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Ethnic Group Political Efficacy: Scale Development and Latino Political Participation

By

Norma Elizabeth Garza Reyes

May 2023

Submitted in partial fulfillment of the requirements for the degree of  
Doctor of Philosophy in Experimental Psychology  
At The University of Texas at Arlington

Dissertation Defense

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Dissertation Committee:

Lauri A. Jensen-Campbell, PhD (Chair)

Jared B. Kenworthy, PhD

Erin Q. Austin, PhD

Angela Liegey-Dougall, PhD

Xavier Medina Vidal, PhD

## GROUP POLITICAL EFFICACY AND LATINO VOTE

### **Abstract**

Latinos have grown to be the largest ethnic minority group in the U.S. since the 2000 U.S. Census count but have historically voted at lower numbers compared to White Americans. Two studies examined a new construct, ethnic group political efficacy (GPE), to understand better marginalized groups voting participation. Study 1 developed a group political efficacy scale (GPE). Using exploratory factor and item response theory analysis, results revealed that the scale has three factors: internal, external, and power GPE. More importantly, minorities' voting intent was partially explained by ethnic GPE. Next, a focal second short-term longitudinal study with an online national sample of Latinos was conducted to examine Latino GPE further. Ethnic GPE was experimentally manipulated by priming participants' ethnicity and asking them to make a plan to vote for themselves and someone close to them. Study 2 results replicated and confirmed the scale development of ethnic GPE. Additionally, although participants in the treatment conditions were not more likely to vote in the midterm, they were more likely to vote with someone else instead of going alone and reported they would take someone to vote with them in the future. Findings suggest that politicians need to highlight the collectivism (group) in Latino culture when getting out the vote.

*Keywords:* political efficacy, voter participation, self-identification, groups, Latinos

## GROUP POLITICAL EFFICACY AND LATINO VOTE

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## GROUP POLITICAL EFFICACY AND LATINO VOTE

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## GROUP POLITICAL EFFICACY AND LATINO VOTE

### DEDICATION

Para mi familia y comunidad, siempre están en mi corazón.

Los amo.

For my family and community, you are always in my heart.

I love you.

# GROUP POLITICAL EFFICACY AND LATINO VOTE

## TABLE OF CONTENTS

TITLE PAGE	
ABSTRACT	
ACKNOWLEDGEMENTS	
DEDICATION	
LIST OF TABLES	
CHAPTER ONE: Introduction	1
Latino Political Participation	1
Self-Identification	4
Group Consciousness	5
Collective Action	8
Social Capital	9
Self-Efficacy	11
Political Efficacy	12
CHAPTER TWO: STUDY 1	17
Method	17
Results	19
Discussion	29
CHAPTER THREE: STUDY 2	32
Method	32
Results	40
CHAPTER FOUR: General Discussion	48
Limitations	54
Conclusion	55
REFERENCES	57
FIGURES	97
APPENDICES	107
Appendix A – Scales	
Appendix B – Socioeconomic Index	

# GROUP POLITICAL EFFICACY AND LATINO VOTE

## LIST OF TABLES

### Table

1. Initial Items on Ethnic Group Political Efficacy Scale
2. Factor Loadings for GPE Scale
3. GPCM Estimates for Item Discrimination and Category Threshold for Internal GPE
4. GPCM Estimates for Item Discrimination and Category Threshold for External GPE
5. GPCM Estimates for Item Discrimination and Category Threshold for Power GPE
6. Statistics for the Differential Analysis by Each Facet of GPE
7. Intercorrelations with Group Political Efficacy
8. Ethnic GPE predicting group self-investment
9. Ethnic GPE predicting group self-definition
10. Ethnic GPE predicting group persuasion
11. Ethnic GPE predicting mid-term voting intentions
12. Personal and Group Political Efficacy as a Mediator for Intention to Vote
13. Personal and Group Political Efficacy as a Mediator for Self-Investment
14. Personal and Group Political Efficacy as a Mediator for Self-Definition
15. Personal and Group Political Efficacy as a Mediator for Persuasion
16. Personal and Group Political Efficacy as a Mediator for Political Knowledge
17. Participant Demographics for Study 2
18. Latin America Family Roots
19. Descriptive and Reliability Statistics for Individual Predictors and Outcome Variables at Time 1 (Pre-election)
20. Descriptive and Reliability Statistics for Individual Predictors and Outcome Variables at Time 2 (Post-election)
21. Fit Indices for Confirmatory Factor Analyses of Ethnic Group Political Efficacy Scale
22. Factor Loadings from Confirmatory Factor Analysis of Ethnic Group Political Efficacy
23. Study 2, Time One Intercorrelations with Group Political Efficacy
24. Study 2, Time Two Intercorrelations with Group Political Efficacy
25. Multivariate Regression with the Three Outcomes of Ethnic GPE at Time 1
26. Hierarchical Logistic Regression Results for Intent to Vote
27. Hierarchical Logistic Regression Results for Voting
28. Hierarchical Logistic Regression Results for Political Participation
29. Direct Effects of Ethnic GPE on Political Participation and Voting as part of SEM Model
30. Indirect Effects of Ethnic GPE on Political Participation and Voting via Vote Action as part of SEM Model



## **Introduction**

The United States does not have compulsory voting laws like other countries do. Even though the United States is a democratic developed country, the voting turnout in the U.S. lags many similar developed countries (DeSilver, 2020). The voter turnout in the United States has remained relatively constant since 1976, ranging from approximately 50% to 58% (DeSilver, 2020). Even more concerning, certain marginalized groups have continued to vote in meager numbers, such as Latinos and non-Latino Asians, compared to non-Latino White and non-Latino Black Americans. For example, Latinos have grown to be the largest ethnic minority group in the U.S. since the 2000 U.S. Census count (Jensen et al., 2021) but continue to be underrepresented and marginalized in politics. Although the 117<sup>th</sup> Congress is the most racially and ethnically diverse, Latinos only comprise 9% of Congress, compared to 19% of the general population (Schaeffer, 2021).

### **Latino political participation**

Latinos were projected to be the largest ethnic minority group in the US electorate, accounting for approximately 13% of eligible voters (Cilluffo & Fry, 2019). Nevertheless, Latinos had some of the lowest voting rates out of all the ethnic and racial minority groups, around 25% for midterms and 43% in presidential elections (McDonald, 2020). There was an exception for the past two election cycles. Latinos voted at higher rates for the 2018 midterm election (37%) and the 2020 presidential election (53%). Even so, these rates were still much lower than non-Hispanic White (55% and 73%, respectively) and Black (51% and 66%, respectively) eligible voters (McDonald, 2020). Thus, it is essential to investigate the political efficacy at the group level of Latinos to understand better the mechanisms that can affect voter participation among Latinos.

There are multiple reasons why this has happened in the past, with evidence that supports these reasons. One apparent reason is that Latinos have more recent immigrant backgrounds, and not all Latinos in the U.S. are citizens; about 20% of Latinos are not (Krogstad & Noe-Bustamante, 2021). Latinos are also part of marginalized groups, and these groups often suffer from systemic barriers that disproportionately affect them. For example, certain conservative states have passed stricter voting laws since the Supreme Court held part of the Voting Rights Act unconstitutional (*Shelby County v. Holder*, 570 U.S. 529, 2013). However, these actual barriers to voting do not fully explain the historic low voter turnout Latinos have. Black voters are also routinely marginalized and affected by these barriers. Still, their voter turnout is equal or sometimes higher than White voters.

Within political psychology, researchers found that Black identity became politicized, which drove the civil rights era and boosted the Black vote (Simon & Klandermans, 2001). Additionally, mixed results have linked identity to political participation (e.g., Valentino et al., 2011; Sears et al., 2004). Valdez (2011) found that Latinos who identified as American had higher odds of participating in politics than Latinos who identified with their country of origin (e.g., Mexican). On the other hand, some studies have demonstrated that devaluing discourse on ethnic identity can increase political participation among Latinos who identify highly with their ethnicity (Pérez, 2015). Researchers have also found that anti-immigrant politics can increase Latino political involvement (Merolla et al., 2013; Pantoja et al., 2001), which can explain, in part, the high turnout of Latinos during the past two elections due to the “Trump Effect.”

Previous studies have yet to fully capture why Latinos do not historically vote in the United States and, since Latinos are the largest ethnic minority group yet continue to vote in low numbers, research must understand why this lack of participation occurs. Previous studies have

yet to fully capture why Latinos do not historically vote in the United States. Thus, this dissertation focused on a new construct of Ethnic Group Political Efficacy (GPE), an individual's belief in their ethnic group's ability to participate in politics. Participation in politics can take many forms. Still, this dissertation focused on (1) the intent to vote in the midterm election and (2) voting in the midterm election in a national online representative sample. The ethnic GPE new construct is hypothesized to have several facets. First, an internal ethnic group political efficacy (internal GPE) facet was expected, which involves a minority group member's confidence in their ethnic group's ability to participate in politics and associated activities. Second, it was expected that an external GPE facet would emerge, which is the minority group member belief that political leaders will listen to their ethnic group after they receive their votes. For example, suppose a politician seeks the 'ethnic vote' of the group, and the ethnic group clearly states their drinking water is not clean and needs help. In that case, people higher in external GPE will believe the politician will listen and take actionable steps to resolve the problem that affects their ethnic group if elected. If politicians seek their "ethnic vote" at election time, but ignore their water problem once elected, the group members will develop low external GPE over time. Finally, a third dimension was anticipated, which I have labeled Power GPE, and involves the minority group member belief that if their ethnic group votes together, they can accomplish goals (Drury & Reicher, 2009; Mangum, 2003; Turner et al., 1987).

There are many ways to organize a brief review of relevant literature that led to the construct's development. I will start by discussing how group members identify with their groups and how this can lead to group consciousness and collective action in political realms. I will then discuss the literature on social capital, self-efficacy, and political self-efficacy. Finally, I will discuss the importance of the new measure, ethnic group political efficacy.

### **Self-Identification**

When an individual construes their identity, it usually stems from being a member of a group or category, or because the individual has particular traits and/or attributes (American Psychological Association, 2022). People can self-identify with ethnicity, sports teams, personality traits, nationality, or even hair color. Erikson (1968) mentions that identification starts before adolescence, during childhood, when the child begins to see themselves as unique and starts adopting characteristics from parents and significant others. Then, according to Erikson (1968), the primary process of identity formation happens during adolescence, and it is interwoven between the individual and society.

