

CULTURAL FRAME SWITCHING OF RESPONSE STYLES AS A FUNCTION OF LANGUAGE AND CULTURAL VALUES

A Thesis By

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Abstract:

As the discourse in society shifts to include previously marginalized perspectives, it is imperative that the forms of assessing and characterizing individuals from diverse backgrounds be re-evaluated as well. Research on response styles has raised concern over the interpretation of test and survey results of diverse groups. The aim of the present study was to further investigate response styles rather than perpetuate the practice of eliminating them. Consistent with dynamic constructivism, the culture-carrier-context (CCC) model and cultural frame switching (CFS), the present study examines the role that cultural values play in explaining the mechanism through which language influences responding. This study sampled 87 Mexican American bicultural bilingual undergraduate students. Participants completed five subscales of the Latino/Anglo Cultural Value Scales (LCVS) that assess the Latinx cultural values of *familismo*, *simpatía/respeto*, gender roles, power distance, and allocentrism. Participants were randomly assigned to the English (or Spanish) language condition at Time 1 and the Spanish (or English) language condition at Time 2. Results suggest that overall, participants engage in greater ARS and ERS on Spanish-language questionnaires compared to English-language questionnaires. *Simpatía* was also found to mediate the language-ARS association. As expected, participants more strongly endorsed the cultural values of *simpatía* and allocentrism when responding to Spanish-language questionnaires compared to English-language questionnaires. Contrary to expectations, participants were also found to endorse less power distance in Spanish than in English. Study implications and future research are discussed.

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CHAPTER 1

INTRODUCTION

As the discourse in society shifts to include previously marginalized perspectives, it is imperative that the forms of assessing and characterizing individuals from diverse backgrounds be re-evaluated as well. Research on response styles has raised concern over the interpretation of test and survey results of diverse groups. Response styles refer to a systematic form of responding to Likert-type scales that is independent of the test items' content (Fischer, 2004; Johnson et al., 2005). When conducting psychological assessments, respondents are expected to use the full-range of a Likert-type scale for each test item to quantify their behaviors or perceptions. Yet, research shows that patterns in the way participants respond is prevalent; these patterns are known as response styles. Some researchers view response styles as measurement error that should simply be corrected for, whereas others view these patterns as behavioral manifestations of culture that need further investigation (Fischer, 2004; Leung & Bond, 1989; Smith, 2016; van de Vijver & Leung, 1997).

Because response styles have been observed across cultures, with some cultures responding in these patterned forms whereas others do not (Cheung & Rensvold, 2000), I aimed to further investigate this phenomenon rather than perpetuate the practice of eliminating response styles. Though some studies have attempted to provide and test theoretical explanations for why response styles occur, no study to date has looked at the role that cultural values play in explaining the mechanism through which language influences responding. In fact, only one study has attempted to examine the influence of cultural values on response styles (Davis et al., 2011). Therefore, I aimed to contribute to the literature by examining the relationship between language, cultural values, and response styles among a Mexican American bicultural bilingual sample.

Response Styles and Cultural Differences

There are three empirically supported types of response styles: acquiescent response style (ARS), extreme response style (ERS), and mid-point or moderate response style (MRS). Of interest to the current study are ARS and ERS. ARS occurs when the upper values of a scale are

systematically endorsed more often than the rest of the scale (e.g., selecting a 4 [agree] or 5 [strongly agree] on a 5-point Likert-type scale). On the other hand, ERS occurs when participants systematically use the extreme ends of a Likert-type scale more so than the rest of the scale (e.g., selecting a 1 [strongly disagree] or 5 [strongly agree] on a 5-point Likert-type scale). These patterned responses impact results on tests, measures, and any instrument using Likert-type scales (Chun et al., 1974). One study found that response styles influenced the relationship between socioeconomic status and psychological distress. Specifically, these variables were found to be less strongly correlated before ARS was accounted for; once ARS was statistically controlled, socioeconomic status was found to predict distress (Ross & Mirowsky, 1984).

There is extensive research that suggests culture is a significant contributing factor to the use of response styles. Culture is defined as a group of interconnected people that produce, distribute, and reproduce collective knowledge such as the group's values, beliefs, symbols, and social ideals (Chen, 2015; Ralston et al., 1995). In comparing across cultures, response styles have been observed among ethnic groups such as Asian, Black, and Latinx samples, whereas Anglo samples tend to show little to no patterned forms of responding (Cheung & Rensvold, 2000; Clarke, 2000). Though it is understood that culture extends beyond nationality, race, or ethnicity, much of the literature generally frames cultural group differences in response styles using these participant characteristics (Bachman & O'Malley, 1984; Cheung & Rensvold, 2000; Davis et al., 2011). It should be noted that "Latinx" (instead of Hispanic) has been purposefully used and refers to a contemporary term that encompasses individuals from Mexican, Puerto Rican, Cuban, Central American, and South American origins in order to honor the variation in gendered and genderless self-concepts (Vidal-Ortiz & Martinez, 2018).

The literature suggests that Latinx individuals engage in greater ARS patterns compared to Anglo individuals (Johnson et al., 2005), and that Latinx respondents who are more oriented to their heritage culture compared to the dominant culture also engage in greater ARS (Marin et al., 1992). Similarly, another study found that Latinx participants who identified as less oriented to the dominant

culture were also more likely to engage in ARS (Ross & Mirowsky, 1984). These findings suggest that some aspects of the Latinx experience may be related to patterned responses. Collectively, ARS studies across cultures show that Anglo individuals engage in less ARS than Latinx individuals, and the likelihood of engaging in ARS is positively related to a heritage culture orientation for Latinx respondents.

Likewise, research on ERS shows similar findings to those of ARS. Specifically, the literature on ERS indicates that ethnic populations, as well as some Anglos, engage in this response style. Though research on Anglos is limited, there are some studies that suggest U.S. respondents—predominantly composed of White/Anglo individuals—respond in extreme forms (Chen et al., 1995; Chun et al., 1974). Overall, these studies indicate that ERS engagement may be influenced by some aspects of the U.S. culture. Of interest to the present study are the data on Latinx populations because they compose one of the fastest growing ethnic groups in the United States (U.S. Census Bureau, 2005; Davis et. al., 2011).

One study sampling Latinx individuals from different geographical locations found that this group endorsed significantly greater extreme responses compared to Anglos (Marin et al., 1992). This study noted, however, that participants were allowed to choose whether to respond in Spanish or English, making it possible for language to influence response styles. A different study assessing Latinx and White individuals' satisfaction with their healthcare providers found that Latinxs were 40% more likely to use ERS compared to Whites. This study pointed to the importance of accounting for ERS patterns in Latinx populations. These results suggested that the often-observed high ratings by this group may actually be due to their tendency to respond in extreme forms (Weech-Maldonado et al., 2008). Similarly, another study assessing opinions on health care access and other medical related issues found that Latinx respondents engaged in greater use of ERS compared to the general U.S. population (Aday, Chiu, & Andersen, 1980). Overall, some U.S. samples (consisting of predominantly White individuals) appear to engage in extreme responding. However, the majority of research suggests that Latinx groups use greater ERS than do Anglos. One study suggested that

participants' responding in Spanish on Spanish-language questionnaires may be influencing these results (Gibbons et al., 1999).

The Bicultural Bilingual Experience

Beyond ethnicity, race, and nationality, another cultural variable that has been explored as it relates to response styles is the influence of language. With language as a manipulated variable, research suggests that language—and other cultural factors influenced by language—prompt bicultural bilingual samples to engage in ARS and ERS (van de Vijver & Leung, 1997). For example, one study found that Latinx respondents displayed more extreme responding when completing questionnaires in Spanish compared to those who completed questionnaires in English (Hui & Triandis, 1989).

