

## The impact of home–school cultural value conflicts and President Trump on Latina/o first-generation college students’ attentional control

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Around the world, people migrate from poorer countries with less educational opportunity to richer ones with greater educational opportunity. In this journey, they bring their family obligation values into societies that value individual achievement. This process can create *home–school cultural value conflict*—conflict between family and academic obligations—for the children of Latina/o immigrants who attend universities in the United States. We hypothesised that this conflict causes cognitive disruption. One-hundred sixty-one Latina/o first-generation university students (called college students in the United States) were randomly assigned to one of four experimental prompts; thereafter, the students engaged in an attentional control task (i.e., the Stroop test). For Latina/o students living close to home, prompting a home–school cultural value conflict was more deleterious to attentional control than the other conditions. In addition, across all Latina/o students, a comparison of performance before and after President Trump’s election and inauguration showed that prompting family obligation (without mention of conflict) led to a significantly greater loss of attentional control after Trump was elected and inaugurated, compared with before Trump. We hypothesise that this effect resulted from Trump’s threats and actions to deport undocumented Latina/o immigrants, thus making fear about the fate of family members more salient and cognitively disruptive.

**Keywords:** Latinas/os; First-generation college students; Immigrant youth; Cultural value conflict; Cultural mismatch; Attention; President Donald Trump.

Around the world migrants have moved from poorer countries to richer ones, from environments with little opportunity for formal education to environments with greater opportunity for formal education. Turkish immigration to Germany, Filipino immigration to Australia and Mexican immigration to the United States are but a few examples (Vedder, Berry, Sabatier, & Sam, 2009). In such cases, people tend to bring strong family obligation values into more individualistic social ecologies (Greenfield, 2009); this occurs because family obligation values are adaptive where economic resources and educational opportunity are restricted, whereas individualistic values are adaptive in environments with greater material resources and more educational opportunity (Greenfield, 2016). Vedder et al. (2009) document this value discrepancy for immigrants from 26 different ethnic

backgrounds settled in 13 countries around the world: Across those 13 countries (including the ones listed above), immigrant parents held stronger family obligation values than did non-immigrant parents residing in the same country; similarly, adolescent offspring of these immigrant parents held stronger family obligation values than did adolescent offspring of the non-immigrant parents.

When immigration occurs, family obligation and individualism can come into conflict in the educational system of host countries, where children are expected to prioritise academic achievement, an individualistic value, over family obligation. This is known as *home–school cultural value conflict*—conflict between family obligation and academic obligation (Vasquez-Salgado, Greenfield, & Burgos-Cienfuegos, 2015). Greenfield and Quiroz (2013)

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have documented this value conflict at the elementary school level for immigrants from Latin American countries (i.e., Latinas/os) in the United States, the focal group in the present study.

In elementary school, this value conflict is manifest as a discrepancy between parent and teacher values. However, the conflict becomes internalised in high school where Latina/o youth feel torn between working to help their families (family obligation) or going to school (individual achievement) (Suárez-Orozco & Suárez-Orozco, 1995). Family obligations (e.g., attending family events, assisting family) are a collectivistic value that increases further during emerging adulthood (Fuligni & Pedersen, 2002; Fuligni, Tseng, & Lam, 1999), a period in development that typically overlaps with the transition to college. The increase in family obligations at this time, combined with an increase in school demands as one enters college, points to a need to examine the consequences of this value conflict at this developmental period.

In the United States, many Latina/o university students are the first in their immigrant families to attend college or university; they have been termed “first-generation college students.” Previous qualitative and survey research has revealed that home–school cultural value conflicts are both common in the lives of Latina/o first-generation college students and can disrupt university adjustment and performance, in part, by reducing students’ ability to concentrate on assignments (Vasquez-Salgado et al., 2015; Vasquez-Salgado & Greenfield, 2018). But qualitative research and surveys are limited in the causal inferences that can be made from them. The goal of the present study was to utilise experimental methodology in order to provide strict causal evidence that home–school cultural value conflicts disrupt the necessary cognitive resources that Latina/o first-generation college students rely on to succeed in the university. The causal nature of this study will illuminate the importance of studying and intervening in the cultural conflicts experienced by this group of underrepresented students who continuously struggle at 4-year postsecondary institutions in the United States (DeAngelo, Franke, Hurtado, Pryor, & Tran, 2011).