At the onset of puberty and adolescence, the individual starts questioning who they are and how they fit in the world. A solid identity can give individuals direction and a sense of meaningful existence and well-being. A solid identity is crucial for further development, even though there can be role confusion if this stage is not resolved successfully during adolescence or emerging adulthood (Erikson, 1968). Erikson's identity formation is relevant to this study because he incorporates the social part of the individual into the development and importance of identity. Identity formation is particularly crucial when considering how Latinos identify with their group membership and how that can affect their voting behavior.

Tajfel and Turner (1979) later developed social identity theory, which posits that an individual's identity is based on their group membership. While social identity theory was designed to help understand discrimination and intergroup conflict, it also helps explain how a particular group self-categorizes among other groups and how cohesive the group is (Turner et al., 1987). More recent research has revealed specific components of identity and self-identification within in-groups. Leach (2008) pointed out that some of these components include

individual self-stereotyping, in-group homogeneity, satisfaction, solidarity, and centrality (Ellemers et al., 1999; Jackson, 2005; Cameron, 2004; Luhtanen & Crocker, 1992; Sellers et al., 1998) but there is lack of consensus within the literature as to which are included explicitly in self-identification. Therefore, Leach (2008) conducted a multi-study research project combining these components into two higher-order dimensions of group-level self-definition and self-investment. These two dimensions (group-level self-definition and self-investment) have been utilized in the literature to measure group self-identification. Such research has demonstrated strong support for converging and diverging identification patterns compared to other models (Roth et al., 2019). Additionally, higher levels of self-investment in social identity with individuals predicted adopting climate-friendly behavioral in-group norms (Masson & Fritsche, 2014). In another study, Latinos with higher levels of self-definition reported more positive social media expression on immigration and Latino culture. Still, higher levels of self-investment were negatively associated with social media expression on immigration (Velasquez et al., 2019).

Since social identity and identification to a group have historically shown their significant effects on behavior, it is possible that the more a Latino self-identifies with their ethnic group and self-invests in that group, the more likely they are to exhibit group-level political efficacy. This dissertation incorporated these two more recently developed constructs of group-level self-identification and self-investment to measure the degree of self-identification of Latinos to their in-group and how these measures influence group-level political efficacy.

### **Group consciousness**

In political science, the conceptualization of group consciousness is when a person identifies with a group and has the political awareness to know the group's position relative to

society or the dominant group (Miller et al., 1981) while also maintaining a commitment to acting in the best interest of their group. Group consciousness has four components: group identification, polar affect, polar power, and individual versus system blame (Miller et al., 1981). Group identification has been explained in the previous section, so the other three components of group consciousness will be elaborated on here. Polar affect refers to group members having positive affect toward their group members (in-group) and disliking people outside of the group (out-group), much like the premise of Tajfel & Turner's (1979) social identity theory (Miller et al., 1981). Polar power is knowing the group status and expressing satisfaction or dissatisfaction with the status relative to the out-group's status. Group consciousness theory says that groups of low status will become discontent with their status when comparing the in-group to a dominant out-group, and dominant groups will feel discontent when their group is threatened by a lower-status group (Miller et al., 1981). Lastly, individual versus system blame refers to whether the low-status group blames the individual or systemic inequities for the group's low social status (Miller et al., 1981).

The group consciousness premise is that a low-status group will become aware of their low status and no longer accept it, which will elicit a collective action to fix the injustices they perceive. This effect is partially seen in older literature with Black communities and political mobilization to vote for a Black candidate (Jackson, 1986). Still, only half of the Black community voted for the Black candidate. Chong and Rogers (2004) point out that earlier literature focused exclusively on testing group consciousness with Black communities and found consensus on the effect of Black group consciousness and political participation (Shingles, 1981; Olsen, 1970; Verba & Nie, 1972). In more recent research, similar effects have not been replicated with Black Americans (Leighley & Vedlitz, 1999; Marschall, 2001; Verba et al., 1995;

Wilcox & Gomez, 1990). There have been positive and mixed results regarding group consciousness and political participation within other marginalized groups, such as Latino and Asian Americans (Junn & Masuoka, 2008). For example, a study by Stokes (2003) demonstrated that group consciousness increased political participation among Latinos and measured group consciousness with all four subcomponents established by Miller (1981).

Other studies have redefined how group consciousness is measured, creating conflicting results. For Latinos, researchers have found that measuring groups' consciousness with group identification or cultural commonality, perceived discrimination, and desire for collective action are better predictors of political participation (Garcia, 2003; Sanchez, 2006). Marsh and Ramirez (2019) used Michael Dawson's "black utility heuristic" and linked fate to African Americans' shared political involvement as a foundation to measure group consciousness. Marsh and Ramirez used *solidaridad* as a form of group consciousness for Latinos. *Solidaridad* was first introduced by Barreto and colleagues (2009) and has been measured the same as linked fate. Theoretically, authors explain it as assuming the multiple pan-ethnic identities of Latinos will be salient in different contexts (Marsh & Ramirez, 2019). Results from Marsh & Ramirez demonstrated *solidaridad* to be more dynamic than static among Latinos, given that it was more elevated during the 2008 election than the 2016 election, possibly due to legal threats rather than rhetorical threats (2019). This study is another example of how researchers use different measurement forms for group consciousness, specifically as a function of identity. Given past mixed results and lack of consistency in measuring group consciousness, I will only use self-identification in this study.

**Collective action**

Along a similar line of research is collective action, which was initially conceptualized as a response to an objective disadvantage by a group (Hovland & Sears, 1940) but more recently redefined as a subjective sense of disadvantage (Major, 1994; Postmes et al., 1999). According to Van Zomeren's (2008) meta-analysis, three subjective variables can lead to collective action: perceived injustice, perceived efficacy, and a sense of social identity. Within this meta-analysis, the theory of an integrative social identity model of collective action (SIMCA) was created. Although the research on collective action is vast, this meta-analysis did not include political efficacy or voting as part of the analysis (Van Zomeren et al., 2008).

Tausch (2011) distinguished between normative and nonnormative types of collective action. Normative collective actions are nondisruptive activities, such as signing petitions, sending letters, and making donations. Nonnormative collective actions are disruptive activities such as occupying buildings, civil disobedience, and lighting cars on fire (Tausch et al., 2011). Additionally, Tausch found the antecedents that lead to each type of collective action differed; anger and high collective efficacy predicted normative forms of protest, whereas contempt and belief that conventional actions are low efficacy predicted nonnormative forms of protest (2011). Other researchers have pointed out that collective action can take the form of brief social movements or have longer durations (Klandermans, 1997). In addition, Drury and colleagues (2012) argued that not only social change can happen through collective action but also psychological change within the individual. This led to the development of the elaborated social identity model (ESIM), which states that an individual's social identity can change through participation in collective action by how an outgroup reacts and defines the collective taking action. In other words, if individuals take part in a protest with somewhat heterogeneous



identities, these identities can become more homogenous by how the outgroup reacts and defines the individuals in the protest, which can lead to empowerment with a new sense of identity and further collective action. For example, if a group of individuals takes part in a peaceful protest (according to the ingroup) but police react to the individuals in the protest as threatening and radical, the individuals can shift to a new sense of identity and new forms of action (nonnormative or police opposition; Drury et al., 2012).

Thus, much of the research on collective action looks at political participation that does not include voting behavior. Otjes (2019) did conduct a study to test if a collective disadvantage (experiencing an earthquake) led to protest voting, which is voting for a third-party/ non-establishment candidate not likely to win. Results from this study found that experiencing an earthquake did predict protest voting via regional identification and feelings of efficacy (Otjes et al., 2019). Still, protest voting is not regular voting behavior and is usually because of a perceived disadvantage or injustice. This dissertation focused on midterm voting and self-reported political participation (scale for political participation developed by Gopal & Verma, 2017).

### **Social Capital**

Social capital is generally defined as the degree to which people belong in their social networks and the intangible resources available through those networks (Putnam, 2000). This concept was first introduced by Coleman (1988), who postulated three components of social capital: “obligations and expectations, information-flow capability of the social structure, and norms accompanied by sanctions” (Coleman, 1988, p. S119). Later, other authors highlighted two main factors in social capital: trust and social networks (Jackman & Miller, 1998). Thus, demonstrating how the conceptualization of social capital has evolved through the years.

Research on social capital has shown it is related to better overall health and mental health (Kawachi & Berkman, 2001, Valencia-Garcia et al., 2012), higher education attainment and more social mobility (Ream, 2005), and a person's perceived trust in their community (Bullen & Onyx, 2005). Research has also been conducted on social capital and political participation. A study by La Due Lake and Huckfeldt (1998) found that social capital could increase political engagement and participation through an individual's social network expertise in politics, the frequency of political interaction within the social network, and the size of the social network.

More recent research has divided social capital into three measurable factors: bridging social capital, bonding social capital, and linking social capital (Archuleta & Miller, 2011). Bridging social capital refers to connections established with diverse groups with different social identities but can maintain weak ties that could have the potential for more opportunities (Poortinga, 2006). Bonding social capital refers to the internal part of the social network with similarities, strong norms, and social ties based on loyalty, social separation, exclusivity, and interconnectedness (Whitley & McKenzie, 2005). Linking social capital is a subset of bridging social capital in that it refers to vertical ties with different power statuses (Poortinga, 2006). Study 2 measured bridging and bonding social capital and a measure of trust within social networks to identify social capital among voting Latinos. I did not include linking social capital in Study 2 because it is a subset of bridging social capital. In other words, this study included classic (trust) and more recent (bridging and bonding) forms of measuring social capital. It is expected that social capital will influence ethnic group political efficacy. In an exploratory nature, I expected more trust, bridging, and bonding to be related to more internal and power GPE but less external GPE.

**Self-efficacy**

Albert Bandura was the first one to introduce the concept of self-efficacy. He posits that self-efficacy is individuals' belief in their capabilities to influence change through actions and behaviors (Bandura, 1977). Bandura (1994) postulates four ways people can build up their self-efficacy. The first way is by going through "mastery experiences." In other words, when people feel they have succeeded in their effort, they will have self-efficacy. On the other hand, if an individual is accustomed to having success easily or has experienced failure before a strong sense of self-efficacy is established, the individual will have lower levels of self-efficacy. The second way of creating higher self-efficacy is learning from social models like the individual. For example, if a particular individual sees someone, a similar other, experiencing success, they will believe they also possess the required capabilities. Conversely, if an individual sees a similar another put in high effort and fail, this will lower the individual's sense of self-efficacy.