For my thesis, I argued that sampling Latinx bicultural bilingual individuals, specifically Mexican Americans, living in the United States allowed for a fuller understanding of differences in response styles because this population is likely influenced by their culture, language, and other cultural variables related to language. Bicultural bilingual individuals are those who have internalized two cultures (Luna et al., 2008), are fluent in the two affiliated languages (Nguyen & Benet-Martinez, 2007), and vary in their individual connection to each culture (Lechuga, 2008). I also assessed a Mexican American bilingual and bicultural sample because it presented the ability to study not only between-group effects, but also within-subjects effects (Benet-Martinez et al., 2005). Because bicultural bilinguals have internalized both their heritage culture and the dominant culture and are fluent in both Spanish and English, each culture and language can be independently manipulated (Nguyen et al., 2009). The present study henceforth refers to bicultural bilinguals as simply “bilinguals”—though it should be noted that not all bilinguals are considered bicultural, and not all bicultural individuals are bilingual.

Because bilinguals make up a significant proportion of the U.S. population (Ryan, 2013), it is important to study response styles among this group. Approximately 18% of the U.S. population reported speaking a language other than English at home, and about two-thirds of this group reported

Spanish as their preferred language (U.S. Census Bureau, 2000). Moreover, about half of those who reported speaking a language other than English at home also reported speaking English “very well,” thus making them bilingual. Although the ability to speak Spanish is not true for all Latinx individuals, research suggests the majority of Latinxs living in the U.S. are bilingual (Valdes, 1997). As mentioned, the Latinx population is one of the fastest growing ethnic groups (U.S. Census Bureau, 2005; Noe-Bustamante & Flores, 2019). Approximately 60 million Latinxs accounted for the total U.S. population in 2017, compared to 14.8 million in 1980 (Noe-Bustamante & Flores, 2019). Between the years 2010 and 2020, this group represented 51% of all population growth (Krogstad & Noe-Bustamante, 2021), and this growth appears to be due to births within the United States and not from immigration alone (Patten, 2016). It is also important to note that 62% of the Latinx population are of Mexican decent (Krogstad & Noe-Bustamante, 2021). As this group continues to increase, so does the need to accurately characterize the potential data (e.g., from survey results)—which may be influenced by response styles—that they contribute. Therefore, by using Mexican American bilingual participants, I aimed to understand the effect of language on patterned responding, and to explore whether cultural values drive the language-response style relationship.

Frameworks and Model

To determine how response styles are affected by participants’ culture and language, I drew upon dynamic constructivism and cultural frame switching (CFS), as well as the culture-carrier-context (CCC) model. According to dynamic constructivism, bilinguals possess dual cognitive frameworks: one for each culture (Hong et al., 2000). These frameworks are made up of loosely connected domain-specific knowledge networks that are shared by individuals within the same culture (Benet-Martinez et al., 2002; Briely et al., 2005; D’Andrade, 1984). From this perspective, culture can be understood as a collection of interpretive mental frames, or cultural meaning systems that influence cognition, affect, behavior, and aspects of identity (Benet-Martinez et al., 2002; Ramirez-Esparza et al., 2006). This perspective also posits that cultural meaning systems can be opposing. Specifically, bilinguals can have internalized cultural frames that hold conflicting values, practices,

and identities (Smith, 2004). These conflicting cultural constructs take turns guiding the bilingual's behaviors, feelings, and thoughts (Hong et al., 2000). Therefore, according to dynamic constructivism, the within-subjects differences found among bilingual respondents is due to the impact that one culture has on the bilingual's mindset at the time of assessment.

The CCC model further proposes that these dual-cognitive frameworks are linguistic in nature (Chiu & Chen, 2004), where cultural links exist among language, words, and meanings. That is, words in a given language point to specific meanings or words that are also connected to other meanings and words, and these links result in an understanding of specific aspects of the culture (Schwartz et al., 2014). For example, the word "school" (in English) may point to the word "study," and "study" could trigger the meaning of success. From this perspective, language serves an attention-driving function. Collectively, these cognitive and linguistic frames guide a bilingual's interpretation of stimuli such as a measure presented when assessing bilinguals.

This dynamic conceptualization of culture is further supported by the CFS phenomena. CFS proposes that bilinguals shift between their two sets of internalized cultural frames based on the cognitive meaning system or frame that is activated. Thus, bilinguals do not continuously rely on one specific cultural lens, but rather shift their interpretations and behavior according to the mental frame that is at the forefront of their mind (Hong et al., 2000). Moreover, CFS explains that activation of cultural knowledge occurs when a cultural construct is more cognitively accessible. Accessibility depends on the extent that a specific construct or piece of knowledge comes to mind. One way for this to occur is to prime cultural knowledge. Primes are constructs or stimuli that facilitate activation by setting off a spread of links between constructs that are psychologically associated (Hong et al., 2000; Luna et al., 2008). Because culture and language are interconnected, it stands that language serves as a strong prime for the activation of these cognitive structures.

As reviewed, the literature on response styles suggests that differences in responding on self-report measures exists between cultures (Robert et al., 2006). Some groups have been found to use ARS or ERS patterns, whereas other groups show no patterned responses at all. Considering

dynamic constructivism, I proposed that differences in responding to self-report measures could be observed within the same ethnic group—when specifically assessing bilinguals—because bilinguals possess dual cultural cognitive frameworks. It was expected that each of the bilingual's cultural frameworks would take turns influencing their interpretation of the self-report measure presented at the time of assessment. That is, because bilinguals' cultural cognitive frameworks are made up of domain-specific knowledge networks that are shared by individuals within the same culture (Benet-Martinez et al., 2002; Luna et al., 2008), it was assumed that bilinguals would respond in accordance with the cultural frame activated.

Consistent with the CCC model and CFS, I also posited that the language of the assessment influenced a bilingual's cultural framework and guided their responses accordingly. Specifically, because language points to specific aspects of the culture it derives from (Schwartz et al., 2014), bilinguals were expected to display the type of response style observed for the cultural group associated with the language in which the measure was written in. Because bilinguals can have internalized cultural frames that hold conflicting values, practices, and identities (Smith, 2004), the present study also held that respondents could display conflicting response styles. The literature on CFS supports the current study's assumption that bilinguals would switch from one response style pattern to a different (or no) patterned response based on the language presented (Benet-Martinez et al., 2002; Hong et al., 2000).

In summary, the perspective of dynamic constructivism and the CCC model explain how language and culture are inseparable. Moreover, CFS clarifies how bilinguals are able to shift between their two cultural frames or perspectives and how this shift between cultural lenses also changes their understanding of the world and of self. I aimed to add to the literature by proposing that the language of the measures presented at the time of assessment would cause bilinguals to experience a shift in their cultural frame, and consequently a shift in their values, resulting in response styles.

Language as a Predictor of Response Styles

As mentioned, there is some but limited research that has used bilingual groups to look at the effects of language on response styles. These studies suggest that bilinguals' responses are influenced by the language used in assessments (Ralston et al., 1995; Smith, 2004). One study that looked at bilinguals from 26 different countries, assigned participants to randomly answer questionnaires in either their native language or in English. This study found that bilinguals who answered in their native language used significantly more ERS than respondents who answered the English-language questionnaires (Harzing, 2006). This same study also found that even after controlling for sample demographics, country, and the interaction between country and language, language still remained a significant determinant of response style.

Overall, the literature suggests that bilingual differences in responding may be driven by the language of the assessment. Other studies that specifically sampled Latinx groups found that Latinx samples compared to Anglo/White samples used more ERS when completing questionnaires in Spanish versus English (Hui & Triandis, 1989). Another study found that both ARS and ERS were associated with greater reported use of the Spanish-language (Davis et al., 2011). Similarly, bilingual Latinx respondents who reported Spanish as their first language used more ERS than those who reported English as their first language (Gibbons et al., 1999). Interestingly, this latter study also found that Latinx participants used significantly more ERS on items rated as more meaningful.

In addition to differing response styles across languages, bilinguals also report differences in values and identity across languages. Previous studies have shown that bilingual individuals display greater endorsement of collectivist values, identify more strongly with their ethnic identity (Lechuga, 2008), and display different personalities (Ramírez-Esparza et al., 2006) depending on the language they are assessed in. Therefore, the current study also posited that in using a repeated-measures design, the same bilingual individual would endorse different values and engage in response styles depending on the language presented at the time of assessment.