We used a laboratory paradigm to prompt reflection about home–school conflicts that Latina/o first-generation students experience. We then used the Stroop task to measure whether these conflicts create a disruption in attentional control. Importantly, we sought to demonstrate that it is the conflict between the two values—not either value alone—that causes attentional disruption. This conceptualization led to the experimental hypothesis.

Hypothesis 1. Latina/o first-generation college students, exposed to a home–school conflict prompt, would perform significantly worse (i.e., exhibit more errors) on an attentional control task, compared with participants

reflecting on family obligation alone, school obligation alone or an irrelevant control activity.

### **Role of distance in the experience of home–school cultural value conflict**

Not all Latina/o first-generation college students experience home–school value conflicts in the same manner. Previous work (Vasquez-Salgado et al., 2015; Vasquez-Salgado & Greenfield, 2018) has shown that distance from home plays an important moderating role. Qualitative and survey studies have shown that Latina/o first-generation college students who lived closer to home experienced direct conflicts between family obligation and academic obligation more frequently (Vasquez-Salgado et al., 2015; Vasquez-Salgado & Greenfield, 2018). Students who live in close proximity to their parents must often juggle attending a family event and completing academic work. Indeed, students who live in closer proximity to their parents also hold stronger family obligation values (Fuligni & Pedersen, 2002) and fulfil these obligations at a higher level (Tseng, 2004), a situation that makes them more susceptible to experiencing conflicts between family and academic obligations. These findings led to our second and main hypothesis, which is quasi-experimental:

Hypothesis 2. The effect of home–school value conflict on attentional control will be greater among Latina/o students living in closer proximity to their parents’ homes, implying a two-way interaction between distance and condition. Because the majority of first-generation college students tend to live within 50 miles from their parents’ home (Saenz, Hurtado, Barrera, Wolf, & Yeung, 2007), we operationalised “close” as 50 miles or less and far as 51 miles or more.

### **Role of gender in the experience of home–school cultural value conflict**

Lastly, research has also found that female students experience higher levels of home–school value conflicts than males (Vasquez-Salgado & Greenfield, 2018). This finding aligns with prior research suggesting that females are more heavily burdened by family obligations than males (Stein et al., 2014). This finding also aligns with the notion that traditionally ascribed gender roles require females to fulfil productive tasks at home and males to fulfil tasks further from home (Manago, Greenfield, Kim, & Ward, 2014); direct family obligations (i.e., spending time with family, attending family events and assisting family) typically occur in the home. Our third hypothesis is as follows:

Hypothesis 3. Female students living close to home will be the main drivers of the Condition X Distance effect

(Hypothesis 2), such that they will exhibit significantly more attentional disruption in the conflict condition than male students living close to home.

make family situations more salient, such as concern about the possibility of family deportations.

## The election and inauguration of President Trump

Though not intentional, our study was conducted in the midst of a historic political event in the United States. About half the participants took part in our study prior to the election and inauguration of President Donald Trump and the remaining took part subsequent to these historical events. This situation is significant as President Trump was a dominant media figure during the 2016 U.S. presidential election, often campaigning on the promise to deport undocumented Latina/o immigrants (i.e., immigrants who do not have the legal status to reside in the United States). In fact, soon after his inauguration, President Trump signed executive orders that would make more undocumented immigrants eligible for immediate deportation (Diamond, 2017); several news outlets reported daily deportations of Latinas/os, many of whom had families that they had to leave behind. This situation created a natural experiment that tests whether the election and inauguration of President Trump may have created circumstances in which the family obligation condition triggered worry about the deportation of undocumented family members, thereby producing attentional disruption. We made the election and presidential inauguration the cutoff point for investigating what we term *pre- and post-Trump*. However, because there were no participants in the family obligation condition between the election (November 8, 2017) and the inauguration (January 20, 2018), our data cannot specify whether the pre- and post-Trump difference discussed in the results began to show up at the time of the election or at the time of the inauguration.