According to Bandura (1994), social persuasion is the third way to strengthen self-efficacy. For example, when individuals receive positive verbal reinforcement about their capabilities, they will be more likely to put more effort into mastering those capabilities and succeeding. In contrast, when individuals are persuaded that their abilities are not strong enough, they will avoid challenging themselves and give up easily when a difficulty arises.

Another way to increase self-efficacy levels is to decrease negative mood and stressors. Bandura states that when individuals are in a positive mood or have few stressors, their sense of self-efficacy increases because they interpret this affective state as helping with their performance or capabilities.

In addition to general self-efficacy, researchers have identified a myriad of other self-efficacies over the years. For example, high academic self-efficacy has been empirically positively associated with academic performance (Honicke & Broadbent, 2016). Social self-efficacy was also positively associated with communication and problem-solving skills (Erozkan, 2013).

Two types of efficacies that are not internal human processes are collective and means efficacy (Yaakobi, 2018). Means efficacy is an individual's belief in the tools used to perform a task. For example, having confidence that the internet will keep functioning will give the individual a higher sense of efficacy to complete a task successfully (Eden, 2001). Collective efficacy is a group's belief that the team they belong to can succeed in their group performance of a given task (Bandura, 1997). Although Bandura was the first to theorize on the efficacy of the self in the 70s, other types of efficacies were measured and studied before his seminal theory of self-efficacy. One such efficacy is a "sense of political efficacy" (Campbell et al., 1954).

### **Political Efficacy**

Political efficacy is individuals' belief in themselves and the government to participate in politics. This participation in politics can take many forms. Examples include voting, calling congress members, attending rallies, civil disobedience, and registering voters. Initially, researchers measured political efficacy as one construct starting in the 1950s. Then, Balch (1974) and later other researchers found evidence that political efficacy could be divided into internal and external forms. Researchers have recently conceptualized a third type: group political efficacy (Mangum, 2003).

Internal political efficacy is individuals' confidence in politics and their participation in associated activities. This type of efficacy can manifest if individuals believe they know enough

about the politicians running for office to go and vote. Conversely, if an individual does not feel confident in their knowledge about the politicians, it can keep them from voting in that election (Niemi et al., 1991).

External political efficacy is an individual's belief that political leaders will listen to the voters and accomplish what they said they would. For example, suppose an individual believes that voting does not change anything or that government leaders do not have the voters' best interest in mind. In that case, they will probably not vote during elections. However, conversely, if an individual has strong confidence in our government and its leaders, they will be more likely to vote (Craig & Maggiotto, 1982).

### **Current Study**

This dissertation sought to fill a gap in the literature examining Latino political participation by examining the influence of *ethnic* GPE. As stated previously, *individual-level* internal and external political efficacy often do not affect voter participation in ethnic and racial minority samples in the United States. For example, external political efficacy was not associated with voting in a sample of Chicago Latinos (Michelson, 2000). In another study, individual political efficacy did not affect voting for Black Americans. Instead, group political efficacy was related to voting for Black Americans (Mangum, 2003). These findings by Mangum (2003) suggest that more research should be conducted on how group political efficacy influences political participation in other ethnic and racial minority groups, namely Latinos.

Latino individuals' political participation is expected to be influenced not only by their individual political efficacy but also by their group political efficacy. If Latinos believe their ethnic minority group has low political efficacy within the system, they will be less likely to vote.

This dissertation began by developing a scale that examined GPE. Additionally, Study 1 examined differences in GPE among four ethnic and racial groups (i.e., non-Latino White, non-Latino Black, non-Latino Asians, and Latinos) and if differences in GPE predict an intent to vote in a college sample from Texas. Study 2 involved a short-term longitudinal study that examined the influence of GPE on the intent to vote, voting behavior, and self-reported political participation. Study 2 also manipulated GPE to examine possible differences in voting behavior further.

It is essential to add to the literature on Latino political participation since it is the biggest ethnic minority group in the U.S., and Latinos are projected to gain more political power in the coming years. While it is important for politicians to acknowledge and act on concerns from the Latino community, it is equally important for them to engage in their constitutional right to vote and participate actively in politics. This is a reciprocal relationship where both ends must try to have some harmony and balance.

**Study 1 (Scale Development).** Drawing from the literature, the first aim of this dissertation was to develop a scale that measures political efficacy at the group level. To date, a validated and peer-reviewed scale has not been developed for ethnic group political efficacy. A master's thesis by Edwards (2018, not published) attempted to create such a scale, but it was based on items from the German Longitudinal Election Study (GLES). The GLES uses four items to measure internal political efficacy and three to measure external political efficacy. Even though the GLES has been demonstrated to be valid and reliable in other contexts (Vetter, 1997), very little is known about this unpublished scale's psychometric properties. As such, I will begin by developing items for an ethnic GPE scale based on scales commonly used in the U.S., the country of interest for this study. More specifically, group political efficacy items were

developed based on items from the individual external and internal political efficacy scales by Craig (1990) and the three-item power efficacy scale by Mangum (2003). Based on this scale development study, I have the following hypotheses:

*Hypothesis 1(H1).* Exploratory and Confirmatory Factor Analyses will reveal three GPE facets: internal, external, and power that are similar among all four groups.

*Hypothesis 2(H2).* Polytomous Item Response Theory (IRT) analyses will further reveal that the items discriminate well between individuals, and participants use the Likert-type ordering of the scale appropriately for each item.

*Hypothesis 3(H3).* The differential analysis will show that ethnic and racial minority groups do not use the scale differently (i.e., the slopes representing how well each item discriminates will be the same for all ethnic groups).

*Hypothesis 4(H4).* Ethnic and racial minority participants will report lower internal, external, and higher power GPE than Non-Latino White participants. There will be no expected differences in individual political efficacy.

*Hypothesis 5(H5).* Ethnic GPE will uniquely predict self-definition, self-investment, and persuasion after controlling for individual political self-efficacy, ethnicity and race, and gender.

*Hypothesis 6 (H6).* Ethnic GPE will uniquely predict voting intent after controlling for individual political self-efficacy.

*Hypothesis 7(H7).* Ethnic GPE will mediate the link between ethnic group membership and outcome measures (H5-H6).

**Study 2 (Longitudinal National Sample).** Study 2 first examined the factor structure of the newly developed scale using confirmatory factor and item response theory analyses. Study 2

examined whether ethnic GPE uniquely predicted higher voting participation among Latinos using an online national sample in the United States. This study was a short-term longitudinal study that assessed the intent to vote and voting behavior during the 2022 midterm election. Additionally, the study included a manipulation meant to tap into group GPE. Participants were randomly assigned to one of four groups: (1) make a plan to vote that includes their friends and family, and highlights the importance of voting for their group (group GPE with a plan), (2) only highlights the importance of voting for their group (group GPE), (3) make a plan to vote for themselves and highlights the importance of voting in general (individual political efficacy), or (4) only highlights the importance of voting (individual political efficacy). Based on previous theory and research, I have made the following predictions:

*Hypothesis 8a(H8a).* Study 2 will confirm three factors of ethnic GPE in the national sample using CFA.

*Hypothesis (H8b).* Exploratory multivariate regression examined how self-investment, self-definition, social persuasion, political knowledge, internal and external political efficacy, and social capital subscales (bridge, bond, and trust) are uniquely related to each of the ethnic GPE dimensions. Specifically, self-definition, self-investment, individual political efficacy, and political knowledge will predict power GPE. Individual political efficacy, social capital bridge and trust, and political knowledge will predict external GPE. Self-definition, self-investment, social persuasion, political knowledge, and social capital bonding will predict internal GPE.

*Hypothesis 9(H9).* Latinos with higher levels of group political efficacy will be more likely to vote in the 2022 midterm election after controlling for income, age, gender, education, and individual political efficacy.



*Hypothesis 10(H10)*. Latinos with higher levels of group political efficacy will be more engaged in other types of political participation, aside from voting and after controlling for income, age, gender, education, and individual political efficacy.

*Hypothesis 11(H11)*. Latinos in the treatment conditions (which taps into group GPE) will be more likely to have voted in the 2022 midterm election, more likely to have voted with others, and more likely to report planning to vote with others in the future compared to the control conditions. *Tapping* into group political efficacy is expected to increase the salience of voting for Latinos. Based on previous research, making a plan to vote was also expected to increase voting behavior (Nickerson & Rogers, 2010).

## **Study 1**

### **Method**

#### **Participants**

The *sample consisted* of 493 participants collected in the Summer of 2022 and Fall of 2022. Participants were recruited through the University of Texas at Arlington psychology department's subject pool using Sona. Participants identified as Latino (n = 212), non-Latino Asian (n = 108), non-Latino White (n = 92), and non-Latino Black (n = 81). The sample consisted primarily of women (Male = 96, Female = 376, Transgender/Nonbinary = 8). Over half of the sample (56.6%) identified as either a first-generation (n = 45) or second-generation immigrant (n = 224). Participants had to be older than 18 years of age and U.S. citizens to be eligible to participate.

#### **Measures**

**Ethnic Group Political Efficacy.** Group political efficacy items were developed based on items from the individual external and internal political efficacy scales by Craig (1990) and

the three-item Black power efficacy scale by Mangum (2003). The external and internal political efficacy items by Craig (1990) were modified to reference the group instead of the individual. The three items by Mangum (2003) already referenced the group but talked about Black power; these were changed to reference Latinos (or other ethnic groups) as a group (See Appendix 1 and Table 1 for items). Similar to the individual political efficacy scales, the ethnic GPE is also a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

**Self-Investment and Self-Definition.** A scale by Leach et al. (2008) was included to measure group self-investment and self-definition. *Group self-investment* measures the extent of the individual's investment to the in-group (which in this case was their ethnic group;  $\omega = .95$ ). This Likert-type scale ranged from 1 (strongly disagree) to 7 (strongly agree). This measure consists of 10 items, such as "I am glad to be Latino/a/x" and "Being Latino/a/x is an important part of how I see myself."

*Group self-definition* measures the extent of the individual's definition of the in-group (which in this case was their ethnic group;  $\omega = .86$ ). This Likert-type scale ranged from 1 (strongly disagree) to 7 (strongly agree). This measure consists of four items, such as "I am similar to the average Latino/a/x person."

**Political Efficacy.** To measure *individual political efficacy*, I included the internal and external political efficacy scale (Craig et al., 1990). The total items for both scales were 12 and measured on a Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). Internal political efficacy consists of seven items, such as "I consider myself well-qualified to participate in politics" ( $\omega = .78$ ). External political efficacy consists of five items, such as "Candidates for office are only interested in people's votes, not in their opinions" ( $\omega = .79$ ).

