications with hateful intent appear to be sanctioned by society by the frequent use of anti-immigrant and anti-Latino rhetoric in political discourse in the media, it can wound or hurt the targeted group in various ways, including having a negative effect on the targeted groups' health and well-being (Leets, 2002; Leets and Giles, 1999; Yakushko, 2009). For example, in a study of Asian American university students, Boeckmann and Liew (2002), 356 found that insulting speech that targets Asian Americans elicits extreme emotional responses and effects collective self-esteem. Building upon Boeckmann and Liew (2002), this study focuses on another ethnic group, Mexican-American university students, and their responses to both negative political rhetoric and positive political rhetoric to get a more complete sense of their emotional responses and to examine how those emotional responses influence perceived stress, subjective health status, and subjective well-being.

2.1. Emotions and political rhetoric

At least since Aristotle, theorists have been interested in human emotions as reflecting experiences with pain and/or pleasure (Pakaluk and Pearson, 2011). Our study continues this interest in emotions, or affect, defined as the conscious subjective aspect of an emotion considered apart from bodily changes (Russell, 2003). An early theory, the James-Lange theory of emotion, suggested that events and experiences stimulate emotional reactions (Cherry, 2017). Contemporary psychologists have been critical of early emotion theory, emphasizing the social

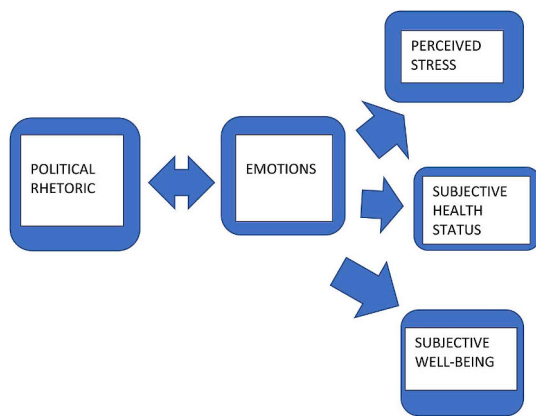


Fig. 1. Model of political rhetoric and emotions.

functions of emotion (Keltner and Haidt, 2001). We follow this latter approach, which is especially relevant in the context of the prevalence of media rhetoric on immigration (Cherry, 2018). Rather than providing an exhaustive review of the research on emotions, we follow Sara Ahmed's theoretical intervention, "So rather than asking 'What are emotions?', I will ask, 'What do emotions do?'" (Ahmed, 2004, 4).

Ahmed examined immigration-related discourse produced by hate groups in England and how those emotion-laden statements elicited bodily sensation. Building on this approach, we examine political rhetoric and how its targets respond emotionally and then, in turn, how these emotions affect perceptions of stress, subjective health and subjective well-being. Similar to Ahmed, we draw on both psychology and anthropology in our framing of emotions, stress, health and well-being. Anthropologists have long stressed the importance of the social and cultural environment on emotions (Beatty, 2014; Lutz, 1986; Lutz and White, 1986). The model we propose, as represented in Fig. 1, builds upon the interaction of emotions and the social/cultural environment. Political rhetoric disseminated so widely and so pervasively through media is part of our social and cultural environment. Exposure to political rhetoric can affect emotions, the valence of those emotions depending on the positive or negative messages conveyed by political rhetoric. Emotional responses to political rhetoric can, in turn, we hypothesize, influence its targets perceptions of stress, their subjective health, and their subjective well-being.

Stress, especially in relation to prejudice and discrimination, is increasingly considered a key factor affecting health (Chae et al., 2012; Garcini et al., 2017; Szaflarski and Bauldry, 2019). Or, as Karen L. Suyemoto and her co-authors (2017) put it, "We may feel fearful, anxious, hurt, threatened, or angry. We might 'check out,' withdraw, freeze, or confront the perpetrator with outrage or aggression. These are natural, automatic, human responses to potential threat" (Brown, 2015; Flores et al., 2010; Garcini et al., 2017; Gulbas and Zayas, 2017; Liu and Suyemoto, 2016).

Studies have found that immigration is a topic that elicits strong emotional responses (Suarez-Orozco, 1995). Recent research has found that the stress of growing up undocumented in the United States has been linked to emotional and mental health (Gonzales et al., 2013; Real, 2019). Similarly, Salas, Ayon and Gurola interviewed Mexican immigrant families in focus groups and found they expressed feelings of traumatization, powerlessness, and other mental health issues related to anti-immigrant sentiments and policies (Salas et al., 2013). Silvia Rodriguez Vega examined Mexican-American first and 1.5 generation children's drawings in Maricopa County, Arizona during a period of heightened apprehensions and deportations (Rodriguez Vega, 2018). The children's artistic expressions, Rodriguez Vega argued, reflect how anti-immigrant policies, rhetoric, and media representations affect the children's daily lives, and their emotional and physical well-being.

Our approach differs in that rather than a close reading of texts, or

having participants produce drawings or participate in focus groups, our study participants were shown statements and images reflecting current political rhetoric related to immigration and were asked to provide their written reactions. They then responded to questions about emotions, stress, subjective health, and subjective well-being. In addition to negative rhetoric, we included positive immigration-related political rhetoric as a way of examining the potential for positive rhetoric to favorably affect its targets (Zautra et al., 2005). Research suggests that positive emotions can lead to greater resilience to stress (Folkman and Moskowitz, 2000; Tugade and Fredrickson, 2004), increased physical health (Tugade et al., 2005; Veenhoven, 2008), and a greater sense of well-being (Fredrickson, 1998; Lyubomirsky et al., 2005). The advantage of our approach is that it focuses on emotion as mediating between political rhetoric and stress, health, and well-being.

3. The current study

We were interested in understanding the effects of political rhetoric on its targets' emotional responses, which in turn may affect their perceived stress, subjective health, and subjective well-being. The targets in this case were students of Mexican-origin in a public university in Southern California. We were interested in the emotions or affect elicited by negative rhetoric, which is the focus of much of the literature, and rightly so. We contribute to this concern by also examining positive rhetoric, that which complements and provides affirmative representations of immigrants and/or Latinos. We examined four hypotheses:

- H1 Political rhetoric, both visual and discursive, that negatively represents immigrants and Latinos will elicit higher negative emotions (affect) than positive and neutral representations.
- H2 Political rhetoric, both visual and discursive, that positively represents immigrants and Latinos will elicit higher positive emotions (affect) than negative and neutral representations.
- H3 Negative emotions (affect) will:
 - H3a increase stress compared to positive emotions;
 - H3b decrease subjective health compared to positive emotions;
 - H3c decrease subjective well-being compared to positive emotions.
- H4 Positive emotions (affect) will:
 - H4a decrease stress compared to negative emotions;
 - H4b increase subjective health compared to negative emotions;
 - H4c increase subjective well-being compared to negative emotions.

4. Research design

The study used a *three-group posttest-only randomized experimental design*. Participants in the groups in our study were randomly assigned, so "we can assume that the [three] groups are probabilistically equivalent to begin with and the pretest is not required" (Trochim, 2006). In the posttest only design we were interested in whether the three study groups were different after exposure to positive, negative, or neutral rhetoric. We used t-tests or one-way Analysis of Variance (ANOVA) to compare outcomes across these groups. In short, this design allowed for comparisons across conditions that directly tested whether it was the *rhetoric* or the act of general study participation that accounted for our findings. It has been noted that, "The posttest-only randomized experimental design is, despite its simple structure, one of the best research designs for assessing cause-effect relationships" (Trochim, 2006).

5. Methods and data collection

Data collection occurred between August 2016 and June 2017 at a large Southern California university, with 21.4 percent Mexican-

American students (OIR, 2018). Undergraduate students from across the campus were recruited through the university's research participant pool, most of whom received extra credit for their participation and a few preferring \$10 gift cards to the campus bookstore. The criteria for participation was to be of Mexican-origin. We limited the study to Mexican-origin youth because of the history of anti-Mexican political rhetoric.