Variables Mediating Language-Response Style Relationship

Although no study to date has looked at cultural values as mediating factors between the language-response style relationship on self-report measures, there is one study that has explored the association between Mexican American values and response styles (Davis et al., 2011). In this study, the values of *familismo*, *simpatía*, *machismo*, *la mujer* and *la mujer abnegada* were analyzed. The value of *familismo* refers to the value of having a high degree of loyalty, obligation to their families and community, as well as receiving and giving social support. *Simpatía* is a cultural script that conveys agreeableness, politeness, and respect in interpersonal interactions (Davis et al., 2011; Ramirez-Esparza, Gosling, & Pennebaker, 2008). *Machismo*, or manliness, refers to a male gender role characterized as aggressive, hypermasculine, and misogynistic. *La mujer* and *la mujer abnegada* refer to the extremes of the female gender role. Although both roles prioritize caring for their households and families, *la mujer* is viewed as capable and proactive, whereas *la mujer abnegada* is characterized as submissive, dutiful, and is seen as honorable due to the high care she provides for others at the expense of herself. Both *la mujer* and *la mujer abnegada* comprise the female concept of *marianismo*, which is characterized as a high degree of nurturance, humility, and submissiveness (Davis et al., 2011; Kulis et al., 2003).

Results found that ARS was positively associated with *familismo*, *simpatía*, and *la mujer abnegada* (Davis et al., 2011). The use of ARS serves to express agreeableness, deference to hierarchy, conformity, and serves as a strategy to favorably present the self, family, or community individuals represent (Johnson et al., 2005; Ross & Mirowsky, 1984). Thus, because *familismo*, *simpatía*, and *la mujer abnegada* emphasize loyalty, agreeableness, obligation, conflict avoidance, and deference, it holds that ARS serves as a behavioral manifestation of these cultural values. ERS was also found to be positively associated with *familismo*, *simpatía*, and *la mujer*, and negatively associated with *machismo* (Davis et al., 2011). ERS can be viewed as a more sincere form of answering given that the extremes of a Likert scale serve as “yes” and “no” answers (Hui & Triandis, 1989; Johnson et al., 2005; Marín et al., 1992). This response style, therefore, avoids

misunderstandings and promotes positive group interactions, which are important for individuals who value *familismo* and *simpatía*. Similarly, the positive relationship between the gender role of *la mujer* and ERS was expected (Davis et al., 2011) because females who endorse this gender role value strength and were therefore expected to express the strongest option available by using the ends of a Likert-type scale (Davis et al., 2011; Johnson et al., 2005, Smith et al., 2016). It should be noted that only female respondents were given this measure and that only male respondents were given the *machismo* scale, which was negatively associated with ERS (Davis et al., 2011). This latter finding may have been due to the priming effect of the questions on the machismo scale relating to emotional restraint—these questions may have primed respondents to use more middle-range responses (Davis et al., 2011). Previous research has suggested that middle-range response styles are reflective of responders' need to convey moderation (Chen, Lee, & Stevenson, 1995). Though this possible result may not be directly related to the current study, it does support the claim that response styles can be primed.

Based on these findings, I explored the cultural values of *familismo*, *simpatía/respeto*, and traditional gender roles as potential mediators of the association between language and response styles. As mentioned, ARS has been found to be positively associated with *familismo* and *simpatía* (Davis et al., 2011; Johnson et al., 2005) because this response style conveys deference to hierarchy and promotes positive interactions. The values of *familismo* and *simpatía* have also been shown to correlate with ERS. These results have been explained as a behavioral manifestation of straightforward and sincere responding which helps promote agreeableness and positive relationships (Marín et al., 1992). Moreover, I explored the general endorsement of traditional gender roles to encompass the views of both female and male bilingual respondents. In comparison to the study reviewed above (Davis et al., 2011), where only female participants completed *la mujer* and *la mujer abnegada* subscales and only male participants completed the *machismo* subscale, I assessed all bilingual respondents' views on gender roles to provide a broader picture of the influence that gender roles have on the language-response style relationship. Collectively, I proposed that Spanish

(vs. English) would predict stronger endorsement of *familismo*, *simpatía*, and traditional gender roles, which would predict greater ARS and ERS.

I also explored two other culturally relevant values not assessed in the Mexican American cultural values study discussed above (Davis et al., 2011): power distance and allocentrism. Power distance refers to the perception that a great distance exists between individuals from the lower strata of society and the upper strata of society (Chiou, 2001). Research points to mixed findings between ARS and power distance. One study found that ARS was negatively correlated with power distance (Johnson et al., 2005), such that respondents who engaged in ARS did not accept that power and control are unequal in society. On the other hand, some studies have found a positive relationship between ARS and country-level measures of power distance (Hofstede, 2001). Respondents from cultures that are high in power distance (which tend to stress submissiveness and conformity) engage in ARS because acquiescent responding serves as a submissive response style that conveys deference and agreeableness (Johnson et al., 2005; Marín et al., 1992). For example, Mexican Americans acquiesce as an adaptive strategy to show deference and conformity in an American-dominant society. For my thesis, I predicted that a positive relationship between power distance and ARS was more likely for Mexican Americans than a negative one because the study that found a negative relationship between power distance and ARS only sampled Mexican individuals living in Mexico (Johnson et al., 2005), and Mexicans and Mexican Americans have different dominance and status in their respective countries. Therefore, I proposed that Spanish (vs. English) would predict greater endorsement of power distance, which would predict greater ARS for bilingual Mexican Americans.

The literature suggests that extreme responding is positively associated with power distance (Johnson et al., 2005), and power distance scores are high in Latinx countries (Hofstede & McCrae, 2008). These findings could have been found because large power differentials within high power distance cultures may call for more decisive and direct forms of communication. Therefore, engaging in ERS would serve as an adaptive strategy for respondents in these cultures to communicate

appropriately (Harzing, 2006; Johnson et al., 2005). Based on this previous research, I proposed that Spanish (vs. English) would predict greater endorsement of power distance, which would predict greater ERS for bilingual Mexican Americans.

Allocentrism refers to the attribute of valuing groups and ingroup goals, and endorsing a collectivist self-concept (Carpenter & Radhakrishnan, 2002). Allocentrism is related to collectivism (Davis et al., 2011), which refers to groups that emphasize interdependence, relationships, and ingroup norms (Carpenter & Radhakrishnan, 2000; Davis et al., 2011). However, allocentrism functions at the individual level, whereas collectivism functions at the cultural level. The literature points to a positive link between ARS and collectivism (Harzing, 2006; Johnson et al., 2005; Smith et al., 2016) because both collectivistic and allocentric values and ARS serve to prioritize interdependence, harmony, deference to hierarchy, and conformity (Johnson et al., 2005; Ross & Mirowsky, 1984). For example, Mexican American respondents may feel pressured to represent their family or group in a positive light and therefore, engage in ARS as a means to enhance their group standing (Ross & Mirowsky, 1984). Thus, ARS serves to behaviorally display allocentrism and collectivism. Based on these previous findings, I proposed that Spanish (vs. English) would predict greater endorsement of allocentrism, which would predict greater ARS for bilingual Mexican Americans.

Studies on collectivism and response styles have shown that ERS is negatively associated with collectivism (de Jong et al., 2008) and positively associated with individualism (Chen et al., 1995). Because collectivist countries promote group cohesiveness, are characterized by avoidance of confrontation, and are concerned with group harmony (Harzing, 2006), it holds that respondents from these countries would not respond in an ERS form. Those from individualistic countries, on the other hand, value the expression of strong opinions and self-expression making them most likely to engage in an extreme response style as a means to express their opinions with certitude by using the ends of a Likert scale as “yes” and “no” answers (Johnson et al., 2005, Smith et al., 2016). Therefore, based

on these previous findings, I proposed that Spanish (vs. English) would predict greater endorsement of allocentrism, which would predict less ERS for bilingual Mexican Americans.