**Persuasion.** Social persuasion involves how much the people around the individual believe they should vote, self-reported from the individual/participant. A modified three-item scale from Glassford (2008) was used to measure social persuasion. The items were rated on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). An example item is, “My friends and family think I should vote in the 2022 midterm election” ( $\omega = .96$ ).

**Intent to Vote.** Intention to vote in the 2022 midterm election was measured by the question: “Do you plan on voting on the 2022 midterm election later this year?” The answer options were “yes,” “no,” or “rather not say.” “Rather not say” was coded as missing data for analyses. “Yes” was coded as one and “No” was coded as 0.

More measures were included in the survey but were not relevant to the scale development portion of this study. Scales included but not used for the scale development portion of this study were: political knowledge, news consumption, right-wing authoritarianism, left-wing authoritarianism, anxiety, depression, Big Five personality, acculturative stress, political orientation, and short-term history of voting behavior.

## Results

### H1: Exploratory and d Factor Analysis

An exploratory factor analysis was conducted with the entire sample ( $n = 493$ ) using parallel analysis, minimal estimation method, and ProMax rotation was conducted on the original 16 items (See Table 1). The logic of using parallel analysis, considered a gold standard, is that the magnitude of the eigenvalue for the last retained factor should exceed an eigenvalue obtained from random data under otherwise similar conditions (DeVellis, 2017).

First, I examined whether my sample was sufficient for the factor analysis. The Kaiser–Meyer–Olkin measure is one measure for testing sampling adequacy (KMO; Kaiser, 1970). The

average MSA was acceptable at .76 (Hutcheson & Sofroniou, 1999). Three items were dropped from the initial analysis due to unacceptable factor loadings ( $< .35$ )<sup>1</sup>. Based on the parallel analysis and factors loadings, the final solution suggested there were three factors: group internal political efficacy, group external efficacy, and group power efficacy. Additionally, the overall fit of my model was satisfactory, RMSEA = .059, 90% CI [.046, .072], TFI = .92, CFI = .96, SRMR = 0.03. The final model accounted for 43.2% of the variance. The factor loadings are in Table 1.

I then assessed measurement invariance using CFA to ensure that the three dimensions had configural invariance across the four ethnic/racial groups. Configural invariance tests to see if (1) the number of factors and (2) factor loading patterns are invariant across my ethnic and racial groups. The fit for the configural invariance model was acceptable, CFI = .90, RMSEA = .067, SRMR = .07.

When examining the individual factor loadings for each group separately, non-Latino White participants did not use GPE6 and GPE10 the same as the other ethnic/racial groups. When removing those two items, the fit improved, CFI = .92, RMSEA = .067, SRMR = .067. Next, I compared the configural fit model with a metric invariance model. A metric fit model examines the same two invariances as the configural model with the addition of testing the invariance that the exact factor loadings are the same. The metric invariance model still had an acceptable fit, CFI = .912, RMSEA = .066, and SRMR = .076. The more robust metric invariance model was not significantly worse than the less robust configural model,  $\chi^2(24) = 33.67$ ,  $p = .09$ . I kept the original scales when comparing groups since the configural fit was acceptable in both models, and GPE6 and GPE10 loaded on their expected factors. However, future research should further examine the group invariance with other samples.

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<sup>1</sup> When conducting the exploratory factor analysis with only racial and ethnic minorities, all items loaded above 0.40 and GPE6 only loaded on Internal GPE as expected.

**H2: Item Response Theory (IRT)**

Next, I used polytomous IRT to examine the characteristics of the individual items. IRT is a probabilistic, model-based test theory that originates from the pattern of participants' responses to a set of items (Cole, Turner, and Gitchel, 2019). IRT models, such as the generalized partial credit model (GPCM), have been used for decades to examine items within scales for validity issues (e.g., the proper use of nominal scales). Items were rated along difficulty and discrimination dimensions. The term "difficulty" comes from the educational testing tradition and refers to how "easy" a Likert-type nominal choice is to be affirmed. In other words, what "ability" or level of a trait or attitude must the person possess before they answer at a high-level (e.g., five on a 5-point scale)? Using **MIRT** in R, I conducted three univariate polytomous IRTs for each facet of ethnic GPE that included all four racial and ethnic groups.

**Group Internal Efficacy.** The overall fit of this unidimensional IRT was acceptable, RMSEA = .031, 90% Cis [0.00, 0.81], SRMSR = .025.<sup>2</sup> Next, I examined the slopes of each probability curve; steeper slopes were associated with better discrimination in the equivalent region. Researchers typically want to see item discrimination ( $\alpha_i$ ) values over 1. Although my internal group efficacy scale had acceptable overall reliability, McDonald's  $\omega = .68$ , the individual item discrimination was lower than anticipated. In other words, even though these items were indicators of the same latent construct, they did not discriminate well between individuals of different "ability" levels. The items' difficulties ( $\beta_i$ ) were ordered correctly (i.e., from lowest to highest; see Table 3 and Figure 2).

**Group External Efficacy.** The overall fit for the external GPE unidimensional IRT was acceptable, RMSEA = .094, 90% CI [0.57, 0.142], SRMSR = .041. Item discrimination ( $\alpha_i$ )

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<sup>2</sup> The multidimensional polytomous IRT produced a similar fit, RMSEA = .0579, 90% CI [.03, .08], SRMSR = .04. Due to the complexity of this model, I chose to go with the simpler polytomous IRT models.

values were  $> 1$  for three items. The other three items  $\alpha_i$ s were between .47 to .72; it would have been preferable if they had higher discrimination scores. The external GPE had acceptable overall reliability, McDonald's  $\omega = .75$ . The items' difficulties ( $\beta_i$ ) were ordered correctly (i.e., from lowest to highest; see Table 4 and Figure 3).

**Group Power Efficacy.** The overall fit could not be calculated with a three-item scale. However, the scale did account for 68.2 % of the variance. Item discrimination ( $\alpha_i$ ) values were all  $> 1$ . The power GPE also had acceptable overall reliability, McDonald's  $\omega = .802$ . The items' difficulties ( $\beta_i$ ) were ordered correctly. For “If [ethnicity/race] people, other minorities, the poor, and women pulled together, they could decide how this country is run,” participants did not use the response “disagree” uniquely in this sample. Given that this ordering could be an anomaly unique to this current sample and the other items clearly show that the participants were using the full 1 to 5 Likert scale, no changes will be made to the Likert scale (see Table 5 and Figure 4).

### **H3: Differential Analysis**

Using an iterative hybrid model that combines ordinal logistic regression and IRT, I tested group-specific item parameters that might be responsible for differences among marginalized ethnic and racial groups (Choi, Gibbons, & Crane, 2011). Ensuring that groups use scale items the same way allows researchers to confidently say that differences are due to actual differences in the trait or attitude in the question.

Using **lordif** in R, results were analyzed with the likelihood ratio (LR)  $\chi^2$  as the detection criterion with an  $\alpha = .01$  using three nested models and fitting the IRT response model using the Generalized Partial Credit Model (GPCM). The three models include:

$$\text{Model 1: } \text{logit } P(u_i > k) = \alpha_k + \beta_1 * \text{ability}$$

$$\text{Model 2: Model 1: } \text{logit } P(u_i > k) = \alpha_k + \beta_1 * \text{ability} + \beta_2 * \text{group}$$

$$\text{Model 3: Model 1: } \text{logit } P(u_i > k) = \alpha_k + \beta_1 * \text{ability} + \beta_2 * \text{group} + \beta_3 * \text{ability} * \text{group}$$

$P(u_i > k)$  represents the cumulative probabilities that the actual item response,  $u_i$ , falls in category  $k$  or higher (Choi et al., 2011). As a reminder, ability is a generic term left over from educational research and refers to the construct or latent variable measured by the scale. Only minority racial/ethnic groups were included in this analysis, given that the scale was designed to assess minority ethnic/race GPE.

**Internal GPE.** Two items (GPE 5 and 6), “*I often don’t feel sure of the [ethnic/race] community when talking with other people about politics and government*” and “*People in the [ethnic/race] community often don’t feel confident when talking about politics and government with other people,*” were flagged as displaying ethnic and race-related differences (See Table 6). Figure 5 shows the theta,  $\Theta$ , distribution for the three ethnic and racial minority groups. Latino participants, on average, had higher mean scores than the other non-Latino racial groups. All three  $\chi^2$  models were significant, suggesting that the DIF effect varies for means and how the participants answer (i.e., non-uniform DIF, see Table 6 and Figures 5 - 7). In other words, the item discriminates differently within three groups (See Figure 6). However, the test characteristic curves suggest that at the overall “test” level, there are minimal differences between the total expected scores at any level of internal GPE for the three groups (see Figure 7).

**External GPE.** No items were flagged as displaying ethnic and racial-related differences (See Table 6).

**Power GPE.** No items were flagged as displaying ethnic and racial-related differences (see Table 6).

**H4: Are there ethnic and racial differences in GPE?**

After the facets were confirmed with EFA and IRT, I recoded external and internal GPE so that *higher values represented higher levels of efficacy* for the analyses. Three ANOVAs were conducted to test differences between ethnic and racial groups on GPE.

**Power GPE.** As expected, some minorities had higher levels of power GPE, specifically Latino and non-Latino Black participants. Results showed a significant main effect of ethnic and racial groups on power GPE,  $F(3, 489) = 10.05, p < .001, \text{partial } \eta^2 = .058$ . Non-Latino Asian ( $M = 3.89, SE = 0.07$ ) and non-Latino White ( $M = 3.95, SE = 0.76$ ) participants had significantly lower levels of power GPE compared to Latino ( $M = 4.30, SE = 0.50$ ) participants,  $p = .001$ . Black participants had significantly higher power GPE than Non-Latino Asian participants,  $p = .008$ . There were no significant differences between Non-Latino Black ( $M = 4.23, SE = 0.81$ ) and Latino participants. (See Figure 8).

**Internal GPE.** Results also showed a significant main effect of ethnic and racial groups on internal GPE,  $F(3, 489) = 6.85, p < .001, \text{partial } \eta^2 = .040$ . Latino ( $M = 3.10, SE = 0.05$ ), Non-Latino White ( $M = 3.20, SE = 0.07$ ), and Non-Latino Asian ( $M = 3.21, SE = 0.07$ ) participants had significantly lower levels of internal GPE compared to Non-Latino Black participants ( $M = 3.51, SE = 0.08$ ),  $p < .001, p = .019$ , and  $p = .017$  respectively. There were no significant differences between non-Latino White, non-Latino Asian, and Latino participants.