Although we did not know the documentation status of our participations, all identified as Latina/o and almost all had immigrant parents. Many Latina/o families in California (the geographical location of our research) contain a mix of undocumented members, permanent residents and citizens. Thus, many participant families may have been at risk of being affected by President Trump's executive actions targeting undocumented immigrants. Taken together, this situation led to the final hypothesis, adding an additional quasi-experimental element to our study:

Hypothesis 4. Being prompted to reflect on family obligation would increase attentional disruption for students participating in the experiment after the election and inauguration, compared with before the election and inauguration. We did not expect any differences pre- and post-Trump for the other conditions because we reasoned that being prompted to reflect on family obligations would

## METHODS

### Participants

Latina/o first-generation college students who were in their first year at the University of California, Los Angeles (UCLA) took part in this study. Participants were recruited through various avenues (e.g., psychology subject pool, classroom announcements, flyers posted throughout campus and social media). Although we had 181 initial participants, 20 were removed because they performed extremely poorly on the practice trials, scored 100% incorrect on the attention task, reported a learning disability or failed to complete all measures of interest. Thus, the final sample consisted of 161 participants.

Based on the demographic survey carried out after the experiment, all participants identified as Latina/o. Eighty-three percent of the sample were born in the United States and the remaining 17% were born in Latin American countries. However, almost all our participants came from immigrant families: 98% of participants' had at least one parent who had migrated from a Latin American country.

All participants were first-generation college students, which we defined as having parents who did not receive a college degree (e.g., associate's degree and bachelor's degree). In fact, only 7 of the 161 students in the sample had parents with some college experience. The average parental education was junior high school, and the average parental income reported was \$30–\$39,999 a year.

The average age of the sample was 18.29 ( $SD = 0.51$ ). All participants were right-handed and none was colour-blind. Sixty percent were female and 40% were male; these values are similar to that of the larger university campus where about 67% and 33% of entering Latina/o students are female and male, respectively (average percentages based on the years for when data collection took place).

### Design

The experimental independent variable was a set of four different prompts: (a) family obligations, (b) academic obligations, (c) home–school conflict and (d) favourite restaurants (which served as the control condition). In addition, there were three quasi-experimental independent variables: distance from parental home (close, far), gender (male, female) and the pre- and post-Trump variable (before or after the election/inauguration). The first two were based on our prior research. The third emerged as a result of President Trump being elected and inaugurated as President. The dependent variable, attentional

**TABLE 1**  
Participants per cell in a 2 (distance) × 2 (gender) × 4 (condition) experimental design

	<i>Close</i>			<i>Far</i>		
	<i>Females (N)</i>	<i>Males (N)</i>	<i>Total (N)</i>	<i>Females (N)</i>	<i>Males (N)</i>	<i>Total (N)</i>
Home–school conflict	12	9	21	12	8	20
Family obligations	12	9	21	12	8	20
Academic obligations	11	9	20	13	6	19
Control	12	9	21	12	7	19
Total	47	36	83	49	29	78

control, was defined as the percentage of errors that participants made on a Stroop task, to be elaborated below.

Table 1 shows the number of participants in each of the 16 cells generated by the variables of experimental prompt, distance from parental home and gender. Fewer male participants reflect the fact that there are twice as many Latina/o females as males in the university.

The number of students who participated in the experiment pre- and post-Trump was roughly similar across the conditions. Eighteen students in the family obligation condition participated before the election and inauguration and 23 participated afterwards. The participant breakdown of the other conditions pre- and post-Trump was as follows: home–school conflict (pre-Trump:  $n = 20$ ; post-Trump:  $n = 21$ ), academic obligations (pre-Trump:  $n = 16$ ; post-Trump:  $n = 23$ ) and control (pre-Trump:  $n = 20$ ; post-Trump:  $n = 20$ ).

## Measures

### **Distance from parental home**

Distance was assessed through participants' self-reports of the city, state and zip code of their parents' current residence. This information was then entered onto Google maps in order to determine the number of miles that their parents lived from their current residence (i.e., college campus). The shortest route was utilised; the number of miles for students who lived with their parents was coded as "0." Students who lived 50 miles away or less were categorised as living "close" to their family and students who lived 51 miles away or more were categorised as living "far." Ninety-five percent of the sample lived in the dormitories; only 5% indicated that they lived with their parents. The latter were categorised as "close." The average number of miles from home was 20.02 miles for "close" ( $SD = 9.91$ ; range = 0–49.9) and 243.30 miles for "far" ( $SD = 432.64$ ; range = 51.5–2795).