CHAPTER 2

CURRENT STUDY

In reviewing the research on response styles and the possible mediators driving the language-response style relationship, it is apparent that cultural variables have a significant influence on responding and that language serves to prime these values. As reviewed, Latinx respondents use ARS and ERS significantly more than Anglo respondents. Further, the Spanish language is more often correlated with ARS and ERS compared to the English language. ARS and ERS have also been associated with the Latinx cultural values of *familismo*, *simpatía*, traditional gender roles, power distance, and allocentrism.

The aim of this study was to attempt to explain why bilinguals respond in these patterned forms. I intended to clarify this language-response style relationship by proposing that language would prime the bilinguals' cultural mental frames containing the values associated with the language presented, resulting in the expected response styles. In other words, I hypothesized that the cultural values (*familismo*, *simpatía*, traditional gender roles, power distance, and allocentrism) elicited by the language of the questionnaire (Spanish vs. English) would mediate the relationship between language (Spanish vs. English) and response styles (ARS and ERS).

Overall, the current study attempted to demonstrate that exposing bilingual respondents to their heritage-language would elicit the bilingual's heritage-culture mental frame and influence the endorsement of heritage-culture values. Theoretically, because bilinguals' heritage-culture values would be primed through language, bilingual respondents would engage in the response style previous research has found to be correlated with the primed cultural value. Specifically, a Spanish-language prime would elicit Latinx cultural values (*familismo*, *simpatía*, traditional gender roles, power distance, and allocentrism), which would activate the corresponding response style (greater ERS—with the exception of allocentrism—and greater ARS). Conversely, exposure to the dominant-culture language would elicit bilinguals' dominant-culture mental frame, and therefore influence respondents' endorsement of dominant-culture values. Again, this should have theoretically resulted in bilingual

respondents engaging in the type of response styles previous research has found. That is, an English-language prime would elicit American cultural values (e.g., lower power distance, individualism, non-traditional gender roles), which would activate the corresponding response style (i.e., less ERS and less ARS). The current study contributed to the literature by using a repeated-measures design to assess within-subjects differences among a Mexican American bilingual sample.

CHAPTER 3

METHOD

Participants

Participants were Mexican American bicultural undergraduate students at a large, public university in southern California. Participants' bilingualism was assessed using the Spanish subtest of the California Subject Examinations for Teachers (CSET: Spanish, n.d.) Only participants who scored an 80% or higher were included in the study ($N = 87$). The mean age of participants was 18.84 years ($SD = 1.66$), 77% of participants identified as female, and 23% identified as male. Approximately 74% of participants were born in the U.S., and the 26% of participants who were not United States born had been in the country for at least 14 years.

Assessments and Measures

Latino/Anglo Cultural Value Scales (LCVS)

Participants completed five of the six subscales of the Latino/Anglo Cultural Value Scales (LCVS; Benet-Martínez & Santana, 2004). The original 26-item measure is composed of six subscales that assess the Latinx cultural values of *familismo*, *simpatía/respeto*, gender roles, power distance, allocentrism, and time orientation, as well as two items assessing cultural identity. This measure has been previously used with a Mexican American undergraduate sample (see Garcia Peraza et al., 2021). For my thesis, I used the following subscales: *familismo* (e.g., "I often feel I should make sacrifices in my personal life for my family members"), *simpatía/respeto* (e.g., "It is usually better to be over-dressed for an event than not dressed up enough"), gender roles (e.g., "It is natural for a husband to have more freedom than a wife"), power distance (e.g., "I usually try not to correct older people because I might embarrass them"), and allocentrism (e.g., "I usually hide my true feelings about people whom I do not like in order to have smooth interactions with them"). I did not use the time orientation subscale or the cultural identity items. Each subscale consists of three items. Participants responded to each item using a 5-point Likert-type response scale, ranging from 1 (strongly disagree) to 5 (strongly agree), with 3 (neutral) as the midpoint. I computed a subscale

score for each cultural value. The internal consistency reliability for each subscale in Spanish ranged from below acceptable to good: $\alpha_{familismo} = .42$, $\alpha_{simpatía} = .35$, $\alpha_{gender\ roles} = .84$, $\alpha_{power\ distance} = .40$, and $\alpha_{allocentrism} = .64$. Furthermore, the internal consistency reliability for each subscale in English ranged from below acceptable to good: $\alpha_{familismo} = .28$, $\alpha_{simpatía} = .32$, $\alpha_{gender\ roles} = .83$, $\alpha_{power\ distance} = .36$, and $\alpha_{allocentrism} = .61$.

Bicultural Identity Integration Scale-1 (BIIS-1)

Participants also completed the Bicultural Identity Integration Scale-1 (BIIS-1; Benet-Martinez & Haritatos, 2005) as indices of response styles. This 8-item measure consists of two separate 4-item subscales that assess participants' cultural blendedness (versus distance) and cultural harmony (versus conflict). Cultural blendedness refers to a bicultural individual's degree of perceived overlap between their two cultures versus their perceived compartmentalization or dissociation (i.e., distance) between their two cultures (e.g., "I feel Mexican American" and "I am simply a Mexican who lives in America"). Cultural harmony refers to a bicultural individual's degree of perceived compatibility between their two cultures versus their perceived incompatibility or clash (i.e., conflict) between their two cultures (e.g., "I am conflicted between the American and Mexican ways of doing things" and "I don't feel trapped between Mexican and American cultures"). Note that I am not examining these two constructs directly; rather, I am using the BIIS-1 to compute indices of ERS and ARS. I chose the BIIS-1 because half the items are reversed-coded, and reverse-coded items allowed me to identify true ARS patterns (see Baumgartner & Steenkamp, 2001) because participants cannot validly agree or strongly agree with all items in the measure (i.e., agreeing with both example items would be contradictory). Participants responded to each item using a 5-point Likert-type response scale, ranging from 1 (strongly disagree) to 5 (strongly agree), with 3 (neutral) as the midpoint.

Operational Definitions

Language of the questionnaire was my within-subjects independent variable, and ERS and ARS were my dependent variables. ERS was operationalized as the frequency of endorsing the ends of the Likert-type scale (1 or 5). Specifically, I calculated the ERS index as the frequency with which

respondents strongly agree or strongly disagree with questionnaire statements (see Baumgartner & Steenkamp, 2001; Chen et al., 1995; Hui & Triandis, 1985) across all 8 items of the BIIS-1. ARS was operationalized as the frequency with which participants agree or strongly agree with (4 or 5) to regularly keyed and reverse-coded items [e.g., “I feel part of a combined culture” and “I keep Mexican and American culture separate” (reverse-coded)] on the BIIS-1 scale (see Baumgartner & Steenkamp, 2001).

Procedure

Mexican American bicultural bilingual students were recruited from an introductory psychology course. Participants were randomly assigned to the English (or Spanish) language condition at Time 1 and the Spanish (or English) language condition at Time 2. The English and Spanish conditions were administered to bilingual participants in a one-on-one lab setting approximately one week apart. During each condition, participants completed the LCVS, BIIS-1, and a demographics questionnaire. Items included in the demographics questionnaire asked about age, gender, country of birth, and years in the United States. For gender and country of birth participants were given binary responses to choose from (i.e., Gender: [a] Female [b.] Male; Were you born in the U.S.? [a.] Yes [b.] No). For age and years in the United States, participants were provided a blank line to fill in their responses (i.e., Age: _____; If you were not born in the U.S., what year did you arrive in the U.S.? _____)

CHAPTER 4

RESULTS

Table 1 contains a correlation matrix and Table 2 contains descriptive statistics for all study variables. To test my hypothesis that cultural values mediate the association between language and response styles, I conducted ten repeated-measures mediational analyses using MEMORE macros for SPSS with the language of the questionnaire (Spanish vs. English) as the predictor variable, cultural values as mediating variables (one mediator at a time), and response styles (ARS and ERS) as criterion variables (one criterion variable at a time).