**External GPE.** As expected, minorities had lower external GPE levels but higher power GPE levels. Results showed a significant main effect of ethnic and racial groups on external GPE,  $F(3, 489) = 52.73, p < .001, \text{partial } \eta^2 = .244$ . Such that, non-Latino White ( $M = 3.46, SE = 0.08$ ) participants had significantly higher levels of external GPE compared to Latino ( $M = 2.37, SE = 0.05$ ),  $p < .001$ , Non-Latino Black ( $M = 2.31, SE = 0.08$ ),  $p < .001$ , and Asian ( $M = 2.61, SE$



= 0.07) participants,  $p < .001$ . Additionally, Non-Latino Asian participants had significantly higher external GPE levels than Latino participants,  $p = .037$ , and Non-Latino Black participants,  $p = .036$ . These results reveal ethnic differences in the different factors of group political efficacy.

**Individual Political Efficacy.** Two more ANOVAs were conducted to test ethnic and racial differences on individual internal and external political efficacy. Results showed a significant main effect of ethnic and racial groups on internal GPE,  $F(3, 489) = 4.29, p = .005$ , partial  $\eta^2 = .026$ . Non-Latino Asian ( $M = 2.30, SE = 0.07$ ) participants had significantly lower individual internal political efficacy compared to Non-Latino White ( $M = 3.27, SE = 0.07$ ),  $p = .009$ , Latino ( $M = 3.21, SE = 0.05$ ) participants,  $p = .082$ , and Non-Latino Black ( $M = 3.21, SE = 0.08$ ) participants,  $p = .077$ . Results revealed no ethnic differences in external political efficacy,  $p = .105$ . (See Figure 8).

#### **H5: Does GPE uniquely predict self-definition, self-investment, and persuasion?**

A series of hierarchical multiple regressions were conducted to test if ethnic GPE would predict self-definition, self-investment, and social persuasion, after controlling for ethnicity, gender, individual political efficacy, and political knowledge. Ethnicity was coded with Latinos as the comparison group. Gender was coded with men as the comparison group. Five predictors were entered in the first step of all regressions: ethnicity, gender, internal and external political efficacy, and political knowledge. In the second step, power, internal, and external GPE were entered for all regressions. Intercorrelations between Ethnic GPE and focal variables can be found in Table 7.

**Self-investment.** With self-investment as an outcome, the overall model was significant,  $F(10, 461) = 66.45, p < .001$ , and explained 59% of the variance in self-investment. The

introduction of GPE in the second step explained an additional 2.6% of the variance in self-investment after controlling for individual political efficacy, ethnicity, gender, and political knowledge,  $\Delta R^2 = .026$ ;  $\Delta F(3, 461) = 9.818$ ;  $p < .001$ . Power and internal GPE were positively related to self-investment while external GPE was negatively associated with ethnic and racial group self-investment (See Table 8). Ethnicity and race of the participant were also related to group self-investment with Latino participants reporting greater group self-investment than non-Latino White and Asian participants,  $F(3, 461) = 109.54$ ,  $p < .001$  (See Table 8).

**Self-definition.** With self-definition as an outcome, the overall model was significant,  $F(10, 461) = 10.54$ ,  $p < .001$ , and explained 16.8% of the variance in self-definition. The introduction of GPE in the second step explained an additional 1.8% of the variance in self-definition,  $\Delta R^2 = .018$ ;  $F(3, 461) = 3.48$ ,  $p = .016$ . Power GPE was positively related while political knowledge was negatively associated with self-investment. Additionally, Latino participants reported more group self-definition than non-Latino White and Black participants (See Table 9).

**Social persuasion.** With social persuasion as an outcome, the overall model was significant,  $F(10, 461) = 12.18$ ,  $p < .001$ , and explained 10.9% of the variance in social persuasion. The introduction of GPE in the second step was not significant,  $F(3, 461) = 1.93$ ,  $p = .124$ . Women reported being more influenced by group persuasion than men. Those with higher internal political efficacy and higher power GPE also reported greater levels of group persuasion (See Table 10).

Overall, these results show that ethnic GPE predicts self-definition and self-investment at the group level, over and above individual political efficacy, gender, and ethnicity, meaning that

the ethnic GPE scale is tapping into group-level self-identification. These findings also show evidence for convergent validity.

#### **H6: Does GPE uniquely predict mid-term voting intent?**

Logistic regression was conducted to test if ethnic GPE would predict intent to vote in the 2022 midterm election. Individual political efficacy was entered in the first step, with the three facets of GPE in the next step. Results showed that internal political efficacy significantly predicted intention to vote in the midterm election,  $B = 0.89$ ,  $SE = 0.16$ ,  $Wald = 28.69$ ,  $p < .001$ . The estimated odds ratio favored an increase of nearly 43%,  $Exp(B) = 2.428$ , 95% CI [1.76, 3.36], of intention to vote for every one unit increase of internal GPE (Figure 9). Similarly, group power political efficacy predicted intention to vote in the midterm election,  $B = 0.44$ ,  $SE = 0.15$ ,  $Wald = 8.92$ ,  $p = .003$ . The estimated odds ratio favored an increase of nearly 55%,  $Exp(B) = 1.55$ , 95% CI [1.16, 2.08], of intention to vote for every one unit increase of power GPE (Figure 9). Finally, political knowledge predicted midterm intentions,  $B = 0.18$ ,  $SE = 0.09$ ,  $Wald = 4.17$ ,  $p = .04$ . The estimated odds ratio favored an increase of nearly 19%,  $Exp(B) = 1.193$ , 95% CI [1.01, 1.41], of intention to vote for every one unit increase of political knowledge (See Table 11).

#### **H7. Does GPE mediate the link between ethnic group membership and outcome measures?**

Mediation analysis was conducted using PROCESS 4.1, Model 4. Ethnicity was coded as a categorical variable with four ethnic and racial categories and White as the reference group. For the model, I examined whether ethnicity predicted individual and group political efficacy, which in turn predicted the outcome measures from H5-H6.

**Intent to Vote.** There was no relative direct effect of ethnicity and race on intent to vote,  $\chi^2(3) = 1.56$ ,  $p = .67$ . However, there was a relative indirect effect of ethnicity and race on intent

to vote via power GPE (See Table 12). Latino participants had higher levels of power GPE than non-Latino White and Asian participants; higher levels of power GPE led to higher levels of intent to vote in the midterm.

**Self-Investment and Self-Definition.** There was an overall direct effect of ethnicity and race on group self-investment in their ethnic and racial in-group,  $F(3, 489) = 209.77, p < .001, \Delta R^2 = .56$ . Latino participants reported higher self-investment compared to non-Latino White and Asian participants. There was an indirect effect of being Latino versus non-Latino White or Asian on group self-investment via power GPE. Latino participants had higher power GPE, which led to more increased group investment. Being Latino (versus non-Latino Black) was also associated with lower levels of internal GPE and less self-investment. Finally, being Latino (versus Non-Latino White or Asian) predicted self-investment via external GPE (See Table 13 for more detailed results). Latino participants had higher external GPE, which was associated with higher self-investment.

There was an overall direct effect of ethnicity and race on group self-definition,  $F(3, 484) = 18.87, p < .001, \Delta R^2 = .10$ . Latino participants were more likely to define themselves by their ethnic group than non-Latino White and Black participants. There was again an indirect effect of ethnicity/race on group self-definition via power GPE. More importantly, I found this effect for Latino versus non-Latino White participants,  $b = -.07, \text{boot } SE = .04, 95\% \text{ CI } [-.01, -.16]$  and Latino versus non-Latino Asian participants,  $b = -.09, \text{boot } SE = .04, 95\% \text{ CI } [-.02, -.19]$  (See Table 14 for more detailed results).

**Persuasion.** There was no evidence of a direct ethnicity and race effect on voting persuasion,  $F(3, 483) = 0.60, p = .61, \Delta R^2 = .003$ . However, there was an indirect effect of being Latino on voting persuasion via power GPE versus being White  $b = -.09, \text{boot } SE = .04, 95\% \text{ CI}$

[-.03, -.18] or versus being Asian,  $b = -.11$ , boot  $SE = .04$  95% CI [-0.03, -0.20] (See Table 15 for more detailed results).

**Political knowledge.** There was an overall direct effect of ethnicity and race on political knowledge,  $F(3, 484) = 4.44$ ,  $p = .004$ ,  $\Delta R^2 = .003$ . Non-Latino White and Asian participants reported higher political knowledge than Latino participants,  $b = .51$ , boot  $SE = .18$ ,  $t = 2.92$ ,  $p < .01$ . There was an indirect effect of ethnicity and race on political knowledge via power GPE for Latino participants (vs. White)  $b = -.10$ , boot  $SE = .04$ , 95% CI [-.03, -.18] and for Latino participants (vs. Asian),  $b = -.11$ , boot  $SE = .04$ , 95% CI [-.05, -.21]. There was also an indirect effect of ethnicity and race on political knowledge via internal GPE for Latino versus non-Latino Black participants. Black participants reported higher internal GPE than Latino participants, which then led to greater political knowledge,  $b = .08$ , boot  $SE = .04$ , 95% CI [.01, .16] (See Table 16 for more detailed results).

## Discussion

Study one aimed to develop a group political efficacy scale based on previously used scales of individual political efficacy created by Craig (1990) and Mangum (2003). The items from Craig (1990) were modified to refer to the group rather than the individual. The items from Mangum (2003) already referred to the group but only applied to the Black community; therefore, they were modified to each ethnicity targeted in the college sample. In addition, we collected a diverse sample consisting of Latinos, Black, Asian, and White participants to see if there were differences in GPE among ethnic and racial groups. I also explored other political participation attitudes and behaviors.

Results from exploratory factor analysis and item response theory (IRT) demonstrated that the subscales of GPE had good overall initial psychometric properties after dropping three

items. The subscales for GPE were similar to the original scales of individual political efficacy, consisting of internal, external, and power group political efficacy. Differential analysis, for the most part, did not flag ethnic-related differences for individual items, except for GPE 5 and 6, but these were minimal.

When exploring ethnic and racial differences on the different facets of group political efficacy, results showed that in some instances, Latino and Black participants had higher levels of power GPE compared to White and Asian participants. White participants had higher levels of internal and external GPE. Even though ethnic and racial differences in individual political efficacy have not been studied in detail, some of these findings align with previous literature on ethnic and racial minority samples. For example, Mangum (2003) found that Black voters had high levels of power group political efficacy but not individual political efficacy. In another study with a Latino sample, external political efficacy was predictive of voter participation, but not internal political efficacy (Popan & Hinojosa, 2017).