The University of California, Irvine's Institutional Review Board approved all study material and procedures. Participants completed a 1-hour, online questionnaire administered in a lab using Qualtrics, an online survey platform. Informed consent was obtained via a study information sheet presented on the first page of the survey. Participants indicated their consent by continuing with the survey. Participants undertook the experiment in a lab administered by a research assistant who did not know the purpose or goals of the study.

The study successfully recruited a sample that consisted of 280 Mexican-origin undergraduates. However, participants are not a random sample drawn from the student population nor are they intended to be representative of general society. Demographic information on the university's students is provided below for comparison purposes. Rather, the power of our research design is the experimental method that allowed us to randomly assign participants to one of three study conditions that systematically varied in terms of the rhetoric presented and included a control condition.

5.1. Procedures

The 280 participants were randomly assigned to one of the three study conditions using the randomizer element in Qualtrics. Qualtrics randomly assigned participants to either view a control block of images/quotes (i.e. neutral) or an experimental block of images/quotes (i.e., positive or negative). Study Group A (N = 92) was shown two positive statements and two positive images about immigration, Study Group B (N = 95) was shown two negative statements and two negative images about immigration, and Study Group C (N = 93) was shown two neutral statements and images about the color of university buildings, a topic unrelated to immigration. The order of the images and statements within each block were randomized as well (Please see Appendix A for a description of the stimulus materials).

All participants were asked to respond to two open-ended questions about their reactions and feelings in response to the rhetoric. Upon finishing the open-ended responses, participants completed measures of Positive and Negative Affect (PANAS) (Watson et al., 1988), perceived stress (Cohen et al., 1983), subjective health (Manor et al., 2001), and subjective well-being (Pavot and Diener, 1993), followed by questions concerning sociodemographic characteristics, family migration and nativity, and use of news media.

5.2. Measures

A) All participants were asked to write their responses to the following two open-ended questions:

- What did you think as you read the quotes and saw the images?
- How did you feel as you read the quotes and saw the images?

B) All participants answered questions related to scales assessing:

Positive and Negative Affect Scale (PANAS). Participants reported on their positive and negative affect immediately after viewing positive, negative, or neutral rhetoric using the 20-item version of the Positive and Negative Affect Scale (PANAS) (Watson et al., 1988). This widely used measure provided an index of positive and negative emotions felt at a specific time; in this case the PANAS measured how participants felt after viewing the rhetoric to which they had been experimentally exposed. Participants used a Likert scale ranging from 1 (not at all) to 5 (extremely) to indicate their feelings at the moment of scale completion. Participants were told: "The words listed below describe different

feelings and emotions. Please indicate the extent to which you generally feel that way, that is, how you feel on the average." The question was repeated for each word." Words in the positive affect scale were interested, excited, enthusiastic, alert, strong, active, determined, attentive, proud, and inspired. Negative affect scale words were upset, embarrassed, distressed, angry, scared, hostile, irritable, guilty, afraid, and nervous. Reliability, as indexed by Cronbach's alpha coefficient ($\alpha = 0.86$), indicated a high level of consistency. Higher scores indicated higher levels of positive and negative affect, respectively.

Perceived Stress Scale (PSS). This 10-item scale measured subjective perceptions of stress in the past seven days (Cohen et al., 1983). This measure is widely used and has been previously validated in college and Mexican-origin samples (Ramírez and Hernández, 2007; Roberti et al., 2006). Participants were asked for each stress indicator: "In the last seven days, how often have you ..." followed by the ten stress items: "been upset because of something that happened unexpectedly?"; "felt you were unable to control the important things in your life?"; "felt nervous and stressed?"; "felt confident about your ability to handle your personal problems?"; "felt that things were going your way?"; "found that you could not cope with all the things you had to do?"; "been able to control irritations in your life?"; "felt you were on top of things?"; "been angered because of things that happened that were outside of your control?"; "felt difficulties were piling up so high that you could not overcome them?" Participants rated their perceived stress using 5-point Likert scales (1 = never; 2 = almost never; 3 = sometimes; 4 = fairly often; 5 = very often). After reversing scores for questions 4, 5, 7, and 8, higher scores reflect the perception that one's personal resources are overwhelmed. Reliability, as indexed by Cronbach's alpha coefficient ($\alpha = 0.89$), indicated a high level of internal consistency.

5.3. Subjective health

Two items were used to measure participants' perceptions of their health as compared to other people their age. The items were "How would you characterize your health?" and "Your health is ___ compared with others your age (and gender)?". Participants rated their health on a 5-point Likert-type scale (1 = poor; 5 = excellent). The items were averaged to create a scale score, where higher scores indicated higher subjective health. Self-reported health is known to be predictive of objective health outcomes such as mortality and specific health problems (Manor et al., 2001; McGee et al., 1999).

5.4. Subjective well-being scale (SWB)

This 5-item scale measures satisfaction with life (Pavot and Diener, 1993). Participants rated each item (e.g., "In most ways my life is close to ideal" and "The conditions of my life are excellent") on a 5-point scale (1 = strongly agree and 5 = strongly disagree). This measure is used in research in the U.S. and across the world (Diener et al., 2018). Reliability, as indexed by Cronbach's alpha coefficient ($\alpha = 0.83$), indicated a high level of consistency.

5.5. Short acculturation scale for Hispanics (SASH)

This 5-point scale is an effective measure of acculturation, especially among our targeted population (Marin et al., 1987). The five questions asked about language used at home as a child, language(s) spoken at home now, language usually thought in, language(s) spoken with friends, and language(s) spoken at work (e.g., In general, what language (s) do you read and speak?; What was the language(s) you used as a child?). Cronbach's alpha coefficient ($\alpha = 0.70$), was acceptable. Higher scores indicated greater acculturation to U.S. culture.

5.6. Perceived socioeconomic status

We examined perceived socioeconomic status using the MacArthur Scale of Subjective Social Status. Participants were asked to indicate their socioeconomic status relative to others in the United States using a visual method developed by Adler et al. (2000). This widely used measure asked participants to think of this ladder as having 10 steps: “representing where people stand in the United States. At the TOP of the ladder are the people who are the best off—those who have the most money, the most education, and the most respected jobs. At the BOTTOM (step 1) are the people who are the worst off—those who have the least money, least education, and the least respected jobs or no job. The higher up you are on this ladder, the closer you are to the people at the very top (step 10). The lower you are, the closer you are to the people at the very bottom. Where would you place yourself on this ladder, compared to all the other people in the United States? Please place a large “X” directly on the rung where you think you stand.” The social ladder provides a way of evaluating perceived socioeconomic status and has been validated for use among youth of various backgrounds (Goodman et al., 2008). This measure allows individuals to locate themselves in relevant social hierarchies where relative position may itself be a risk factor (Singh-Manoux et al., 2005).

In addition, participants provided information on their year in school, where they and their parents were born, family's migration history and education, their self-stated ethnic background, and time spent monitoring the news either on TV, print media, or internet and social media.

5.6.1. Data analysis plan

Open-ended responses were coded for words indicating emotional states, feelings, affect, attitudes, and opinions. Following Johnny Saldaña (2015), 4, “A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data.” Word frequencies were created using the MaxQda 2018 text management program. Since we are not generating hypotheses in this analysis, using word frequencies is appropriate to begin an analysis or contribute to an analysis of our hypotheses by indicating if the rhetoric elicited emotion-laden words (Bernard, 2002, 505). Quotes were chosen as “exemplars” of responses to the rhetoric because they contained one or more of the frequently used words and provided well-stated observations that show the word or words were used in context.