However, in order to create a larger break between the two distance groups, a participant in the "close" group who lived 49.9 miles away was moved to the "far" group. This resulted in a 7.5-mile gap between the close ( $M = 19.66$ ;  $SD = 9.40$ ; range = 0–42.4) versus far group ( $M = 240.82$ ;  $SD = 430.38$ ; range = 49.9–2795). It

is worth mentioning that statistical distance results noted in the Results section remained the same regardless of whether the participant was placed in the close or far distance group. Nonetheless, coding the distance variable with a 7.5 mile gap between the close versus far group was the one that was used for our analyses.

### **Gender**

Gender was assessed via participants' self-reports of their gender. This was an open-ended question: "What is your gender?"

### **Experimental prompts: Four conditions**

Students were randomly assigned to receive one of the following four prompts to which they responded in writing:

*Family obligations prompt.* In three to five sentences, list and describe all of the things that your family would like you to do with or for them (e.g., spending time with family on weekends, attending family events, helping them with tasks).

*Academic obligations prompt.* In three to five sentences, list and describe all of the academic work that you need to complete for your current courses (e.g., reading assignments, writing assignments, studying for exams).

*Home–school cultural value conflict prompt.* In three to five sentences, list and describe instances, since you started UCLA, when you had to choose between doing your academic work (e.g., reading assignments, writing assignments, studying for exams) and doing things with or for your family (e.g., spending time with family on weekends, attending family events, helping them with tasks).

*Control prompt.* In three to five sentences, list and describe your favourite restaurants in Los Angeles (e.g., a pizza parlour, a Chinese restaurant, a fast food restaurant).

### **Attentional control**

After responding to one of the four prompts, participants took a Stroop test to assess their attentional control. This is a popular test of attention and was intended



to capture the lack of concentration and attention associated with home–school conflicts experienced by participants in our prior research (Vasquez-Salgado et al., 2015; Vasquez-Salgado & Greenfield, 2018). Students were asked to indicate the ink colour presented on two lists. In the first list, words were congruent with the printed colour of the words; for example, the word “BLUE” was printed in blue ink. However, in the second list, words and colours were incongruent; for example, the word “BLUE” was printed in red ink. Both lists were randomly organised to form one list, with 25% congruent (8 items) and 75% (24 items) incongruent items. Participants tend to make more errors on the incongruent list because there is semantic interference between the written word and the ink colour in which it is printed (MacLeod, 1991; Stroop, 1935). Students’ attentional control was calculated by subtracting the percentage correct on the incongruent list from percentage correct on the congruent list (baseline). A larger positive value would indicate a higher percentage incorrect on the incongruent than the congruent list, signifying disruption on the attentional control task (e.g., 100% correct on congruent minus 87.5% correct on incongruent equals 12.5% disruption on attentional control task). The task was programmed on E-prime and took, on average, between 2 and 3 minutes to complete.

### ***Pre- and post-President Trump***

The election and inauguration of President Trump served as a natural manipulation. Participants were considered pre-Trump if they participated in the study before the election and inauguration. They were considered post-Trump if they participated in the study after the election and inauguration. President Trump’s name was never mentioned in the experimental procedure. Only two students (i.e., one in the home–school conflict condition and another in the academic obligations condition) participated in the experiment between the election and the inauguration. Whether they were considered pre- or post-Trump did not change the results.

### **Procedure**

The study was advertised to potential participants as seeking first-year students in order to test the effectiveness of writing and problem-solving activities that might be utilised for a new course at the University. Interested students completed an online pre-screening on SurveyMonkey.com. Participants who met the pre-screening criteria (e.g., first-generation status, Latina/o) were invited to take part in the study and were presented with an online consent form. After consenting, participants took a short survey that asked them to indicate their gender and the city, state and zip code of their parents’ home address.

Participants began the in-person session by responding in writing to one of the four prompts, followed by taking the Stroop test on a laptop computer. Thereafter, participants completed a demographic survey. At the end of the session, students received \$25 cash as payment for their participation and were told that they would be debriefed when the study was completed. The entire procedure took, on average, 30 minutes. In-person sessions were conducted by one of several Latina/o experimenters; a sheet with a general introduction to the study being conducted (described in the previous paragraph) was placed over the prompt in an effort to make the experimenter blind to the condition that was being conducted.