Additionally, results from study one demonstrated initial findings for convergent validity. As expected, power and internal GPE predicted voting intention in the midterm election. Power GPE also mediated more relationships with other outcome variables for Latino and Black participants. For example, power GPE had significant indirect effects on self-definition, self-investment, social persuasion, and political knowledge for Latino and Black participants compared to White participants.

One of the limitations of Study 1 was that it involved only a college sample that was highly skewed toward women participants, which could have affected results of scale development. Additionally, Study 1 did not control for gender, age, or SES, which is related to voter participation. Women are more likely to vote than men. Older Americans are more likely

to vote than younger participants. Americans who have higher SES are more likely to vote. Finally, the study did not examine other possible important predictors of GPE. To expand Study 1 findings, additional predictors were added. One of these was social capital, composed of three subscales of trust, bridge, and bonding. Study 2 examined whether sub-types of social capital were related differently to GPE. Other important predictors included acculturative stress and political knowledge.

Thus, Study 2 involved a national online sample of voting-aged Latino adults. The reason to focus on an only Latino sample was that this subgroup votes at lower levels than White and Black voters but is the largest ethnic minority group in the USA. Study 2 was unique in that it was also a short longitudinal study that examined pre-election and post-election voting behavior within Latinos. Few studies examine intent and behavior in elections; no study has done this with a national sample of Latinos. Finally, Study 2 included an experimental manipulation of GPE by making voting for the ethnic group salient to the participant.

## **Study 2**

### **Method**

#### **Participants**

Study 2 targeted 600 Latino participants in Prolific. For example, many of Prolific's participants were within my target sample of Hispanics/Latinos. At the time of recruitment, there were 3,258 who met the criteria for Study 2 within the last 90 days of when it started. Prolific also allowed for an online nationally representative sample during the mid-term elections as well as a gender-balanced study.

Data was collected on QuestionPro. Latino individuals who were US citizens and eligible to vote could participate. Eligible participants viewed a brief study description and were directed to an online survey hosted through QuestionPro to respond to the focal questions for this project. The same participants were contacted after the midterm election (the day after) to respond to the study's second phase. In addition, I recruited students from the psychology pool (Sona) to complement the Prolific sample. The beginning of October was chosen for phase I of the study because some states had early voter registration deadlines of October 11, 2022 (e.g., postmarked 30 days before election day).

I conducted a power analysis on G\*Power version 3.1 to determine sample size. Based on preliminary logistic regression results from Study 1, I set the odds ratio to 1.60, and it yielded a required sample size of at least 402 to reach a power of .80, with an alpha of .001. I decided to set alpha to .001 due to the family-wise error rate. In addition, I conducted another power analysis for a multiple linear regression with ten predictors. To yield an effect size of .10 and power of .80, a required sample of at least 312, with an alpha of .001. A total of 600 participants were targeted because some degree of attrition over the pre/post-election period was anticipated.



The day after the election, I messaged participants who completed the submission in my study through Prolific's internal messaging system and invited them to complete the follow-up portion of the study.

For the first part of the study, 557 participants in Prolific, and 19 participants in Sona completed Phase 1. For the second part of the study, 502 participants in Prolific and 13 in Sona completed the follow-up. After data cleaning and eliminating missing data, the total number of participants that completed both phases of the study in Prolific and Sona was 498, or 84.8% of the original sample. The number of participants who completed either Phase I or Phase II were 587, with 15 participants that completed Phase II but not Phase I but were not used in the analyses. All participants' ages ranged from 18 to 73 with a mean age of 30.73. All participants self-identified as Hispanic/Latino/a, with 56.6% self-reported as being of white race and 35.9% as multiracial/mestizo/other. Gender was balanced in Study 2, with 47.4% women and 47.4% men. Most of the participants were from Texas (25.7%), California (24.7%), Florida (10.1%), and New York (6.8%). See Table 17 for detailed demographics and Table 18 for countries of family roots.

## Measures

See Tables 19 and 20 for descriptive statistics at Time One (T1) and Time Two (T2). The same scales from Study 1 were used in Study 2, namely, age, gender, internal ( $\omega = .77$ ), external ( $\omega = .84$ ), power ( $\omega = .85$ ) GPE, external ( $\omega = .85$ ) and internal ( $\omega = .83$ ) political efficacy, self-definition ( $\omega = .89$ ), self-investment ( $\omega = .94$ ), and social persuasion ( $\omega = .96$ ). Additionally, new scales were added to examine the new ethnic GPE scale further. These scales included:

**Acculturative Stress.** To measure acculturative stress, a 24-item scale by Mena (1987) was used. This is a Likert-type scale measured from 1 (not stressful) to 5 (extremely stressful).

Two examples are “I feel uncomfortable when others make jokes about or put down people of my ethnic background” and “It bothers me when people pressure me to assimilate” ( $\omega = .94$ ).

**Political Participation.** An 18-item scale developed by Gopal and Verma (2017) was used to measure political participation. This Likert-type scale is measured from 1 (never) to 5 (always). Examples of items are “I attend political rallies” and “I search on internet about politics” ( $\omega = .88$ ).

**Political Knowledge.** I modified the scale by Carpini and Keeter (1993) to measure political knowledge. It is a 5-item scale that asks about the government. There was originally only one open-ended item, but I added another one. The original open-ended item asked who the vice president of the US was. Since Kamala Harris has high name recognition for being the first woman vice president, I added a question about the latest justice appointed to the Supreme Court. I also added multiple-choice questions targeting Latino voting rights, such as questions about voting place jurisdictions and bilingual options. This allowed me to assess knowledge of voting information that could influence Latino Voting. There are correct answers for each item, and the score was calculated by the sum of correct answers.

**Voting Intention and Behavior.** The same questions from Study 1 were added to the Phase I Prolific sample to measure voting intentions. For the post-election survey, the intention question was changed to ask whether participants voted in the 2022 midterm election, which assessed *voting behavior*. *Post-election*, I also examined whether participants (1) went with someone to vote or if they went alone and (2) plan to take others to vote with them in the future.

Finally, a previous behavior/intent variable from the pre-election survey was created by summing four items from the pre-election survey (Phase 1) to make a continuous variable of intention/behavior. Based on the theory of planned behavior (Ajzen, 1991), the items included:

(1) voting in the 2020 presidential election, (2) voting in the 2022 primary, (3) being registered to vote, and (4) intent to vote in the 2022 midterm election. This was done in part because structural equation modeling does not allow for dichotomous mediators.

**Social Capital.** To measure social capital, I used items from two scales. Bonding and bridge questions were modified from Albarracin and Valeva (2011). Examples of bonding and bridge ( $\omega = .67$ ) questions are the following, respectively: “In the past five years, have you or a family member experienced discrimination?” (Discrimination usually makes individuals closer to their ethnic and racial groups) and “I attend social functions with non-Hispanic/non-Latino White Americans.” To measure trust ( $\omega = .75$ ), I used questions from Archuleta and Miller (2011), and an example of this is: “How much do you trust your local government to do what is right?” Scores were summed for each subscale and analyzed.

**Future Politics Post-Election.** To assess voting behavior in the future, I summed three items from the post-election survey to make a continuous variable. Also, based on the theory of planned behavior, the items added were if they planned on voting again in the future, if they planned to help others to vote in the future, and if they plan on running for office in the future.

**Socioeconomic Status (SES).** To control for income, education, and employment, several questions were asked to create a composite index of SES developed in a study by Berzofsky (2014). In accordance with Index 3 (See Appendix B), I used “Which of the following best describes your level of education,” “What is your current household annual income in dollars (sliding scale) – 0 to 500,000,” and “Have you been employed in the last six months” to create the index. First, income was turned into a poverty level index based on the number of people in the household and reported income. To assist with coding, a research assistant assigned the percentage of the Federal poverty level to each participant via this website:

<https://home.mycoverageplan.com/fpl.html>. Then, based on the percentage of the poverty level, each participant was given a score ranging from 0 to 3. Next, education was re-coded on a scale from 0 to 3 (Appendix B). Employment was recoded to 0 (not employed in the last six months) and 1 (employed in the last six months). These three items were added to create an SES scale from 0 to 7.

### **Procedure**

Participants were recruited on Prolific, which is an online research recruitment platform that facilitates participant recruitment and data collection for researchers. Additional participants were recruited from Sona, an online recruitment platform used by the UT Arlington Psychology department. Eligible participants viewed a brief study description and were directed to an online survey hosted through QuestionPro to respond to the focal questions for this project. In Phase 1, the participants had to currently (1) live in the USA and be a citizen, (2) identify as Latino/Hispanic, and (3) be at least 18 years of age. Additionally, we asked for a gender-balanced sample. In Phase 2, participants who participated in Phase I were invited to participate. Given that it was a two-phase study, I targeted at least 600 participants to complete the study's first phase, before the midterm election, from the 6<sup>th</sup> to the 10<sup>th</sup> of October. I chose this date because October 11<sup>th</sup> is the last day to register in Florida, Texas, and Arizona, which involve states that have a large number of Latinos. That is, most states that have high numbers of Latinos are in the south and along the border. Limiting Phase 1 to end before the final voter registration date would give participants in the treatment condition time to register to vote in the midterm election (if they had not already).

Each participant was then reminded about voting, including their “voting manipulation” paragraph on October 31st, approximately one week before the election. Prolific allows you to

contact participants anonymously with their ID code via their system. Finally, the same participants were asked to complete the post-election survey, starting the day after the election on November 9<sup>th</sup> until December 5<sup>th</sup>.

As part of the survey, participants were randomly assigned to one of four conditions. First, participants were assigned to either create a plan for voting or not (plan versus no plan). Second, they read an essay highlighting why voting was important for the individual (control) or an essay highlighting why Latinos voting together is important (treatment). These four conditions were the treatment plus plan, treatment only, control plus plan, and control only. In the control/individual political efficacy plus plan condition, participants were told about the importance of voting at the individual level. They were then asked to make a plan to vote for themselves. In the control/individual-only condition they were only told about the importance of voting at the individual level. In the treatment/group efficacy plus plan condition, participants were told about the importance of voting for Latinos as a group and asked to make a plan to vote for them and a friend/family member. In the treatment/group efficacy-only condition, participants were told about the importance of voting for Latinos as a group. In the treatment/group efficacy condition, they were only told about the importance of voting for Latinos as a group. The treatment condition was created to tap into Latino culture's collectivist nature, encouraging participants to vote in higher numbers. Care was taken to keep the content and task content virtually identical.