For the cultural values of *familismo*, *simpatía*, gender roles, and power distance, I expected that responding in Spanish (vs. English) would predict greater value endorsement, which would predict greater ARS and ERS. My results from the model with *simpatía* mediating the language-ARS association indicated that there is a significant indirect effect of language on ARS through *simpatía* ($b = -.50$, 95% CI [-.22, -.01]). That is, the Spanish language primed greater endorsement of *simpatía*, but *simpatía* predicted less ARS, not greater ARS as expected (see Figure 1). The mediational models with *familismo*, *simpatía* (language-ERS relationship), gender roles and power distance were non-significant (see Figures 2-7).

For the cultural value of allocentrism, I expected that responding in Spanish (vs. English) would predict greater value endorsement, which would predict greater ARS but lower ERS. These two mediational models were non-significant because allocentrism did not predict ARS or ERS (see Figures 8 and 9). Therefore, my hypothesis was partially supported, with only results for *simpatía* supporting my hypothesis.

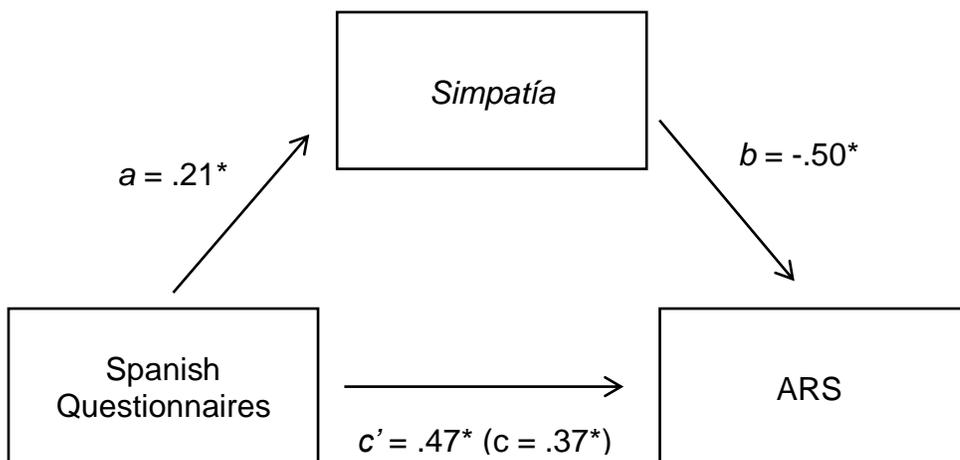
Table 1. Descriptive Statistics and Correlations for Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. ERS English Index	—	-.67**	.70 **	-.42 **	-.12	-.08	.03	.08	-.03	-.14	.27 *	.22 *	.13	.28**
2. ARS English Index	-.67 **	—	-.66 *	.64 **	-.07	.08	.08	.06	.13	.22*	-.15	-.14	-.11	-.21
3. ERS Spanish Index	.70 **	-.66**	—	-.76 **	-.17	-.05	-.17	.01	-.01	-.07	.20	.23 *	.09	.17
4. ARS Spanish Index	-.42 **	.64 **	-.76 **	—	-.10	.04	.21	.00	.06	.10	-.12	-.21	-.03	-.15
5. <i>Familismo</i> —English	-.12	-.14	-.29 **	.21	—	.53 **	.37 **	.23 *	.19	.13	.27 *	.19	.17	.07
6. <i>Familismo</i> —Spanish	-.08	.08	-.06	.04	.53 **	—	.10	.25 *	.32 **	.39 **	.11	.15	.20	.20
7. <i>Simpatía</i> —English	.04	.08	-.17	.21	.37 **	.10	—	.46 **	.09	.01	.04	.06	.25 *	.17
8. <i>Simpatía</i> —Spanish	.08	.06	.01	.00	.23 *	.26 *	.46 **	—	.18	.14	.16	.08	.30 **	.41 **
9. Gender Roles—English	-.03	.13	-.01	.06	.19	.32 **	.09	.18	—	.82 **	.07	.17	.28 **	.14
10. Gender Roles—Spanish	-.14	.22*	-.07	.10	.14	.01	.01	.14	.82 **	—	.08	.09	.19	.08
11. Allocentrism —English	.27 *	-.15	.20	-.12	.27 *	.04	.04	.16	.07	.08	—	.60 **	.15	.20
12. Allocentrism—Spanish	.22 *	-.14	.23 *	-.21	.19	.06	.06	.08	.17	.09	.60 **	—	.21	.16
13. Power Distance—English	.13	-.11	.09	-.03	.17	.25*	.26 *	.30 **	.28 **	.19	.15	.21	—	.65 **
14. Power Distance—Spanish	.28* *	-.21	.17	-.15	.11	.17	.15	.41 **	.14	.08	.20	.16	.65 **	—

Note: **Correlation is significant at the 0.01 level (2-tailed)

Table 2. Descriptive Statistics for Cultural Values and Response Styles by Language Condition

	Spanish		English	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Familismo</i>	3.29	.68	3.29	.66
<i>Simpatía</i>	3.53	.69	3.34	.60
Gender Roles	1.63	.86	1.74	.90
Power Distance	3.61	.55	3.77	.57
Allocentrism	4.19	.52	4.05	.57
ARS	3.03	1.80	2.67	1.86
ERS	3.48	2.10	2.98	2.31



Indirect effect, $b = -.10$, CI [-.22, -.01]