### ***Block randomisation and power analysis***

Data were collected across 2 years. During the first year, participants were randomly assigned to conditions using a preset block randomisation procedure. Each block included four conditions (family, school, home–school conflict and control) and there was a total of 20 blocks. For each block, the condition order was randomly assigned without replacement.

However, by the end of the first year of data collection, we had analysed data from a separate survey study (Vasquez-Salgado & Greenfield, 2018) and found that distance and gender both related to the experience of home–school value conflict. We therefore added these two new quasi-experimental independent variables to the design. At that point, using the means and standard deviations of data collected from the first half of the study, we conducted a power analysis for our  $2 \times 2 \times 4$  factorial design; it revealed that 12 participants per cell were needed. We continued block randomisation to fill in the 16 cells. However, fewer Latino males than females in the UCLA population led to fewer males per cell (Table 1).

### **Analysis**

We used mixed methods, integrating quantitative and qualitative analyses. On the quantitative level, a three-way analysis of variance (ANOVA) was used to test the effect of prompt (family obligations, school obligations, home–school conflict and control), distance (close and far) and gender (female and male) on attentional control. If an effect was significant, planned comparisons were conducted. However, for Hypotheses 3 and 4, only planned comparisons were used. One-tailed tests were used with directional hypotheses and two-tailed when no difference was expected (Howell, 2008). On the qualitative level, we have selected extracts from the written responses to the prompts in order to relate the quantitative findings to participants’ descriptions of their lived experience.

**TABLE 2**  
Mean disruption on attentional control task as a function of distance, gender and condition

	Close			Far		
	Females M (SD)	Males M (SD)	Total M (SD)	Females M (SD)	Males M (SD)	Total M (SD)
Home-school conflict	.27 (.38)	.06 (.09)	.18 (.31)	.07 (.14)	.05 (.05)	.06 (.11)
Family obligations	.07 (.13)	.11 (.25)	.09 (.19)	.04 (.03)	.03 (.05)	.03 (.04)
School obligations	.00 (.07)	.04 (.05)	.02 (.06)	.05 (.09)	.06 (.09)	.05 (.08)
Control	.07 (.05)	-.02 (.11)	.03 (.09)	.10 (.13)	.13 (.31)	.11 (.21)
Total	.10 (.23)	.05 (.15)	.08 (.20)	.06 (.11)	.06 (.16)	.06 (.13)

## RESULTS

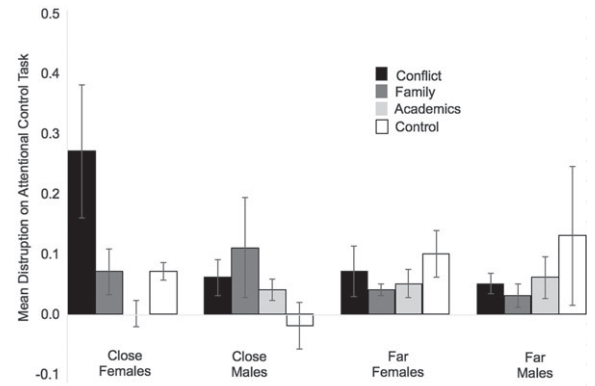
### Hypotheses 1–3

#### Experimental analysis

Descriptive statistics for the attentional control variable as a function of the levels of the three pre-planned factors is shown in Table 2. We predicted that, across the entire sample, participants would perform significantly worse on the attentional control task in the home–school conflict condition than in the other conditions (Hypothesis 1). However, the main effect of condition was not significant,  $F(3, 145) = 1.49, p = .221$ , partial  $\eta^2 = .03$ .

Nonetheless, as predicted in Hypothesis 2, there was a significant interaction between distance and condition,  $F(3, 145) = 2.93, p = .036$ , partial  $\eta^2 = .06$ , suggesting that the effect of condition on attention performance depended on whether a student lived close or far from their parents' home. Two separate one-way ANOVAs revealed that the effect of condition was significant for students living close to their parent's home,  $F(3, 79) = 3.20, p = .028, \eta^2 = .11$ , but not those living far from their parent's home,  $F(3, 74) = 1.23, p = .304, \eta^2 = .05$ . This pattern further confirmed our hypothesis that the effect of condition would be concentrated among students living close to their parents' home.