**Stimuli.** For the manipulation at the end of the survey, I used the following two paragraphs that were randomly assigned to participants:

Control:

Exercising your right to vote is more important than ever. Did you know that women's suffrage decreased child death rates by 8 to 15%? Did you also know that Voting Rights Act reduced economic inequality and increased health spending? Voting was even associated with improved mental health and greater socioeconomic status. Multiple issues can affect local communities, such as too much garbage, pollution, and fewer parks and green space, which can also affect health. It is important that everyone gets out and votes because politicians are more likely to pay attention when we all vote. If more people vote, it will send a message to politicians that more people are active and aware. More importantly, your participation will benefit your local community on issues important to your community personally. Voting is a right that everyone needs for their community's progress and well-being. Let's vote!

Provide a brief bulleted list to get ready to vote in your local community. For example, have you registered to vote before the deadline? When is the registration deadline? Will you be voting early, mail-in, or on election day? Do you know where to vote? Do you have transportation? Will you celebrate voting after (e.g., wear your voting sticker and post a selfie). Have you completed these steps yourself?

Treatment:

Exercising your right to vote is more important than ever. Did you know that women's suffrage decreased child death rates by 8 to 15%? Did you also know that the Voting Rights Act reduced economic inequality and increased health spending? Voting was even associated with improved mental health and greater socioeconomic status. Within the Latino communities, environmental issues can affect local communities, such as too

much garbage, pollution of water and air, and fewer parks and green space, which can also affect their health. It is important that Latino/as get out and vote because politicians are more likely to pay attention to groups that vote. If more Latino/as begin to vote, it will send a message to politicians that Latinos are politically active and aware. More importantly, your participation will benefit the Latino community on issues that are important to your community personally. Voting is a right that Latinos/as need for their progress and well-being. ¡A votar!

Provide a brief bulleted list to get ready to vote for both you and a friend/family member. For example, if you have registered to vote, can you find a friend/family member to register to vote before the deadline with you? When is the registration deadline? Can you plan to go and vote with others (e.g., carpool), or will you go alone? Will you and a friend/family member be voting early, mail-in, or on the day of the election? Do you and your friends/family know where to vote? Will you go out and celebrate voting with your voting buddies after you are voted? Have you and a friend/family member completed these steps?

Additionally, I added three attention checks throughout the survey to ensure participants were involved and engaged (Abbey & Meloy, 2017). Prolific's attention check policy requires that participants pass at least two attention checks; if they do not, they are automatically redirected to the submission portal, which would reject them for payment. The attention checks were the following:

1. For this question, select purple and then move on to the next question. This is an attention check.
  - a. Blue
  - b. Green
  - c. Red
  - d. Purple

2. Which is not an animal? This is an attention check question, please select lettuce as your response.
  - a. Monkey
  - b. Cow
  - c. Lettuce
  - d. Whale
  
3. I would rather eat a piece of fruit than a piece of paper. This is an attention check, please select Agree as your response.
  - a. Strongly agree
  - b. Agree
  - c. Disagree
  - Strongly disagree

## Results

### **H8a and H8b: Ethnic GPE Structure and Its Nomological Network.**

I began by using confirmatory factor analysis to verify the factor structure of ethnic GPE: internal, external, and power. After confirming the factor structure, I examined the variables test-retest validity. Finally, I examined the relationship between the subfactors of my new Ethnic GPE scale and other variables that should be related to efficacy. Bivariate correlations and multivariate regression in SEM were run to examine the nomological network related to ethnic GPE. These constructs that were expected to be related to internal, external, and power GPE were individual political efficacy, group self-investment, group self-definition, political knowledge, social persuasion, and social capital (i.e., trust, bridge, and bond).

**Confirmatory factor analysis (H8a).** To verify the factor structure and confirm the three dimensions of ethnic GPE, two confirmatory factor analyses using pre-election data were conducted with the remaining 11 items. According to Hu and Bentler (1999), the indices to determine an appropriate fit are comparative fit index (CFI) and Tucker-Lewis index (TLI) to be greater than 0.900, root mean square error of approximation (RMSEA) less than 0.060, standardized root mean square residual (SRMR) less than 0.090, and a non-significant chi-square.



First, a one-factor CFA was compared to the proposed three-factor structure. Results showed a poor fit, meaning it did not fit the data well,  $\chi^2(65) = 2398.14$ ,  $p < .001$ , CFI = .23, TLI = .08, RMSEA = .25, SRMR = .21. Next, the proposed three-factor model was examined. The three-factor model fit the data well,  $\chi^2(62) = 235.13$ ,  $p < .001$ , CFI = .94, TLI = .93, RMSEA = .069, SRMR = .05. The three-factor model also fit the data better and was significantly different from the one-factor model,  $\Delta\chi^2(3) = 2163.01$ ,  $p < .001$  (see Table 21 and 22).

**Test-Retest Reliability.** To assess test-retest reliability of ethnic group political efficacy, interclass correlations (ICC) were conducted for each subscale of GPE. ICC estimates and their 95% confidence intervals were calculated using SPSS version 28, absolute-agreement, and two-way random effects model. Results showed that for internal GPE, the ICC estimate was .77, which indicates good reliability. For external GPE, the ICC estimate was .82, indicating good reliability. Finally, for power GPE, the ICC estimate was .74, indicating good reliability as well. *After the facets were confirmed with CFA, I again recoded external and internal GPE so that higher values represented higher levels of efficacy for the rest of the analyses.*

**The Nomological Network (H8b).** Using pre-election variables, I conducted a correlation matrix using SPSS v28, which demonstrated how the variables were associated (See Table 23 for results). Results showed that internal GPE was significantly positively associated to individual internal political efficacy, political knowledge, self-investment, social persuasion, and social capital subscales of bonding, bridge, and trust. On the other hand, external GPE had more negative associations with individual internal political efficacy, political knowledge, and bonding, but was positively associated with individual external political efficacy, and trust. Power GPE was positively related to internal political efficacy, political knowledge, self-

investment, self-definition, social persuasion, and social capital subscales, but negatively associated with external political efficacy. Similar findings were found at Time 2 (See Table 24).

Next, I conducted a multivariate regression using lavaan in R, which allowed me to estimate a single regression model with my three outcome variables of ethnic GPE simultaneously. Predictors included group self-investment and self-definition, acculturative stress, political persuasion, political knowledge, individual internal and external political efficacy, attention to politics, bridge, trust, and bonding (See Table 25 for results).

Group self-investment was positively related to internal and power GPE, and negatively associated with external GPE. Persuasion was only uniquely related to power GPE, with higher Power GPE being linked to higher levels of social persuasion. Latinos with higher levels of ethnic/Latino power reported having more people around them telling them to vote. Acculturative stress was negatively related to internal GPE. Political knowledge was positively associated with internal and power GPE but not external GPE.

Internal political efficacy was positively related to internal GPE but negatively associated with external GPE. Similarly, external political efficacy was positively related to external GPE and negatively related to power GPE. Out of the social capital subscales, bridge was positively associated with external GPE. Bonding was negatively related to external GPE but positively related to power GPE.

The multivariate regression model accounted for 51% of the variance in internal GPE, 22% for external GPE, and 44% for power GPE. Additionally, when the non-significant paths were held to a constant of zero, the overall model fit the data with acceptable fit indices,  $\chi^2(17) = 22.29, p = .174, RMSEA = .020, 95\% CI [.00, .05], TFI = .990, CFI = .996, SRMR = 0.014$ .

**H9: Voting and GPE**

A hierarchical logistic regression was conducted to test if participants with higher levels of GPE intended to vote in the midterm election. A second hierarchical logistic regression was performed to investigate if participants who had higher levels of GPE had higher odds of voting in the midterm. Both logistic regressions included the control variables of individual political efficacy, age, SES, and gender. In the first step of both regressions, control variables were entered: SES, age, and gender (binary of female and male). In the second step, individual internal and external political efficacy were entered. The third and final step included group internal, external, and power political efficacy.

The first hierarchical logistic regression with the intention to vote as an outcome revealed to be an overall good model that fit the data,  $\chi^2(8) = 54.43, p < .001$  Cox & Snell  $R^2 = .09$ , Nagelkerke  $R^2 = .16$ . For every block in the logistic regression, there was significant improvement of model fit when adding additional variables to that step. In block one, entering the control variables of SES, age, and gender significantly improved the model from the constant,  $\chi^2(3) = 21.32, p < .001$  Cox & Snell  $R^2 = .04$ , Nagelkerke  $R^2 = .06$ . In block two, entering individual internal and political efficacy also significantly improved the model,  $\Delta\chi^2(2) = 23.14, p < .001$  Cox & Snell  $\Delta R^2 = .04$ , Nagelkerke  $\Delta R^2 = .07$ . Given the blocks were nested, the change from Block 2 to Block 3 can be examined. The change was significant when adding GPE,  $\Delta\chi^2(3) = 10.05, p = .018$ , Cox & Snell  $\Delta R^2 = .01$ , Nagelkerke  $\Delta R^2 = .03$ , SES was a significant predictor of intention to vote in the midterm,  $b = .20, SE = .08, Wald = 6.01, p = .014$ ,  $\exp(B) = 1.22, 95\% CI \exp(B) [1.04, 1.43]$ , meaning that participants with higher socioeconomic status were 1.22 more likely to have the intention to vote in the midterm. Gender was also a significant predictor of intention to vote in the midterm,  $b = .61, SE = .25, Wald = 5.68, p = .017$ ,

$\exp(B) = 1.83$ , 95% CI  $\exp(B)$  [1.04, 1.43], meaning that female participants were 1.83 more likely to intend to vote in the midterm. Additionally, individual internal political efficacy significantly predicted intention to vote,  $b = .69$ ,  $SE = .18$ ,  $Wald = 15.43$ ,  $p < .001$ ,  $\exp(B) = 2.00$ , 95% CI  $\exp(B)$  [1.42, 2.17], which means that participants who had higher internal political efficacy were two times more likely to have the intention to vote in the midterm.

When inspecting our main variables of interest, internal, external, and power group political efficacy, only power GPE significantly predicted intention to vote in the midterm after entering the control variables,  $b = .39$ ,  $SE = .16$ ,  $Wald = 5.67$ ,  $p = .017$ ,  $\exp(B) = 1.47$ , 95% CI  $\exp(B)$  [1.07, 2.02]. This means that participants who had higher levels of power GPE were 1.47 times more likely to have the intention to vote in the midterm. For more detailed results about all the variables, see Table 26.