All descriptive and multivariable analyses were conducted using IBM SPSS, version 23. Chi-square tests were used to assess the probability of association or independence of the observed distribution between each social characteristic and the three experimental groups: positive rhetoric, negative rhetoric, and neutral rhetoric. Means were compared using independent samples *t*-test and ANOVA as appropriate. Linear regression analysis was used to examine five main outcome variables: mean responses to the Positive PANAS scale, the Negative PANAS scale, the Perceived Stress scale, subjective health scale, and subjective well-being scale. The experimental group variables were coded as follows: a) Positive Rhetoric (value = 1) and the referent group all other responses (value = 0); and b) Negative Rhetoric (value = 1) and the referent group all other responses (value = 0).

With 280 cases, and an approximate *N* = 90 in each study category, we kept the variables in the regressions to a minimum to avoid overfitting and under-powering the model. Regression analyses included the following control variables: gender, age categories, U.S.-born/foreign-born, perceived socioeconomic status, the short acculturation scale for Hispanics, and before and after the 2016 presidential election.

Although the November 8, 2016 presidential election was not the focus of this research project, data collection began before the election and continued after election day, which afforded us the opportunity to compare the outcomes of pre-election participants with post-election participants. While the timing of the election was serendipitous for this

study, at least one other study found that Trump's election was associated with significantly greater loss of attention control among first-generation Latina/o college students (Vasquez-Salgado et al., 2018). We include the election variable as a control variable in regression analyses (0 = on or before the date of the election, November 8, 2016; 1 after the election, November 8, 2016).

Of the 280 participants, 10 were not included in the regression analyses, including three participants who indicated “non-binary” to the gender question, which we left as missing rather than imposing a gender category, one missing value on the acculturation scale, and five missing values on the perceived socioeconomic status scale.

6. Preliminary results

6.1. Participants' characteristics

Table 1 presents the demographic characteristics of the 280 study participants. All the participants were of Mexican-origin. We did not select for gender, but 89.6 percent of the participants were female. Though high, there were more female Mexican-American undergraduate students (59%) than males (41%) at the university in 2017 and there is a pattern of gender imbalance that is frequently observed in campus-based studies (Dickinson et al., 2012; OIR, 2018).

Participants were college students with a mean age of 20.8, which is about the same as the mean age for Mexican-American undergraduates (mean 20.6) at the university in 2017 (OIR, 2018). Most participants were not married (95%). Their sources for news and current events were mainly online (80%) through the internet and social media, which they checked regularly.

About three-quarters (78.2%) of the participants were born in the United States. A high proportion of Mexican-American students on campus were also U.S.-born (92% in 2017) compared to the 67.7 percent of Mexican-Americans born in the United States generally in 2016 (OIR, 2018; USCB, 2018). Of the 61 foreign-born participants, most (82%) were of the 1.5 generation, that is, they came to the United States as children (14 years old or younger).

Participants overwhelmingly lived in families close to the immigrant experience, with most having at least one parent being foreign-born and with the Spanish language a part of their lives. The Short Acculturation Scale for Hispanics mean score (3.5 out of 5) reflected their bicultural lives and the transnational nature of their families. These patterns of language, culture, and family composition are similar to Mexican-Americans generally (Gonzalez-Barrera and Lopez, 2013). The participants' family dynamics, the likelihood they lived in families of mixed immigration status, would add to their interest in immigration-related political rhetoric, and be a source of concern given increasingly harsh immigration, detention, and deportation policies.

Participants generally indicated they were just below the middle of the perceived socioeconomic status scale (mean 4.8 out of 10). This corresponds with the proportion university's Mexican-American students (56.2%) who were low-income in 2017, and the U.S. Census 2015, 2016 income data, which indicated that Mexican-American family households' income was about 54.8 percent of all U.S. family households (Gomel and Zamora, 2007; OIR, 2018; Semega et al., 2018).

Despite random assignment of participants in the study conditions, males and females, and U.S.-born were not equally distributed among the three experimental groups, thus we include these variables as control variables in regression analyses. Having parents or grandparents who speak Spanish also was not equally distributed among the three experimental groups, but this variable was not included in regression analyses because language use is included in the SASH index.

There were significant differences in the PANAS positive emotion and PANAS negative emotion scales across the three study groups, which are discussed below under hypothesis testing.

Table 1
Social characteristics of participants, percentages and means. N = 280).

Social Characteristics	Positive Rhetoric N = 92%	Negative Rhetoric N = 95%	Neutral Rhetoric N = 93%	All Participants N = 280%
Nativity ^a				
U.S.-born	69.6	81.1	83.9	78.2*
Foreign-born	30.4	18.9	16.1	21.8
Gender ^a				
Female	72.8	76.8	89.2	89.6*
Male	25.0	22.1	10.8	9.3
Other (missing)	2.2	1.1	0.0	1.1
Age - Mean (SD)	20.9 (4.29)	20.5 (2.57)	20.9 (3.03)	20.8 (3.36)
Age categories ^a				
18–19	33.7	37.9	33.3	35.0
20–21	41.3	40.0	43.0	41.4
22–23	16.3	14.7	10.0	13.9
24+	8.7	7.4	12.9	9.6
Year in college				
1 st year	17.4	20.0	21.5	19.6
2 nd year	20.7	25.3	19.4	21.8
3 rd year	30.4	26.3	34.4	30.4
4 th year +	31.5	28.4	24.7	28.2
Marital status				
Single	97.8	93.7	93.5	95.0
Other	2.2	6.3	6.5	5.0
Parent 1				
Foreign-born	85.9	92.6	89.2	89.3
Don't know	0	0	1.1	0.4
Parent 2				
Foreign-born	12.0	12.6	8.6	11.1
Don't know	0	0	3.2	1.1
Parents or Grandparents speak Spanish				
Yes	87.0	96.8	97.8	93.9**
Participant speaks Spanish				
Yes	96.7	95.8	95.7	96.1
How Participants Access News Coverage				
Newspaper/TV/radio	10.9	15.8	8.6	11.8
Online	80.4	80.0	79.6	80.0
Family/friends/other	8.7	4.2	11.3	8.2
How often check the news?				
Never	1.1	2.1	1.1	1.4
Not very often	15.2	10.5	20.4	15.4
Once a week	12.0	6.3	10.8	9.6
Every couple of days	38.0	50.5	38.7	42.5
Multiple times a day	33.7	30.5	29.0	31.1
Participated after 2016 election ^a	83.7	83.2	82.8	83.2
Perceived socioeconomic status (10-point scale) ^a	4.8 (1.54)	4.8 (1.48)	4.8 (1.53)	4.8 (1.51)
Mean (SD)				
Short acculturation scale for Hispanics (5-point scale) ^a	3.4 (0.69)	3.5 (0.68)	3.5 (0.60)	3.5 (0.66)
Mean (SD)				
PANAS positive emotion	3.71 (0.79)	3.36 (0.86)	3.18 (0.78)	3.42 ^{***} (0.82)
PANAS negative emotion	1.87 (0.76)	2.26 (0.79)	1.98 (0.71)	2.02 ^{**} (0.79)

P values calculated using chi-square test or ANOVA across all response categories.

Chi-square *p = < 0.5; *p = < 0.01; ***p = < 0.001.

One-way ANOVA ^p = < 0.5; ^p = < 0.01; ^^^p = < 0.001.

^a Independent variables in regression analyses.

6.2. Preliminary analysis: political rhetoric and emotions

We first examined whether or not positive, negative, and neutral rhetoric elicited emotional responses from the participants. Table 2 summarizes the most frequent emotion-laden words by each type of rhetoric. A clear pattern emerges in the emotions elicited. Participants exposed to negative rhetoric most frequently used words such as racism/racism, stereotype, sad, angry, upset, ignorant, offended/offensive, unfair, hate, discrimination, and hurt. For example, a 24-year-old Mexican-American woman who viewed negative rhetoric said:

“Anger, rage, frustration, impotence are just some of the words that come to mind, but I have so much to say that I am not able to properly articulate what I am trying to say, much less express myself in a healthy manner. These types of aggressions are not new to me, so I know what it’s like to have these words and images being shouted at you, and making you feel out of place, ashamed and inferior, even though you

were born in the U.S.”