Planned contrasts among students living close to their parents' home revealed that reflecting on home–school conflict prompted significantly more attentional disruption than reflecting on academic obligations or the control condition,  $t(21.86) = 2.40, p = .013$ , Cohen's  $d = .72$ , and  $t(23.72) = 2.13, p = .022$ , Cohen's  $d = 0.66$ , respectively. Although the disruption in attentional control was almost 10 points larger in response to the conflict prompt than to the family obligation prompt, the two groups were not significantly different,  $t(32.99) = 1.18, p = .124$ , Cohen's  $d = 0.35$ . As will be discussed later, the lack of significant difference between conflict and family conditions could have been due to the pre- and post-Trump difference in the family condition. There were no significant differences between the other conditions (e.g., family obligation vs. academic obligation,  $p = .108$ – $.556$ ).



**Figure 1.** Mean disruption on attentional control task across experimental conditions, distance and gender of the participant.

As predicted in Hypothesis 3, females who lived close to their parents' home exhibited significantly more errors in the conflict condition than males who lived close to their parents' home,  $t(12.53) = 1.87, p = .043$ , Cohen's  $d = 0.76$ ; this finding suggests that females living close to home experienced the most attentional disruption during reflection on these conflicts and that gender played a role in the findings noted for Hypothesis 2. Indeed, close visual examination of the means across the cells illustrate a pattern whereby the effect of the condition was more concentrated among females living close to their parents' home because they exhibited the highest level of attentional disruption in the conflict condition (Table 2, Figure 1). Please see Table 3 for a complete portrait of the main effects and interactions tested in our three-way ANOVA. Included in Table 3 are tests that were not part of our main hypotheses and therefore, not described in the Results section; note that none of those tests were significant (e.g., main effect of gender; interaction between gender and condition).

#### Qualitative examples

Table 4 presents examples of participants' responses to the experimental prompts. The examples exemplify the experience of participants in the different conditions and served as a manipulation check (i.e.,

**TABLE 3**

Three-way ANOVA for the effect of condition, distance and gender on attentional control

Source	df	F	$\eta^2$	p
Condition (C)	3	1.49	.03	.221
Distance (D)	1	0.25	.00	.620
Gender (G)	1	1.14	.01	.287
C × D	3	2.93 *	.06	.036
C × G	3	1.51	.03	.215
D × G	1	1.23	.01	.270
C × D × G	3	1.30	.03	.279
S within-group	145	(.03)		

Note: Values enclosed in parentheses represent mean square errors.  
\* $p < .05$ .

showing that the experimental manipulation was successful in prompting what we intended to prompt). The examples that were selected are typical responses to each prompt.

The following examples provide insight into the underlying cognitive and social processes that contribute to the effect of distance and gender on response to the conflict between family obligation and academic obligation:

*Close-female* (17% more errors for incongruent compared with congruent Stroop items). “I have many instances when choosing between doing my academic work or doing thing[s] with my family, for example family gatherings or someone’s birthday. I have tried my very best to plan out when to do work because I know when I go to these activities I might not finish my work. Sometimes, I want to do assignment back home but there is always something my family members need from me ... but I have a lot of work to complete that it sometimes gets overwhelming.”

*Close-male* (8% more errors for incongruent compared with congruent Stroop items). “In some instances I have chosen my family over my academic work. When my grandfather passed away during winter quarter, I helped my family recover with support. Not only that but I often choose to help my [family] around the house during the weekends which puts me behind on homework due Monday.”

*Far-female* (no decrement on incongruent items). “Since starting school at UCLA, I have not had many occasions where I have had to spend time with my family since they live a couple hours away from here. Most of the time, I have enough time to do my academic work instead. One time, I did go home for a weekend to see my family but I made sure to finish or complete the majority of my coursework before going.”