* $p < .05$

** $p < .001$

Figure 1. Language-ARS Relationship Mediated by *Simpatía*

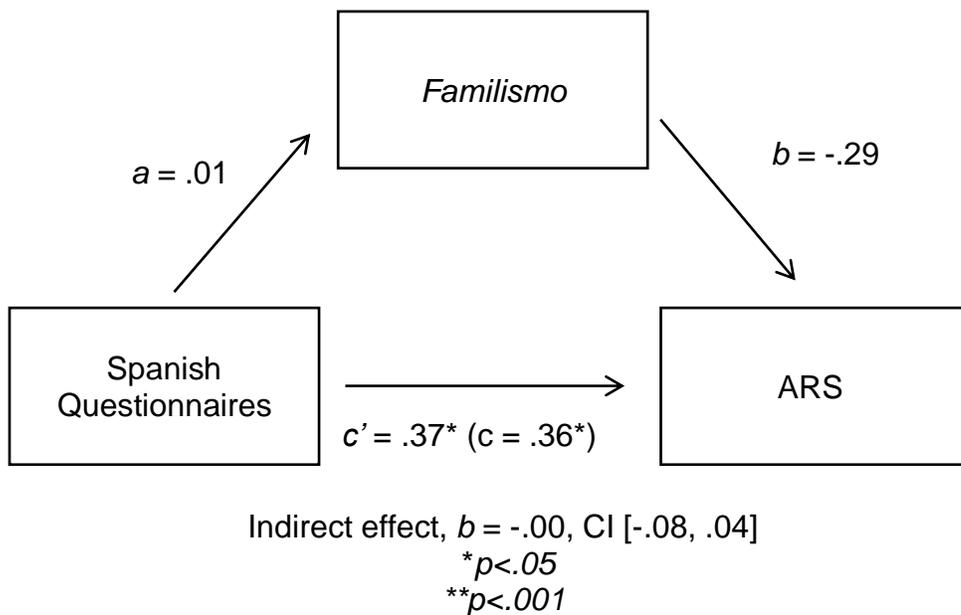


Figure 2. Language-ARS Relationship Mediated by *Familismo*

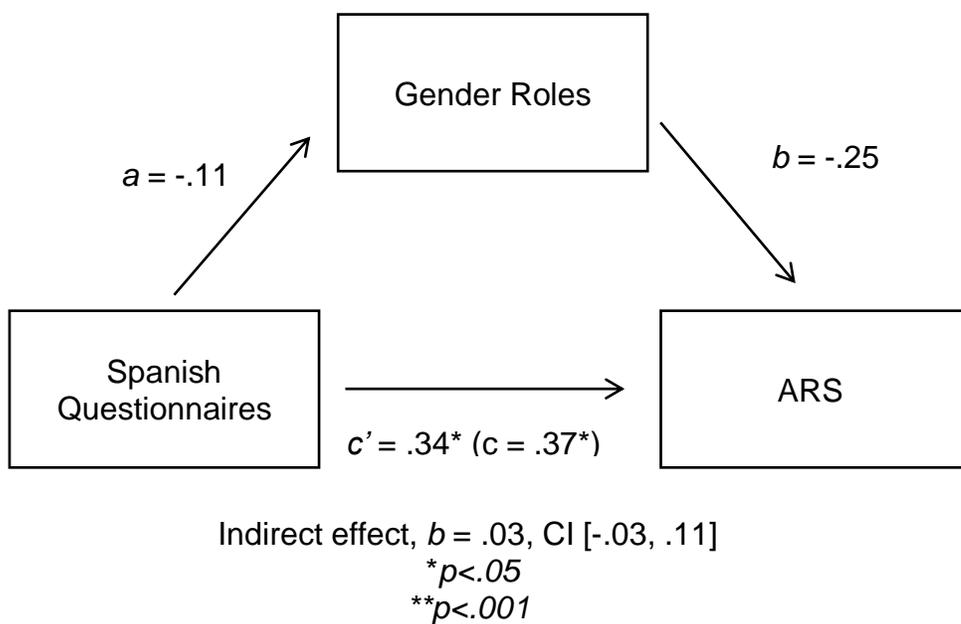


Figure 3. Language-ARS Relationship Mediated by Gender Roles

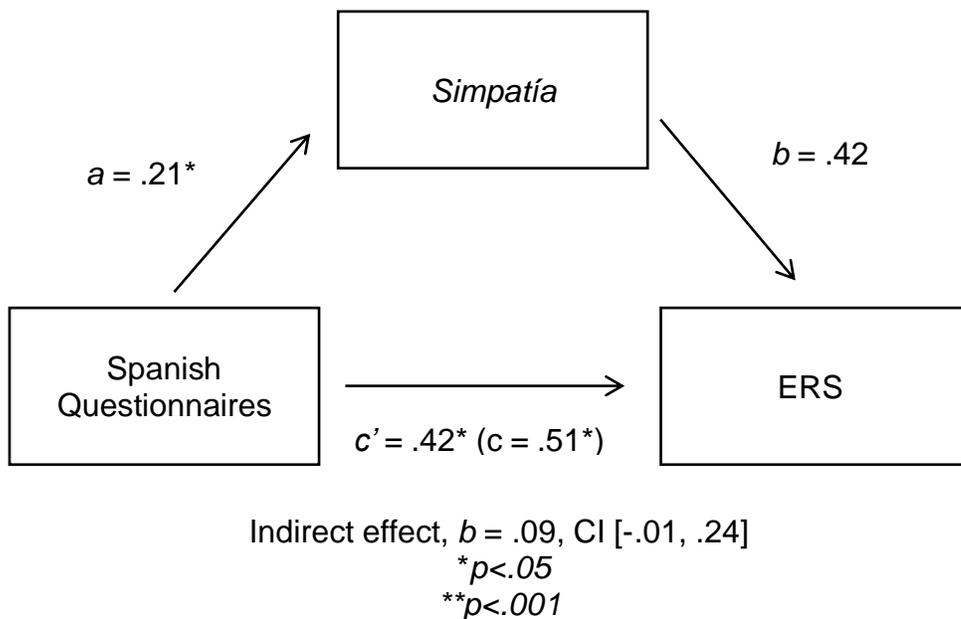


Figure 4. Language-ERS Relationship Mediated by *Simpatía*

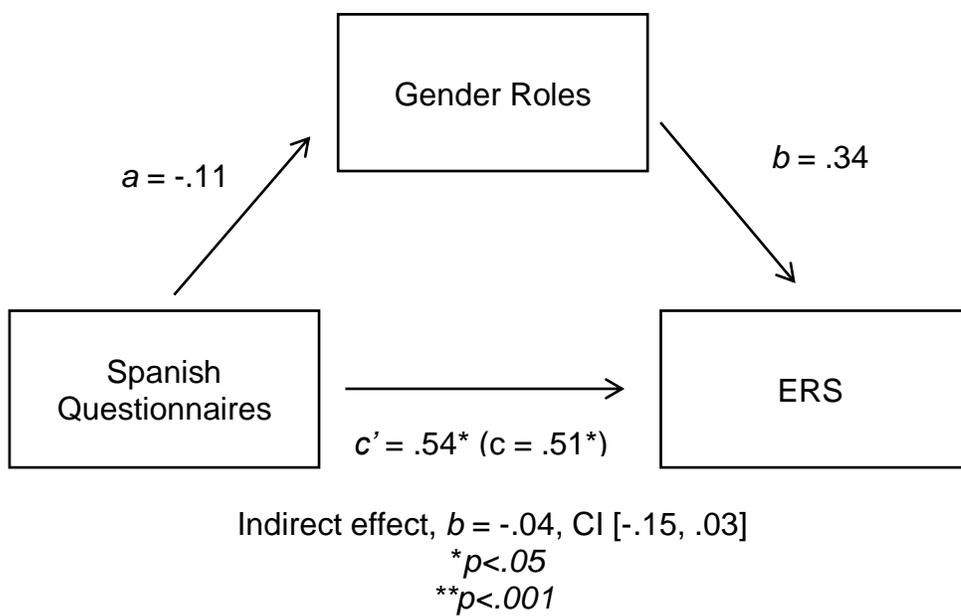


Figure 5. Language-ERS Relationship Mediated by Gender Roles

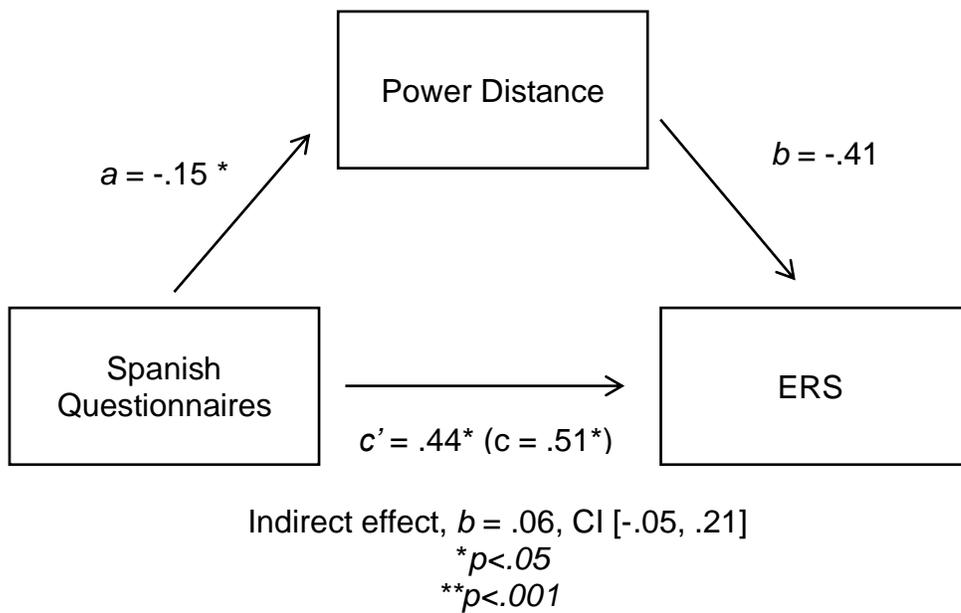


Figure 6. Language-ERS Relationship Mediated by Power Distance

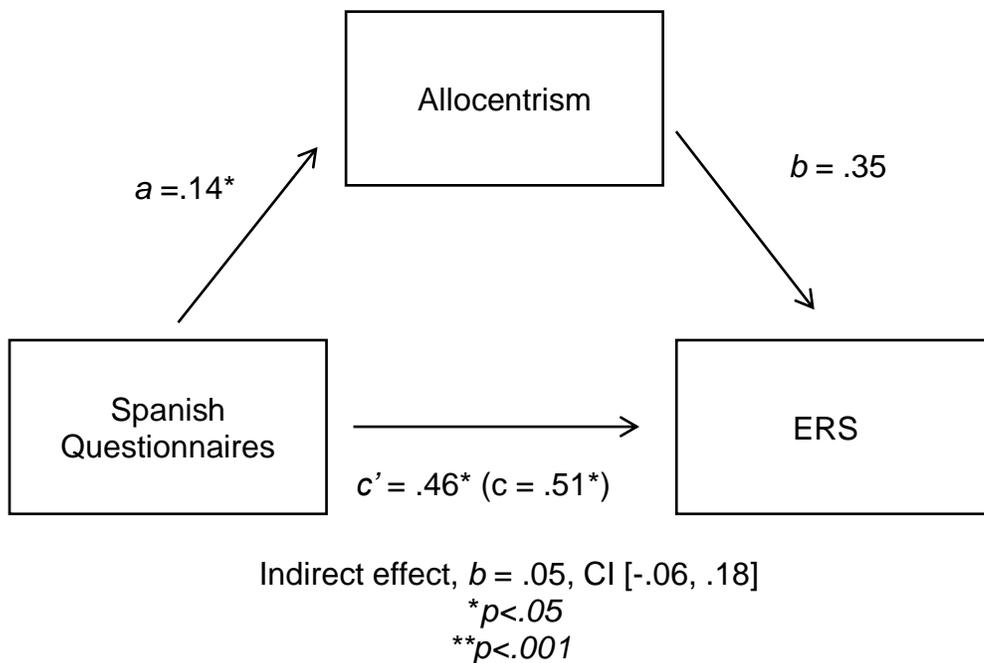


Figure 7. Language-ERS Relationship Mediated by Allocentrism

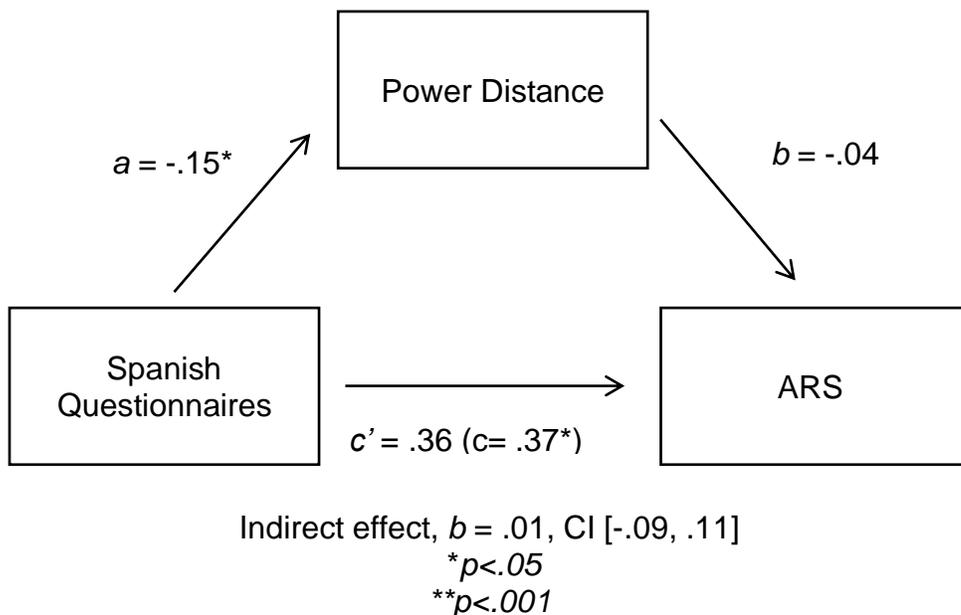


Figure 8. Language-ARS Relationship Mediated by Power Distance

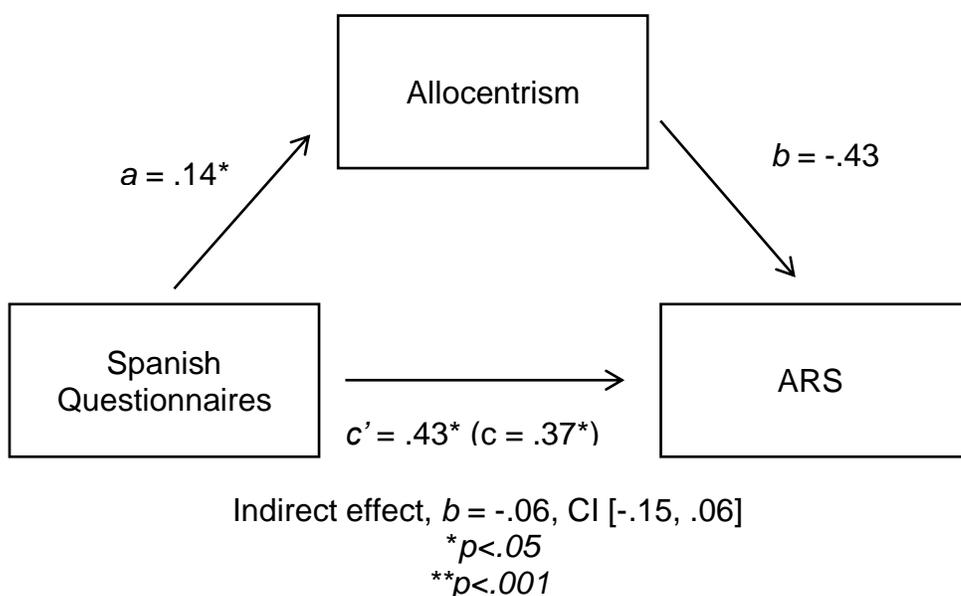


Figure 9. Language-ARS Relationship Mediated by Allocentrism

Though the majority of my mediational models were non-significant, the path analyses of these models indicate that there were significant language effects on some cultural values and response styles. As expected, participants more strongly endorsed the Mexican American cultural value of *simpatía* when responding in Spanish than in English. Contrary to expectations, participants endorsed less power distance on Spanish-language questionnaires than on English-language questionnaires.

As expected, participants also more strongly endorsed the Mexican American cultural value of allocentrism when responding in Spanish than in English. As expected, participants engaged in greater ARS and ERS on Spanish-language questionnaires than on English-language questionnaires (see Table 2 for means). Lastly, there was also one significant relationship between a cultural value and response style. Specifically, *familismo* was positively related to ERS (see Figure 10).