Her comment vividly describes the experience of despair and alienation that Americans of Mexican background can feel after reading and viewing negative rhetoric.

Participants who viewed positive rhetoric used words such as proud, contribute, good, happy, community, benefit, work, success, empower, and help. For example, this 19-year-old woman who was born in the U.S. said:

“As I read the quotes and see the images, I think that individuals that come to America should be welcomed. Parents that are not citizens but have children that are US citizens encourage their children to be successful and make them proud and it is clearly shown. There is sufficient evidence that “immigrants” contribute to society and I believe that individuals should be more accepting of foreigners because they arrive to the U.S. with the goal to persevere and be successful. As a Mexican-American, I feel proud reading the quotes and seeing the

Table 2
Frequencies of key words in participants’ open-ended responses to rhetoric.

KEY WORDS	POSITIVE	NEGATIVE	NEUTRAL
	IMAGES	IMAGES	IMAGES
	N = 92%	N = 95%	N = 93%
Racist/racism	1.1	30.9	0
Stereotype	7.5	23.4	0
Sad	14.0	27.7	0
Angry	2.2	23.4	0
Upset	3.2	18.1	0
Ignorant/ignorance	4.3	21.3	0
True	5.4	16.0	15.1
Offen(ed)(sive)	0	21.3	0
Unfair	1.1	13.8	0
Anger	2.2	12.8	0
Bad (feel)	6.5	11.7	0
Hate	1.1	9.6	0
Discrimination	2.2	9.6	0
Hurt	4.3	9.6	0
Proud	55.0	5.3	1.1
Contribute	35.5	3.2	0
Good	26.9	5.3	3.2
Happy	3.1	0	4.3
Community	20.4	8.5	0
Benefit	20.4	5.3	2.2
Work	17.2	22.3	0
Success	16.1	2.1	0
Empower	12.9	0	0
Give	4.3	11.7	3.2
Help	11.8	4.3	6.5
Prove	10.8	4.3	0
Neutral	0	0	33.3
Soothing	0	0	25.8
Relax	0	0	23.7
Calm	0	0	21.5

Percentage of participants using a key word at least once.

images. I feel very emotional because in the present-day individuals discriminate not only against immigrants but their children. I am glad to see that we are contributing to society and I wish Americans could see that. I wish that they can see we are not harming “their” country; we are helping it grow.”

Participants who viewed positive or negative rhetoric sometimes used similar words frequently, such as work and sad. However, their use of these words differed by context. Take “work” for example. In response to positive rhetoric, participants pointed to work as evidence of their positive values and contributions to America:

“I, myself, came to this country undocumented. My parents were honest, hardworking people but needed to provide a better life for us, their children. It was the best thing that happened to us. Most of my brothers and sisters are professionals, US citizens and making this country great!”

In response to the negative rhetoric, “work” is often used in a positive way to counter negative opinions. For example:

“I did feel slightly offended because I am Mexican and basically according to the quotes and images, I do not deserve to be called an “American” because my parents had me here. I also feel slightly angry and frustrated at whoever said those quotes and created those images ... I want to snap back and show them all of the hardworking families who work long hours for minimal pay in order to support their families and the young people who want to strive for a better future and go to college but are denied that access because they are not American.”

As these quotes indicate, participants often took negative political rhetoric as a personal affront and as an attack on themselves and their families. Their responses showed their indignation and hurt feelings. Their responses to positive rhetoric, on the other hand, were

emotionally affirming.

Neutral statements and images did not elicit emotionally-laden words similar to the positive and negative rhetoric. In fact, participants mostly re-stated information from the prompts, with words such as neutral, soothing, relaxing, and calm. The neutral rhetoric was about as stimulating as watching paint dry, which was, of course, the objective.

Participants’ commentaries on the rhetoric they viewed provides *prima facie* evidence in support of Hypotheses 1 and 2, that positive and negative political rhetoric will elicit positive and negative emotions, respectively.

7. Hypotheses testing

Hypotheses 1 and 2 predict the influence of political rhetoric on emotions. We used the Positive and Negative Affect Scale (PANAS) as the dependent variable to formally examine Hypotheses 1 and 2. First, the distribution of each predictor variable was examined for outliers and normality among positive, negative, and neutral groups. Then means, standard deviations, and intercorrelation matrices for all variables used in the regression were examined. There were no high inter-correlations among the control variables. Skewness and kurtosis were under 1 for all variables in the regressions, indicating no problems with normality, except for gender and foreign/U.S.-born, both of which had kurtosis scores under 1 but skewness over 1 because there were more females than males and more U.S-born than foreign-born in the sample. Table 3 presents the correlation matrix for the dependent variables used in the regression models.

We then examined the mean differences for positive and negative PANAS scales by positive political rhetoric (n = 92), negative political rhetoric (n = 95), and neutral rhetoric (93) groups. One-way ANOVA found a statistically significant difference between groups for both positive (F = 10.39; p < 0.001) and negative PANAS (F = 6.18; p < 0.01) scales. A Tukey post hoc test revealed that PANAS positive emotion was significantly higher after participants viewed positive rhetoric (p < 0.01) and neutral rhetoric (p < 0.001) compared to negative rhetoric. PANAS positive emotion was significantly lower after participants viewed negative rhetoric (p < 0.01) compared to positive rhetoric.

Another one-way ANOVA also found that PANAS negative emotion was significantly lower when participants viewed positive rhetoric (p < 0.01) and neutral rhetoric (p < 0.05) compared to negative rhetoric. On the other hand, PANAS negative emotion was significant higher after participants viewed negative rhetoric (p < 0.01) compared to positive and neutral rhetoric.

We tested the effect of political rhetoric on emotions (Hypotheses 1 and 2) using linear regression analyses. Table 4 presents coefficients for the independent variables with positive PANAS and negative PANAS as dependent variables. As Model 1 indicates, in comparison to exposure to negative and neutral rhetoric, exposure to positive rhetoric was associated with greater positive affect (b = 0.48, p < 0.001). Similarly, Model 2 indicates that in comparison to exposure to positive and neutral rhetoric, exposure to negative political rhetoric was associated with higher negative affect (b = 0.27, p < 0.05).

Greater acculturation was significantly associated with lower

Table 3
Means, standard deviations, and intercorrelation matrices (N = 280).

Variable	M	SD	1	2	3	4	5
1 Positive PANAS	3.42	0.82					
2 Negative PANAS	2.04	0.79	.08				
3 Perceived Stress	3.00	0.70	-.19**	.50**			
4 Subjective Health	3.24	0.95	.27**	-.29**	-.39**		
5 Subjective Well-Being	4.52	1.22	.28**	-.28**	-.55**	.33**	

*p = < 0.05 **p < 0.01. ***p < 0.001.

Table 4
Effect of positive, negative, and neutral rhetoric on positive PANAS and negative PANAS (n = 270).

Parameter	Positive PANAS Model 1	Negative PANAS Model 2a
	<i>b</i> coefficient	<i>b</i> coefficient
	(SD)	(SD)
Females Ref: Males	0.01 (0.12)	- 0.03 (0.12)
Age	0.09 (0.05)	- 0.17 (0.05)**
Perceived Socio-economic Status	0.07 (0.03)*	- 0.05 (0.03)
U.S.-born Ref: Foreign-born	- 0.18 (0.12)	- 0.13 (0.12)
Short Acculturation Scale for Hispanics	- 0.16 (0.08)*	0.01 (0.07)
Post 2016 presidential Election Ref: Election day and earlier	- 0.11 (0.13)	0.19 (0.12)
Positive Rhetoric Ref: All other responses	0.48 (0.12)***	- 0.09 (0.12)
Negative Rhetoric Ref: All other responses	0.20 (0.12)	0.27 (0.11)*
Constant	3.50 (0.35)***	2.49 (0.34)***

p* < 0.05. ** *p* < 0.01. * *p* < 0.001.

positive affect in Model 1 ($b = -0.16$, $p < 0.05$). This finding corresponds with research that finds that more acculturated Latinos are more aware of discrimination than less acculturated Latinos (NPR et al., 2017). Higher perceived socioeconomic status was associated with higher positive affect ($b = 0.07$, $p < 0.05$) compared to those of lower socioeconomic status. Having higher socioeconomic status may mean more positive emotions overall, a finding which corresponds with higher socioeconomic status also being associated higher subjective well-being in Table 5. Getting older was associated with lower PANAS negative affect ($b = -0.17$, $p < 0.01$).