*Far-male* (no decrement on incongruent items). “Since I am from Norcal, I am significantly far from home. Because of this, I am not able to go home to visit every weekend as that will end up costing a ton of money. However, when there is a holiday I do go visit and during the days that I am home I do little to no academic work

**TABLE 4**

Examples of participants’ qualitative responses to priming conditions

Priming condition	Example
Family obligations	“My family enjoys my company all the time, so spending plenty of time with them is a must. When I get a chance to go home on the weekends, they like for me to have dinner with them, just so that I have a moment to talk about things going on in school and in my life. They also like for me to hear them talk about any upcoming plans they have or goals. My family expects me to complete my chores when I go over. Attending church is a must when I go home to my family on the weekends.” [Female, Close]
Academic obligations	“For my current courses, Phy Sci 5, Poli Sci 10, and Ethnomusicology 50B, I have many assignments to complete. For Phy Sci 5 I have to complete 5 quizzes, a workbook with 10 chapters worth of questions, a project, midterm, and final. For Poli Sci 10 I have 5 quizzes, 2 essays, and a Final worth 30%. Finally, for Ethnomusicology 50B I have two essays, a midterm, a final, and the opportunity for an extra credit essay.” [Male, Close]
Home–school cultural valuec	“Since I started at UCLA I have gone home almost every weekend to spend time with my family. Anytime it is a family member’s birthday I head back home, for example last week I went for my mom and grandma’s birthday when I should have been reviewing for my midterm. I also go to work to help with things and that takes away from my time for assignments and reading. I also go home whenever they [need] help with anything, like when my grandma needs to go to the doctor and no one else is available to take her.” [Female, Close]
Control	“My two favourite restaurants in Los Angeles would be La Fonda and Jonny Rocket. La Fonda’s a Mexican restaurant that always includes live mariachi music. It is owned by Mariachi Los Camperos, one of my favourite mariachi groups, and they perform on the weekends whereas during the week they have other groups perform. Jonny Rocket, specifically the one on Universal City Walk, is my favourite fast food restaurant due to their classic 50’s American theme. In my opinion their burgers and fries are the best and it’s a good place to sit and enjoy a meal after walking around or coming from Universal Studios.” [Male, Far]

as I want to enjoy the little time I am able to spend with my family.”

These qualitative examples illuminate the stark contrast between students living close versus far from home. Those living far may be unaffected by conflicts because they experience few of them. They also seemed to prepare or organise themselves ahead of time around the idea that they will not do any schoolwork while visiting home.

Although the close male and female both listed conflicts and the negative role of these conflicts in their academic studies, their attentional reactions to conflict differed. A cultural reason for this gender difference will be elaborated in the Discussion section.

#### Hypothesis 4: Before and After President Trump

We hypothesised that students would exhibit more attentional disruption in response to the family obligation prompt after President Trump's election and inauguration, than before these events. As predicted, there was a significant pre- and post-Trump difference whereby students in the family obligation condition exhibited significantly more attentional disruption if they participated in our study after the presidential election and inauguration (Family  $M = 0.10$ ,  $SD = 0.17$ ) than before (Family  $M = 0.02$ ,  $SD = 0.06$ ),  $t(39) = 1.82$ ,  $p = .038$ , Cohen's  $d = 0.63$ .

This finding helps explain why one student who participated in the family obligation condition post-Trump had watery eyes at the end of the session and told the experimenter that she felt the prompt was "sort of personal." This behavior on the part of participants in the family obligation condition did not occur prior to Trump's election and inauguration. Furthermore, as predicted in Hypothesis 4, there were no pre- and post-Trump differences in the other conditions (i.e., conflict, academic and control primes;  $p = .310-.657$ ). The absence of pre- and post-Trump difference remained whether the two students in other conditions who participated between the election and the inauguration were considered pre- or post-Trump.

In order to rule out a seasonal explanation for the pre- and post-Trump difference, we compared cognitive disruption pre-Trump with cognitive disruption post-Trump, holding season constant. Because the sample size became too small for inferential statistics, we report the pattern rather than carry out a significance test. Participants in the family obligation condition during Winter Quarter 2016 (pre-Trump) were compared with participants in the family obligation condition during Winter Quarter 2017 (post-Trump). The mean difference (more disruption post-Trump) remained ( $M = 0.02$ ,  $SD = 0.05$ , pre-Trump;  $M = 0.10$ ,  $SD = 0.17$ , post-Trump).