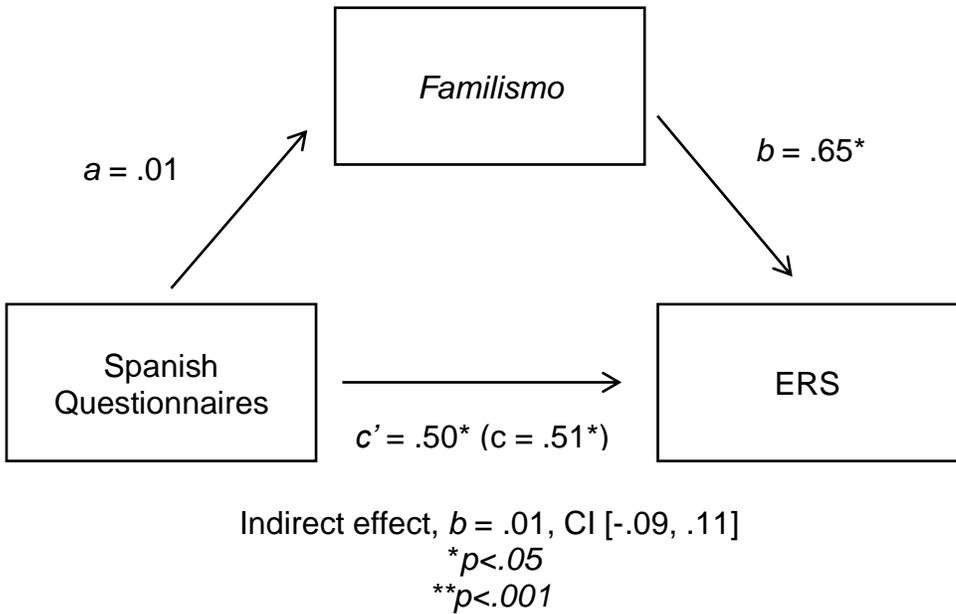


Figure 10. Language-ERS Relationship Mediated by Familismo

CHAPTER 5

DISCUSSION

The literature on response styles suggests that patterned forms of responding are fairly prevalent among racial/ethnic minority groups (Bachman & O'Malley, 1984; Cheung & Rensvold, 2000). Although it is understood that response styles occur and differ both within and between cultures, the knowledge of why and how response styles manifest within bicultural bilingual population datasets is limited because few studies have explored this area of research. To date, no study had used a mediational approach to explain this phenomenon. Because response styles impact the inferences that can be made about test results when comparing between and within cultures, the present study aimed to contribute to the literature by proposing that bilinguals' cultural values serve as the mediating variable between language and response styles for Mexican American bilingual participants.

My hypothesis that Spanish-language (vs. English-language) questionnaires would prime greater *familismo*, *simpatía*, gender roles, power distance, and allocentrism, which would predict greater ARS and ERS was partially supported. My results suggest that *simpatía* indeed mediates the language-ARS relationship. This association between *simpatía* and ARS, however, was in the opposite expected direction. That is, greater endorsement of the *simpatía* cultural value predicted less ARS engagement. It was proposed that the use of ARS expresses agreeableness and serves as a strategy to favorably present the self, family, or community the individual represents. However, my results suggest that this may not be the case.

Although all other mediational models were non-significant, some important findings came to light. Contrary to expectations, there were no language effects on *familismo*, but I did find a positive association between *familismo* and ERS. As proposed, the "yes" and "no" responses of ERS (Hui & Triandis, 1989; Johnson et al., 2005; Marín et al., 1992) may signal sincerity, and this sincerity promotes positive group interactions (congruent with the value of *familismo*). Consistent with previous studies (Davis et al., 2011; Smith et al., 2016), I also found that participants displayed stronger

endorsement of *simpatía* on Spanish-language questionnaires than on English-language questionnaires. In addition, contrary to expectations, there were no language effects on traditional gender roles. Contrary to previous findings (Davis et al., 2011; Hofstede, 2001) and my prediction, respondents displayed greater endorsement of power distance on English-language questionnaires than on Spanish-language questionnaires. Moreover, congruent with previous findings (Davis et al., 2011; Smith et al., 2016), participants in my study also showed stronger endorsement of allocentrism on Spanish-language questionnaires than on English-language questionnaires. Lastly, congruent with previous studies (Harzing, 2006; Hui & Triandis, 1989), I also found that participants used greater ARS and ERS on Spanish-language questionnaires than on English-language questionnaires.

Further, some cultural values (i.e., gender roles, power distance, allocentrism) could not mediate the language-response style association because these values did not predict response styles in my study. One possible reason why no relationship was found between these cultural values and response styles is that some values may serve to continuously influence bilinguals such as *simpatía*, while others do not. Specifically, it is possible that gender roles, power distance, and allocentrism may be more relevant in larger settings versus in a one-on-one interaction between the participant and the research assistant. Therefore, although Spanish elicits greater endorsement of gender roles, power distance, and allocentrism, it may not necessarily translate to greater ARS or ERS when answering to self-report measures in a research setting.

In addition, some cultural values (i.e., *familismo* and gender roles) could not mediate the language-response style association in my study because there were no language differences in these values. This finding may in part be due to the effects of stereotype threat. Stereotype threat is defined as a sociopsychological threat that is triggered by the notion that a negative stereotype about an individual's in-group could be confirmed (Liu et al., 2021). Because traditional gender roles are typically seen as misogynistic or sexist, it is possible that respondents purposefully endorsed less traditional gender roles when responding to Spanish-language questionnaires. Similarly, the *familismo* subscale, though not at first glance, may have triggered negative stereotypes in my

bicultural participants. For example, the item that states, “I would do what would please my family, even if I disliked the activity,” could be interpreted as being submissive. Because my sample is bicultural and they also hold dominant-culture values, the idea that Mexicans or Mexican Americans are submissive is seen as a negative stereotype. This would result in participants purposefully endorsing less *familismo* values.

Another possible reason why *familismo*, traditional gender roles, power distance, and allocentrism did not mediate the language-response style relationship may be due to assimilation and contrast effects. Assimilation refers to a bicultural individual's culturally congruent response to a cultural prime (e.g., use extreme responding as expected when primed with Mexican values; Cheng et al., 2006). On the other hand, contrast effects occur when bicultural individuals respond to primes in a culturally incongruent manner (e.g., not engage in extreme responding as expected when primed with Mexican values). It is possible that some participants engaged in assimilation while others experienced a cultural reactance (i.e., displayed contrast effects) when responding to the Spanish-language questionnaire resulting in a non-significant relationship between these cultural values and response styles.

Lastly, research shows that power distance and allocentrism tend to be cultural values that are more common among Asian populations (e.g., Japanese, Indian, Malaysian) than Latinx populations (Johnson et al., 2005; Triandis et al., 1995). It is possible that these values did not predict greater ARS or ERS because they are not values that are relevant or important to Latinx participants to the extent that they would predict behaviors such as ARS or ERS.

CHAPTER 6

LIMITATIONS AND FUTURE RESEARCH

My study is not without limitations. First, my study sample consists of students at a large university where the majority take courses taught in English, read books and complete assignments written in English, and participate in group and class discussions in English. Therefore, this group of bicultural bilinguals are greatly exposed to and immersed in mainstream American culture. This experience may not be true for the general bilingual bicultural Mexican American population living the United States. Moreover, my sample may also not reflect the general university student population because my sample came from a Hispanic-serving institution. This suggests that Mexican American participants in this study are likely to be exposed to other Mexican Americans while on-campus. Therefore, future studies should investigate whether my findings replicate in other bilingual Mexican American samples and with Mexican American students at other universities, including predominantly White institutions.

Second, my ARS and ERS indices were not ideal; the BIIS-1 from which I computed ARS and ERS indices were not intended to assess response styles. Previous research has suggested that ARS and ERS indices should be composed of items that are meant to specifically measure response styles (e.g., Baumgartner & Steenkamp, 2001; Cabooter et al., 2017). These studies have constructed indices where question items are random and not correlated to each other. Moreover, previous studies have noted that “non-overlapping indices” are best to use when assessing response styles (Hamamura et al., 2008). This means that the same items should not be used when constructing different response style indices (ARS vs. ERS). It has also been suggested that multiple assessment methods (i.e., response style indices based on standard deviations or proportions in addition to frequencies like I used in this study) should be used to accurately detect patterned forms of responding (Baumgartner & Steenkamp, 2001; Hamamura et al., 2008). Therefore, future studies should examine cultural values as a mediator of the language-response style association using improved assessments of ERS and ARS.

Though these limitations are important to consider, my study provided valuable insights on the response styles of bicultural bilingual Mexican Americans. Because *simpatía* was the only cultural value that relates to response styles, future research may want to focus on understanding what makes this cultural value different from the others when it comes to response styles.

CHAPTER 7

CONCLUSION

My study has contributed to the literature by identifying *simpatía* as a mediating variable in the language-ARS relationship. My results also further support previous findings that participants engage in greater ARS and ERS when responding to Spanish-language questionnaires compared to English-language questionnaires. Moreover, my study found that Spanish-language questionnaires increase the endorsement of some Mexican American cultural values compared to English-language questionnaires. Overall, my study serves to remind researchers and practitioners of the importance of considering response styles, both as an area of research and as a factor in the assessment of bicultural bilingual populations.

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