Linear regression results support Hypotheses 1 and 2, that positive and negative political rhetoric affects emotions. Regression analyses found that positive political rhetoric is significantly associated with higher positive emotions and negative political rhetoric is significantly associated with higher negative emotions. The next step in the analysis examined Hypotheses 3 and 4, which posit that the respondents' negative and positive emotions/affect after viewing political rhetoric will influence their perceived stress, subjective health, and subjective well-being.

Table 5 presents coefficients for the independent variables with perceived stress, subjective health, and subjective well-being as dependent variables (Hypotheses 3 and 4). The participants' PANAS negative emotion was associated with significantly higher perceived stress ($b = 0.44$, $p < 0.001$), lower perceived health ($b = -0.36$, $p < 0.001$), and lower subjective well-being ($b = -0.39$, $p < 0.001$). These findings support Hypothesis 3, that negative emotions (affect) will (H3a) increase stress compared to positive emotions; (H3b) decrease subjective health compared to positive emotions; and (H3c) decrease subjective well-being compared to positive emotions.

Table 5
Effect of positive and negative PANAS scales on perceived stress, subjective health, and subjective well-being (n = 270).

	Perceived Stress Model 1 b (SE)	Subjective Health Model 2 b (SE)	Subjective Well-Being Model 3 b (SE)
Females Ref: Males	0.13 (0.09)	- 0.25 (0.14)	0.28 (0.17)
Age	- 0.02 (0.04)	- 0.01 (0.06)	0.01 (0.08)
Perceived Socioeconomic Status	- 0.04 (0.02)	0.06 (0.04)	0.13 (0.05)**
U.S.-born Ref: Foreign-born	- 0.02 (0.09)	- 0.09 (0.13)	0.11 (0.17)
Short Acculturation Scale for Hispanics	- 0.03 (0.06)	0.01 (0.08)	- 0.09 (0.11)
After 2016 Presidential Election Ref: Election day or earlier	0.20 (0.10)*	- 0.19 (0.14)	- 0.43 (0.18)*
Positive PANAS	- 0.18 (0.05)***	0.30 (0.07)***	0.39 (0.09)***
Negative PANAS	0.44 (0.05)***	- 0.36 (0.07)***	- 0.39 (0.09)***
Constant	2.94 (0.31)***	2.86 (0.46)***	4.00 (0.58)***

p* < 0.05. ** *p* < 0.01. * *p* < 0.001.

The participants' PANAS positive emotion was significantly associated with lower perceived stress ($b = -0.18$, $p < 0.001$), higher subjective health ($b = 0.30$, $p < 0.001$), and higher subjective well-being ($b = 0.39$, $p < 0.001$). These findings support Hypothesis 4, that positive emotions (affect) will (H4a) decrease stress compared to negative emotions; (H4b) increase subjective health compared to negative emotions; and (H4c) increase subjective well-being compared to positive emotions.

In addition, higher perceived socioeconomic status was significantly associated with greater subjective well-being ($b = 0.13$, $p < 0.01$). Also, those participating in the study after the 2016 election of Donald Trump had higher perceived stress ($b = 0.20$, $p < 0.05$) and lower subjective well-being ($b = -0.43$, $p < 0.05$) than those who participated in the study prior to the election of Donald Trump.

8. Discussion

Heightened anti-immigrant and anti-Latino political rhetoric over the last few years led us to investigate the effect of this rhetoric on its targets, in this case Americans of Mexican-origin. We compared negative political rhetoric with positive political rhetoric, and neutral rhetoric (as a control), the latter on the topic of the color of university buildings. Our goal was to contribute to a gap in the scholarship on the effects of political rhetoric, especially as experienced through the media, on the emotional or affective perceptions of those it targets. We were also interested in political rhetoric's effect on perceived stress, health and well-being, which were highlighted as requiring additional research in our review of scholarship. This analysis extends previous research showing how political rhetoric affects emotions, which in turn influence stress, subjective health, and subjective well-being (Gonzales et al., 2013; Rodriguez Vega, 2018; Salas et al., 2013).

Qualitative responses underscored the power of rhetoric to elicit emotional sentiments, feelings, and opinions. Participants responded strongly to both positive and negative political rhetoric, with a clear set of emotion-laden key words frequently presented in their responses. Mexican-origin youth perceived negative rhetoric as hurtful and untrue representations of themselves and their families. Participants perceived positive political rhetoric as affirming their understanding of personal and familial values as part of the community and as contributing members of society.

Regression analyses supported Hypotheses 1 and 2. Negative political rhetoric elicited lower positive and higher negative affect than positive and neutral rhetoric. Positive political rhetoric elicited higher positive affect and lower negative affect than negative and neutral rhetoric. Hypotheses 3 and 4 were also supported by regression analyses. The participants' emotions, as reflected in the negative and positive PANAS scales, influenced how they perceived stress, their subjective view of their health and their subjective well-being.

Negative political rhetoric was associated with higher negative

emotions/affect which, in turn, was associated with increased perceptions of stress, and decreased subjective health, and subjective well-being (Hypothesis 3). These findings suggest that negative political rhetoric about immigrants and Mexican-origin people adversely affected the emotions and the mental health of the targets of the rhetoric. Such rhetoric elicits feelings of hurt, anger, distress, and anxiety. The findings also help explain the participants' higher perceived stress and lower subjective well-being after the 2016 presidential election.

These results also speak to issues raised in previous studies. For example, they support Yakushko's (2009) argument for the need to examine the detrimental influence of xenophobia on its targets. We did find a detrimental effect on the participants who experienced negative political rhetoric, which also supports the American Psychological Association's (2016) finding that incendiary political rhetoric poses a threat to the psychological health of its victims. And similar to Karen L. Suyemoto et al. (2017), we found negative political rhetoric can make its targets fearful, anxious, hurt, threatened, or angry. Whether or not political rhetoric reaches the level of hate speech, political rhetoric can construct its targets as threatening and dangerous as Cowan and Hodge (1996) argue. The targets of such speech, such as our participants, can experience elevated levels of anxiety and emotional distress (negative affect), which has consequences for their sense of well-being, supporting Boeckmann and Liew's (2002) and Leets' research (2002).

Importantly, positive political rhetoric elicited positive emotions, which in turn were associated with lower stress, higher subjective health, and higher subjective well-being (Hypothesis 4). These findings affirm the importance of studying both positive and negative political rhetoric and support the research on the consequences of positive emotions (Folkman and Moskowitz, 2000; Tugade et al., 2005; Veenvhoven, 2008; Fredrickson, 1988; Lyubomirsky et al., 2005).

A limitation of this study was that it sampled one ethnic group. Although Mexican-origin people are a key focus of political rhetoric, a future study could examine these issues across a broader set of sample groups, including White Americans, Asian Americans, Middle Eastern Americans, Muslim Americans, and African Americans. Also, participants were university students whose reactions may or may not be the same as those of the general population. Our sample was also majority women and although we did not find a significant gender difference, we cannot know if the same pattern would have been observed if our sample included more men. Men often have their own distinct patterns of emotional responding and the work of Carlos Navarrete et al. (2010) suggests that men experience intergroup conflict differently than women. Future studies should also focus on men's experience with rhetoric. A future research direction would be a longitudinal test to examine the effects found here over time.