Together, these results suggest that, in the President Trump era, reflection about family is cognitively disruptive for children of Latina/o immigrants. The increase in attentional disruption post-Trump may be the reason why attentional control in the home-school conflict condition did not significantly differ from attentional response to the family obligations prompt.

## DISCUSSION

In line with our expectations and prior research, students who lived less than 50 miles from their parents'

homes were affected by the direct conflicts between family obligations and academic obligations, while students living 50 miles or more were unaffected (Vasquez-Salgado et al., 2015; Vasquez-Salgado & Greenfield, 2018). Qualitative responses further illuminated the finding: students living close to home wrote about the disruption these conflicts caused for their academics; but students living far from their parents' home seemed to be unaffected, as they organised their schoolwork in advance in order to enjoy the less frequent and more planned time spent with their families. Although our results align with prior work, it is important to point out that our distance variable may be a result of differences that students bring with them prior to arriving at the university. For example, perhaps Latina/o students who moved further from home were more individualistic and in family environments that encouraged a variety of college and university choices compared with students who studied close to home.

Among those students living close to their parents' home, the home-school conflict condition caused significantly more disruption of attentional control than the academic obligation and control conditions. Contrary to expectations, the conflict condition did not differ significantly from the family obligation condition, although the difference was in the predicted direction. Our explanation lies in the post-Trump state of mind for Latina/o immigrant families, discussed below.

Nonetheless, as hypothesised, we found that female students living close to their parents' home were the main drivers of the attentional disruption caused by conflicts. Thus, they exhibited significantly more attentional disruption in response to the home-school conflict prompt than male students living close to their parents' home. This gender difference aligns with prior research suggesting that females are more burdened by family obligations (Stein et al., 2014). This may be especially true in the Latina/o culture because of the adoption of beliefs such as *marianismo*, which "emphasizes the self-sacrificing role of females and highlights the female's role as family caretaker" (Sy, 2006, p. 369).

We believe that the lack of significant difference between the home-school conflict and the family obligation condition was largely due to increased disruption and variability in the attentional task in the family obligation condition during the post-election and inauguration period. The increased variability (noted in the standard deviation) post-Trump compared with pre-Trump is a result of Latina/o participants in our study being differentially affected depending on whether or not their families included undocumented members and the relationship of those members to them. As noted earlier, the family obligation condition may possibly have triggered fears of deportation of undocumented loved ones during the post-Trump period.



Though President Trump's election and inauguration partially disrupted our original hypotheses, we believe the resulting findings are very useful for both academic and public awareness. University administrators, faculty and policy makers need to know that Latina/o university students, a population that continuously struggles in the education pipeline (Sólorzano, Villalpando, & Oseguera, 2005), are being cognitively affected by the immigration policies and attitudes of our current President.

Our study had one main limitation: We did not achieve our goal of having 12 subjects across all of our 16 cells. In particular, we did not have enough males, especially males living far from home. Thus, our design was underpowered. Our underpowered study may explain why despite the effect of condition being more visually concentrated among females living close to home, we did not obtain a significant three-way interaction.

### Contribution and implications

Our study makes an important and original contribution to the scientific literature because we utilised an experimental rather than qualitative or survey design. By experimentally manipulating the conflict between family and academic obligations that is experienced during the transition to college and observing its effect on a well-known cognitive task in the laboratory, it is possible, for the first time, to make a strict causal inference that this value conflict causes cognitive disruption.

The results of our study have important implications for policy and practice. They suggest the need to create interventions that will aid Latina/o first-generation college students—as well as students from immigrant families around the world—to navigate direct cultural value conflicts between family obligations and academic obligations. Our results also point to a need to aid Latina/o college students in negotiating their fears about family, now that Trump is President. Counsellors working with Latina/o youth from immigrant families should make it a point to discuss the impact that the election and inauguration of President Trump has had on them and provide them with tools to overcome their fears. Put in a broader context, the “pre- and post-Trump effect” implies that cognitive disruption may occur for college students around the world who may be experiencing political rhetoric and actions against their group. Like Latina/o students in the United States, their academic success may require interventions to help them cope successfully with very psychologically disruptive conditions.

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