The 2016 election was not a part of the research design, which meant an ex post facto inclusion of a pre-election post-election variable resulted in an uneven distribution of participants in each category. The inclusion of the election as a control variable, while suggestive, is not meant to be a definitive.

The study's strengths include drawing from actual political rhetoric in the experimental design. Also, we used an experimental method that held many aspects of the rhetoric constant. Finally, we examined multiple aspects of well-being, including perceived stress and subjective health.

9. Conclusion

If our findings among Mexican-origin youth can serve as a guide, words do matter. In practical terms, how we speak about people in our public and political discourse affects how people view themselves and their mental states. Political rhetoric may inflame the public and result in votes or audiences for talk shows, but negative portrayals of particular groups question their belonging and legitimacy as full-fledged members of society. Being the targets of negative political rhetoric raises stress levels and negative feelings of oneself and the larger social environment. When words wound, they tear at the body of the nation,

creating divisions that reinforce systems of prejudice and inequality.

One the other hand, a final implication of this study is that moderating political rhetoric could have a salutatory effect not just on the targets of that rhetoric but for the nation as a whole. Rhetoric that is positive and affirming elicits positive feelings and emotions/affect, which in turn lowers stress and increases perceptions of health and well-being. Thus, positive rhetoric can be integrative, enhancing a sense of community and belonging, and easing stress about one's relationship to the larger society.

Acknowledgements

Funding for this research was provided by the UC Irvine School of Social Sciences' School Research Committee (CORCL). The authors would like to thank the anonymous reviewers for their generous comments and suggestions. We are also grateful to the School of Social Sciences for material support. Finally, we would like to thank Edward D. Lowe and Koji Chavez for their comments on earlier drafts of this paper.

Appendix A. Experiment Methods

Study Group A

Participants were randomly presented two positive statements and two positive images about immigration [See Kahan et al. (2016) for a study that also used visual and discursive stimuli.].

"Today, there are hundreds of thousands of students excelling in our schools who came as undocumented immigrant children. They were brought by their parents through no fault of their own. They grew up as Americans and pledge allegiance to our flag. They've lived a good life. They've proven themselves. They've beaten the odds. They are talented, responsible young people who could be staffing our research labs or starting a new business, and who could be further enriching this nation."

"Immigrants contribute to our society in a number of ways. Cities and neighborhoods with greater concentrations of immigrants have much lower rates of crime and violence than comparable nonimmigrant neighborhoods. Evidence also shows that immigrants contributed an estimated \$115.2 billion more to the Medicare Trust Fund than they took out in 2002–09. Undocumented immigrants nationally will add \$276 billion to social security over next 10 years but cost only \$33 billion."



SWEARING IN NEW CITIZENS



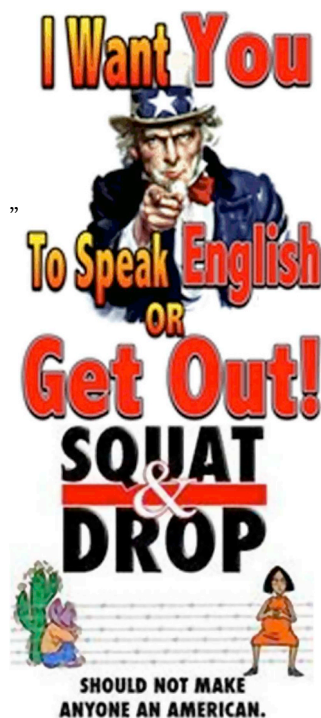
CHILDREN OF IMMIGRANTS IN ACTION

Study Group B

Participants were randomly presented two negative statements and two negative images about immigration.

“When Mexico sends its people, they're not sending their best. They're sending people that have lots of problems, and they're bringing those problems with them. They're bringing drugs. They're bringing crime. They're rapists. For every illegal alien raised in the United States who's a valedictorian, there's another 100 out there that weigh 130 pounds and they've got calves the size of cantaloupes because they're hauling 75 pounds of marijuana across the desert.”

“Each year, thousands of women enter the United States illegally to give birth, knowing that their child will thus have U.S. citizenship. Their children immediately qualify for a slew of federal, state, and local benefit programs and cost taxpayers millions of dollars. When the children turn 21, they can sponsor the immigration of other relatives, becoming “anchor babies” for an entire clan. So, these children may be citizens, but they don't deserve to be citizens.



Study Group C

Participants were randomly presented with two neutral statements and two neutral images about the colors of university buildings.

“The color of paint for university buildings is important for promoting a studious and yet friendly academic environment. People may not think a lot about the importance of the color of paint, but colors that are beige or another neutral tone are very soothing and work well on college campuses. Soothing colors are preferred on college campuses throughout the United States and these colors are also being used on college campuses in other countries now too.”

“College campuses throughout the country have similar architectural designs and styles, especially when it comes to the color of buildings. Typically, university buildings are designed to have neutral colors, such as the grey of cement, earth colors, and a variety of off-white colors that are often seen in natural environments. These colors are soothing and promote a relaxed social environment that is good for studying.”



References

- Adler, N.E., Apel, E., Castellazzo, G., Ickovics, J., 2000. Relationship of subjective and objective social status with psychological and physiological functioning: preliminary data in healthy white women. *Health Psychol.* 19, 586–592.
- Aguirre, A.J., Rodriguez, E., Simmers, J.K., 2011. The cultural production of Mexican identity in the United States: an examination of the Mexican threat narrative. *Soc. Ident.* 17, 695–707.
- Ahmed, S., 2004. *The Politics of Emotion*. Routledge, New York.
- APA, American Psychological Association, 2016. *APA Survey Reveals 2016 Presidential Election Source of Significant Stress for More than Half of Americans*. American Psychological Association, Washington, D.C.
- Bakewell, L., 1998. Image acts. *Am. Anthropol.* 100, 22–32.
- Beatty, A., 2014. Anthropology and emotion. *J. R. Anthropol. Inst.* 20, 545–563.
- Bernard, H.R., 2002. *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. Altamira Press, Walnut Creek.
- Bleich, E., Bloemraad, I., Graauw, E.d., 2015. Migrants, minorities and the media: information, representations and participation in the public sphere. *J. Ethn. Migr. Stud.* 41, 857–873.
- Bloch, K.R., 2016. “It is just SICKENING”: emotions and discourse in an anti-immigrant discussion forum. *Socio. Focus* 49, 257–270.
- Boeckmann, R.J., Liew, J., 2002. Hate speech: Asian American students' justice judgments and psychological responses. *J. Soc. Issues* 58, 363–381.
- Bondy, J.M., Pennington, L.K., 2016. Illegal aliens, criminals, and hypersexual spitfires: Latin@ youth and pedagogies of citizenship in media texts. *Soc. Stud.* 107, 1–13.
- Brader, T., Valentino, N.A., Suhay, E., 2008. What triggers public opposition to immigration? Anxiety, group cues, and immigration threat. *Am. J. Pol. Sci.* 52, 959–978.
- Brown, C.S., 2015. *The Educational, Psychological, and Social Impact of Discrimination*

- on the Immigrant Child. Migration Policy Institute, Washington, D.C.
- Castañeda, H., Holmes, S.M., Madrigal, D.S., Young, M.-E.D., Beyerle, N., Quesada, J., 2015. Immigration as a social determinant of health. *Annu. Rev. Public Health* 36.
- Chae, D.H., Nuru-Jeter, A.M., Adler, N., 2012. The association between racial discrimination and hypertension is moderated by implicit racial bias: a study of midlife African American men. *Psychosom. Med.* 74, 961–964.
- Chavez, L.R., 2001. *Covering Immigration: Popular Images and the Politics of the Nation*. University of California Press, Berkeley.
- Chavez, L.R., 2013. *The Latino Threat: Constructing Citizens, Immigrants, and the Nation*. Stanford University Press, Stanford.
- Chavez, L.R., 2017. *Anchor Babies and the Challenge of Birthright Citizenship*. Stanford University Press, Stanford, CA.
- Cherry, K., 2017. What is the James-Lange theory of emotion? VeryWellMind. <https://www.verywellmind.com/what-is-the-james-lange-theory-of-emotion-279530>.
- Cherry, K., 2018. Understanding the Cannon-Bard theory of emotion. VeryWellMind. <https://www.verywellmind.com/what-is-the-cannon-bard-theory-2794965>.
- Cherwitz, R.A., 1980. The contributory effect of rhetorical discourse: a study of language-in-use. *Q. J. Speech* 66, 33–50.
- Cisneros, J.D., 2008. Contaminated communities: the metaphor of “immigrant as pollutant” in media representations of immigration. *Rhetor. Publ. Aff.* 11, 569–602.
- Cohen, S., Kamarck, T., Mermelstein, R., 1983. A global measure of perceived stress. *J. Health Soc. Behav.* 24, 385–396.
- Coutin, S.B., Chock, P.P., 1995. Your friend, the illegal: definition and paradox in newspaper accounts of U.S. immigration reform. *Identities* 2, 123–148.
- Cowan, G., Hodge, C., 1996. Judgments of hate speech: the effects of target group, publicness, and behavioral responses of the target. *J. Appl. Soc. Psychol.* 26, 355–374.
- Dickinson, E.R., Adelson, J.L., Owen, J., 2012. Gender Balance, representativeness, and statistical power in sexuality research using undergraduate student samples. *Archives of Sexual Behavior*. Published online. <https://pdfs.semanticscholar.org/584a/8105a30e15751274021349357c4121d14e71.pdf>.
- Diener, E., Seligman, M.E.P., Choi, H., Oishi, S., 2018. Happiest people revisited: a worldwide examination. *Perspect. Psychol. Sci.* 13, 176–184.
- Dreby, J., 2015. *Everyday Illegal: when Policies Undermine Immigrant Families*. University of California Press, Berkeley.
- Flores, E., Tschann, J.M., Dimas, J.M., Pasch, L.A., Groat, C.I.d., 2010. Perceived racial/ethnic discrimination, posttraumatic stress symptoms and health risk behaviors among Mexican American adolescents. *J. Couns. Psychol.* 57, 264–273.
- Folkman, S., Moskowitz, J.T., 2000. Positive affect and the other side of coping. *Am. Psychol.* 55, 647–654.
- Fredrickson, B.L., 1998. What good are positive emotions? *Rev. Gen. Psychol.* 2, 300–319.
- Garcia, S.J., 2017. Racializing ‘illegality’: an intersectional approach to understanding how Mexican-origin Women navigate an anti-immigrant climate. *Sociology of Race and Ethnicity* 3, 474–490.
- Garcini, L.M., Pena, J.M., Gutierrez, A.P., Fagundes, C.P., Lemus, H., Lindsay, S., et al., 2017. “One scar too many:” the associations between traumatic events and psychological distress among undocumented Mexican immigrants. *J. Trauma. Stress* 30, 453–462.
- Gomel, J.N., Zamora, A., 2007. English- and Spanish-speaking Latina mothers’ beliefs about food, health, and mothering. *J. Immigr. Minority Health* 9, 359–367.
- Gonzales, R.G., Suarez-Orozco, C., Dedios-Sanguinetti, M.C., 2013. No place to belong: Contextualizing concepts of mental health among undocumented immigrant youth in the United States. *Am. Behav. Sci.* 57, 1174–1199.
- Gonzalez-Barrera, A., Lopez, M.H., 2013. *A Demographic Portrait of Mexican-Origin Hispanics in the United States*. Pew Research Center, Washington, D.C.
- Goodman, E., Huang, M., Schafer-Kalkhoff, T., Alder, N.E., 2008. Perceived socioeconomic status: a new type of identity which influences adolescents’ self rated health. *J. Adolesc. Health* 41, 479–487.
- Gulbas, L.E., Zayas, L.H., 2017. Exploring the effects of U.S. immigration enforcement on the well-being of citizen children in Mexican immigrant families. 3. *Russell Sage Foundation Journal of the Social Sciences*, pp. 53–69.
- Hatzenbuehler, M.I., Prins, S.J., Flake, M., Philbin, M., Frazer, M.S., Hagen, D., et al., 2016. Immigration policies and mental health morbidity among Latinos: a state-level analysis. *Soc. Sci. Med.* 174, 169–178.
- Haynes, C., Merolla, J., Ramakrishnan, S.K., 2016. *Framing Immigrants: New Coverage, Public Opinion, and Policy*. Russell Sage Foundation, New York.
- [1955]Higham, J., 2002. *Strangers in the Land: Patterns of American Nativism, 1860–1925*. Rutgers University Press, New Brunswick.
- Inda, J.X., 2000. Foreign Bodies: migrants, parasites, and the pathological nation. *Discourse. Journal for Theoretical Studies in Media and Culture* 22, 46–62.
- Kahan, D.M., Jamieson, K.H., Lundrum, A., Winneg, K., 2016. Culturally antagonistic memes and the Zika virus: an experimental test. *J. Risk Res.* 20, 1–40.
- Keltner, D., Haidt, J., 2001. Social functions of emotions. In: Mayne, T.J., Bonanno, G.A. (Eds.), *Emotions: Current Issues and Future Directions*. The Guilford Press, New York, pp. 192–213.
- Kim, J.K., Sagas, E., Cespedes, K., 2017. Gendering immigrant subjects: ‘anchor babies’ and the politics of birthright citizenship. *Soc. Ident.* 24, 312–326.
- Lacayo, C.O., 2017. Perpetual inferiority: whites’ racial ideology toward Latinos. *Sociology of Race and Ethnicity* 3, 566–579.
- Leets, L., 2002. Experiencing hate speech: perceptions and responses to anti-Semitism and antigay speech. *J. Soc. Issues* 58, 341–361.
- Leets, L., Giles, H., 1999. Harmful speech in intergroup encounters: an organizational framework for communication research. *Annals of the International Communication Association* 22, 91–137.
- Light, M.T., Iceland, J., 2016. The social context of racial boundary negotiations: segregation, hate crime, and Hispanic racial identification in metropolitan America. *Sociological Science* 3, 61–84.
- Liu, C.M., Suyemoto, K.L., 2016. The effects of racism related stress on Asian Americans: anxiety and depression among different generational statuses. *Asian American Journal of Psychology* 7, 137–146.
- Lutz, C., 1986. Emotion, thought, and estrangement: emotions as a cultural category. *Cult. Anthropol.* 1, 287–309.
- Lutz, C., White, G.M., 1986. The anthropology of emotions. *Annu. Rev. Anthropol.* 15, 405–436.
- Lyubomirsky, S., King, L.A., Diener, E., 2005. The benefits of frequent positive affect: does happiness lead to success? *Psychol. Bull.* 13, 803–855.
- Manor, O., Matthews, S., Power, C., 2001. Self-reported health and limiting longstanding illness: inter-relationships with morbidity in early adulthood. *Int. J. Epidemiol.* 30, 600–607.
- Marin, G., Sabogal, F., Marin, B.V., Otero-Sabogal, R., Perez-Stable, E.J., 1987. Development of a short acculturation scale for Hispanics. *Hisp. J. Behav. Sci.* 9, 183–205.
- Massey, D.S., Pren, K.A., 2012. Unintended consequences of US immigration policy: explaining the post-1965 surge from Latin America. *Popul. Dev. Rev.* 38, 1–29.
- Massey, D.S., Sánchez, R.M., 2012. *Brokered Boundaries: Creating Immigrant Identity in Anti-immigrant Times*. Russell Sage Foundation, New York.
- McGee, D.L., Liao, Y., Cao, G., Cooper, R.S., 1999. Self-reported health status and mortality in a multiethnic US cohort. *Am. J. Epidemiol.* 149, 41–46.
- Mervosh, S., 2018. “Why Do You Hate Us?” He Sked. Because You’re Mexicans, She Replied. *New York Times*.
- Navarrete, C.D., McDonald, M.M., Molina, L.E., Sidanius, J., 2010. Prejudice at the nexus of race and gender: an outgroup male target hypothesis. *J. Personal. Soc. Psychol.* 98, 933–945.
- NPR, Foundation, R.W.J., & Harvard T.H. Chan School of Public Health, 2017. *Discrimination in America: Experiences and Views of Latinos*. Robert Wood Johnson Foundation, Princeton, NJ.
- OIR, Office of Institutional Research, 2018. Enrollment. University of California, Irvine, Irvine, CA.
- Ortiz, M., 2015. Latinos’ perceptions of intergroup relations in the United States: the cultivation of group-based attitudes and beliefs from English- and Spanish-language television. *J. Soc. Issues* 71, 90–105.
- Pakaluk, M., Pearson, G. (Eds.), 2011. *Moral Psychology and Human Action in Aristotle*. Oxford University Press, New York, NY.
- Pavot, W., Diener, E., 1993. Review of the satisfaction with life scale (subjective well-being scale (SWB)). *Psychol. Assess.* 5, 164–172.
- Ramírez, M.T.G., Hernández, R.L., 2007. Factor structure of the perceived stress scale (PSS) in a sample from Mexico. *Spanish J. Psychol.* 10, 199–206.
- Rappeport, A., 2015. *Discussing Immigration, Donald Trump and Jeb Bush Use an Offensive Term*. The New York Times.
- Real, D.D., 2019. “They see us like trash”: how Mexican illegality stigma affects the psychological well-being of undocumented and US-born young adults of Mexican descent. In: Frank, R. (Ed.), *Immigration and Health (Advances in Medical Sociology)*. Emerald Publishing Limited, Bingley, UK, pp. 205–228.
- Roberti, J.W., Harrington, L.N., Storch, E.A., 2006. Further psychometric support for the 10-item version of the perceived stress scale. *J. Coll. Couns.* 9, 135–147.
- Rodriguez Vega, S., 2018. Borders and badges: Arizona’s children confront detention and deportation through art. *Lat. Stud.* 16, 310–340.
- Romero, M., 2011. Constructing Mexican immigrant women as a threat to American families. *International Journal of the Family* 37, 49–68.
- Rumbaut, R.G., 2009. Undocumented immigration and rates of crime and imprisonment: popular myths and empirical realities. In: Malina, M. (Ed.), *The Role of Local Policy: Striking a Balance between Immigration Enforcement and Civil Liberties*. Police Foundation, Washington, DC, pp. 119–139.
- Russell, J.A., 2003. Core affect and the psychological construction of emotion. *Psychol. Rev.* 110, 145–172.
- Salas, L.M., Ayon, C., Gurrula, M., 2013. Estamos traumatados: the effect of anti-immigrant sentiment and policies on the mental health of Mexican immigrant families. *J. Community Psychol.* 41, 1005–1020.
- Saldaña, J.M., 2015. *The Coding Manual for Qualitative Researchers*. SAGE Publications, Thousand Oaks, CA.
- Santa Ana, O., 2002. *Brown Tide Rising*. University of Texas Press, Austin.
- Santa Ana, O., 2013. *Juan in a Hundred: the Representation of Latinos on Network News*. University of Texas Press, Austin.
- Schleifer, T., 2017. King doubles down on controversial “babies” tweet. *CNN Politics: CNN Politics*.
- Semega, J., Fontenot, K., Kollar, M., 2018. *Income and Poverty in the United States: 2017. Report Number p60–263*. United States Census Bureau, Washington, D.C. <https://www.census.gov/data/tables/2018/demo/income-poverty/p60-263.html>.
- Sheehy, G., 2016. *America’s Therapists Are Worried about Trump’s Effect on Your Mental Health*. POLITICO Magazine. <https://www.politico.com/magazine/story/2016/10/donald-trump-2016-therapists-214333>.
- Singh-Manoux, Marmot, M.G., Adler, N., 2005. Does subjective social status predict health and change in health status better than objective status? *Psychosom. Med.* 67, 855–861.
- Suarez-Orozco, C., Suarez-Orozco, M., 1995. *Transformations: Immigration, Family Life and Achievement Motivation Among Latino Adolescents*. Stanford University Press, Stanford.
- Suyemoto, K.L., Roemer, L., Abdullah, T., Rollins, L.G., 2017. *Understanding Racism and Its Related Stress Can Help People of Color Cope with Negative Effects*. Anxiety.org, Newport Beach, CA. https://www.anxiety.org/understanding-racism-anxiety-and-related-stress-can-help-people-of-color-cope-with-negative-effects?utm_campaign=shareaholic&utm_medium=printfriendly&utm_source=tool.

- Szaflarski, M., Bauldry, S., 2019. The effects of perceived discrimination on immigrant and refugee physical and mental health. In: Frank, R. (Ed.), *Immigration Health (Advances in Medical Sociology)*. Emerald Publishing Limited, Bingley, UK, pp. 172–204.
- TIME, 2015. Here's Donald Trump's Presidential Announcement Speech. TIME. <http://time.com/3923128/donald-trump-announcement-speech/>.
- Trochim, W.M., 2006. Two-Group Experimental Designs. *The Research Methods Knowledge Base*, second ed. . <http://www.socialresearchmethods.net/kb/expsimp.php>.
- Tuchman, G., 1978. *Making News: A Study in the Construction of Reality*. The Free Press, New York.
- Tugade, M.M., Fredrickson, B.L., 2004. Resilient individuals use positive emotions to bounce back from negative emotional experiences. *J. Personal. Soc. Psychol.* 86, 320–333.
- Tugade, M.M., Fredrickson, B.L., Barrett, L.F., 2005. Psychological resilience and positive emotional granularity: examining the benefits of positive emotions on coping and health. *J. Personal.* 72, 161–190.
- USCB, U.S.Census Bureau, 2018. Current Population Survey, Annual Social and Economic Supplement, 2016. Table 8: Nativity and Citizenship Status by Sex and Hispanic Origin Type: 2016. U.S. Census Bureau, Washington, D.C.. <https://www.census.gov/data/tables/2016/demo/hispanic-origin/2016-cps.html>.
- Valentino, N.A., Brader, T., Jardina, A.E., 2013. Immigration opposition among U.S. whites: general ethnocentrism or media priming of attitudes about Latinos? *Polit. Psychol.* 34, 149–166.
- Vasquez-Salgado, Y., Ramirez, G., Greenfield, P.M., 2018. The impact of home-school cultural value conflicts and President Trump on Latina/o first-generation college students' attentional control. *International Journal of Psychology* 53, 81–90.
- Veenhoven, R., 2008. Healthy happiness: effects of happiness on physical consequences for preventive health care. *J. Happiness Stud.* 9, 449–469.
- Watson, D., Clark, L.A., Tellegen, A., 1988. Development and validation of brief measures of positive and negative affect: the Panas Scales. *J. Personal. Soc. Psychol.* 54, 1063–1070.
- Yakushko, O., 2009. Xenophobia: Understanding the roots and consequences of negative attitudes toward immigrants. *Counsel. Psychol.* 37, 36–66.
- Zautra, A.J., Affleck, G.G., Tennen, H., Reich, J.W., Davis, M.C., 2005. Dynamic approaches to emotions and stress in everyday life: Bolger and Zuckerman reloaded with positive as well as negative affects. *J. Personal.* 73, 1511–1539.
- Zengotita, T.D., 2005. *Mediated: How the Media Shapes Your World and the Way You Live in it*. Bloomsbury, New York.