The second hierarchical logistic regression revealed to be an overall good model that fit the data on the outcome voting in the midterm election,  $\chi^2(8) = 56.64$ ,  $p < .001$  Cox & Snell  $R^2 = .12$ , Nagelkerke  $R^2 = .17$ . For every block in the logistic regression, there was significant improvement of model fit when adding additional variables to that step. In block one, entering the control variables of SES, age, and gender significantly improved the model from the constant,  $\chi^2(3) = 28.80$ ,  $p < .001$  Cox & Snell  $R^2 = .06$ , Nagelkerke  $R^2 = .09$ . In block two, entering individual internal and political efficacy also significantly improved the model,  $\Delta\chi^2(2) = 21.50$ ,  $p < .001$  Cox & Snell  $\Delta R^2 = .04$ , Nagelkerke  $\Delta R^2 = .06$ . Even though the overall model in the third block was a good fit, there was not a significant change to the fit of the model when entering GPE, compared to block two,  $\Delta\chi^2(3) = 6.34$ ,  $p = .096$ , Cox & Snell  $\Delta R^2 = .02$ , Nagelkerke  $\Delta R^2 = .02$ .

In the last (third) block and overall model, SES was a significant predictor of intention to vote in the midterm,  $b = .23$ ,  $SE = .07$ ,  $Wald = 9.73$ ,  $p = .002$ ,  $\exp(B) = 1.26$ , 95% CI  $\exp(B)$  [1.09, 1.46], meaning that participants with higher socioeconomic status were 1.26 more likely to vote in the midterm. Additionally, individual internal political efficacy significantly predicted voting in the midterm,  $b = .62$ ,  $SE = .16$ ,  $Wald = 15.08$ ,  $p < .001$ ,  $\exp(B) = 1.85$ , 95% CI  $\exp(B)$  [1.36, 2.53], which means that participants who had higher internal political efficacy were two times more likely to have voted in the midterm election.

When inspecting our main variables of interest, internal, external, and power group political efficacy, only power GPE significantly predicted voting in the midterm after entering the control variables,  $b = .39$ ,  $SE = .16$ ,  $Wald = 5.76$ ,  $p = .016$ ,  $\exp(B) = 1.48$ , 95% CI  $\exp(B)$  [1.07, 2.04]. This means that participants with higher levels of power GPE were 1.48 times more likely to vote in the midterm. For more detailed results about all the variables, see Table 27.

### **H10: Political Participation and GPE**

A hierarchical multiple regression analysis was used to examine whether ethnic GPE predicted the continuous dependent variable of political participation. In the first step, SES, age, and gender contributed significantly to the regression model,  $F(3, 462) = 3.98$ ,  $p = .008$ , and accounted for 2.5% of the variance in political participation. Entering individual political efficacy to the second step of the model significantly explained an additional 12.7% in the variance of political participation over and above the demographic control variables,  $\Delta F(2, 460) = 34.42$ ,  $p < 0.001$ . Lastly, entering the three variables that make up GPE into the third step of the model did not significantly explain additional variance in political participation. In the final model, gender significantly predicted political participation,  $b = 0.12$ ,  $SE = 0.06$ ,  $t(457) = 2.15$ ,  $p = .032$ ,  $sr^2 = 0.01$ , with women reporting higher levels of political participation. Individual

internal political efficacy also significantly predicted political participation,  $b = 0.28$ ,  $SE = 0.04$ ,  $t(457) = 7.07$ ,  $p < .001$ ,  $sr^2 = 0.09$ . Participants with higher levels of individual internal political efficacy reported higher political participation. For more detailed results about all the variables, see Table 28.

### **H11: Manipulated ethnic GPE and Voting**

Finally, categorical binary logistic regression was conducted to examine if there was a relationship between manipulating ethnic GPE (treatment) versus the control conditions for three binary outcome variables. As a reminder, the four conditions included treatment + plan, treatment only, control + plan, and control only. First, the results were analyzed with condition as a predictor. In a second model, control/treatment and plan/no plan were treated as separate predictors and entered on the first step, and their interaction was entered on the second step. The outcome variables for both models were the probability of voting in the midterm election, the probability of midterm voting with others, and the probability of voting with others in the future.

**Midterm Voting.** Results showed there was not a significant association between my four conditions for midterm voting,  $Wald(3) = 2.20$ ,  $p = .531$ ; participants were not more likely to vote if they were randomly assigned to a treatment condition compared to a control condition.

**Voting with others.** I then explored if manipulating ethnic GPE influenced whether participants went to vote with someone or alone. The experimental conditions did affect whether Latinos voted alone or with someone during the midterm election,  $Wald(3) = 8.66$ ,  $p = .034$ . Using the “control only” condition as the reference group, Latinos in the “treatment + plan” condition were more likely to have voted with someone else (friend/family/partner) compared to alone,  $b = .94$ ,  $SE = .35$ ,  $Wald = 7.43$ ,  $p = .006$ ,  $exp(B) = 2.57$ , 95% CI  $exp(B)$  [1.30, 5.07]. This

means those in the “treatment + plan” condition were 2.57 times more likely to have voted with someone else than those in the “individual voting is important control only” condition.

In the second model, results showed that Latinos in the treatment condition were more likely to have voted with someone else, compared to those in the individual efficacy as a control condition,  $b = .59$ ,  $SE = .23$ ,  $Wald = 6.29$ ,  $p = .012$ ,  $\exp(B) = 1.798$ , 95% CI  $\exp(B)$  [1.14, 2.84]. When comparing the groups as plan/no plan on whether they voted alone or with someone, results showed no statistical difference,  $Wald(1) = 1.37$ ,  $p = .242$ . The interaction between treatment X plan was not significant,  $b = .36$ ,  $SE = .47$ ,  $Wald = .58$ ,  $p = .45$ .

**Vote with others in the Future.** I then explored if manipulating ethnic GPE influenced whether participants would get others to vote in the future. Using the “control only” condition as the reference group, Latinos in the “treatment + plan” condition were more likely to get others to vote in the future,  $b = 1.06$ ,  $SE = .54$ ,  $Wald = 3.87$ ,  $p = .049$ ,  $\exp(B) = 2.88$ , 95% CI  $\exp(B)$  [1.00, 8.26]. Latinos in the “treatment + plan” condition were 2.88 times more likely to get others to vote in the future than those in the “individual voting is important control only” condition. In the second model, there were no significant effects for treatment/control, plan/no plan, or their interaction.

**Ancillary Analyses: Does Previous Behavior/Intent Mediate the Link between Ethnic GPE and Voting Behavior and Participation.**

To further assess the ethnic GPE subscales, a structural equation model was conducted in JASP, which uses lavaan in R. This analysis was performed with only participants who were 21 years or older at the time of the last presidential election, so they were eligible to vote in the previous presidential election ( $N = 522$ ). The endogenous variables in the model were internal, external, and power GPE. Background confounders were age, SES, gender, and individual

internal and external political efficacy. The mediator was the four-item continuous measure that included intent and previous voting behavior. Political participation and voting in the midterm election from time two were utilized as outcome variables. See Tables 29 and 30 for more detailed results. Notable findings include that voting action in the past significantly mediated the relationship between power GPE and voting in the 2022 midterm election. Similarly, voting action in the past mediated the relationship between power GPE and political participation.

### **General Discussion**

The purpose of this dissertation, across two studies, was to develop an ethnic group political efficacy scale and explore Latino voter participation around the midterm election of 2022. Scale development was based on individual political efficacy items (Craig & Maggiotto, 1982; Niemi et al., 1991) and group political efficacy items from a study on Black voters (Mangum, 2003). The focus on Latino voter participation was an attempt to understand low voter turnout in this demographic, compared to White and Black voters, and to experiment with messaging to increase voter participation within the Latino community. A summary of findings, implications, limitations, and future research directions will be discussed below.

Findings across both studies demonstrated that scale development psychometric properties were acceptable for ethnic group political efficacy. It was hypothesized that the measure would have three factors. Three factors were expected because the scales were modified from existing scales measuring political efficacy at the individual level (internal and external political efficacy; Craig & Maggiotto, 1982; Niemi et al., 1991) and from a group political efficacy scale explicitly made for the Black community (Mangum, 2003). Individual political efficacy has been associated with several types of political participation in different samples. For example, introducing a civic intervention to high school students increased their political efficacy and, in



turn, their political attentiveness (Pasek et al., 2008). Similarly, in an EU study, young adults with greater internal political efficacy were likelier to be involved in political activism (Strohmeier et al., 2017). In a German sample, a sequential mediation showed that political knowledge predicted greater internal political efficacy, which then increased intention to vote, which in turn, predicted voting in two federal elections (Reichert, 2016). However, only a few studies have focused on or targeted Latinos when investigating political efficacy (Michelson, 2000; Popan & Hinojosa, 2017). Therefore, there was sufficient empirical evidence to hypothesize that a modified group efficacy scale would have similar factor properties as the individual political efficacy scales.

When inspecting intercorrelations from Study 1 and Study 2, individual external political efficacy was consistently negatively related to power GPE. One possible explanation for these results is that when participants feel more external efficacy about politicians and the government, they might not necessarily believe their efficaciousness to band together to make a difference will affect change for their ethnic community. In a Black sample, Mangum (2003) found that Black group efficacy was predictive of voter participation and not individual efficacy. In this sample, individual external efficacy was negatively related to power GPE.

Ethnic GPE was expected to be associated with a higher likelihood of Latinos' intention to vote, voting in the 2022 midterm election, and being more engaged in political participation after controlling demographic variables and individual political efficacy. However, internal and external GPE did not have significant predictive power on intent to vote and self-reported voting in the midterm election. Power GPE did predict voting intent even after accounting for control variables. There was evidence that power GPE is predictive of Black voter participation (Mangum, 2003) and in these two studies with Latino samples. In addition to power GPE being

predictive of intent to vote and voting, individual internal political efficacy was also a consistent predictor of intention to vote and voting in the midterm, as well as a predictor of political participation.

This particular result about internal political efficacy contradicts another study conducted in a Latino sample. The study by Popan and Hinojosa (2017) found that external political efficacy (but not internal) was predictive of Latino voter participation. Nevertheless, the results of power GPE are still an encouraging finding since it can help explain and increase Latino voter participation in the United States. For Black and Latino participants, belief in the group's power on political outcomes could increase voter participation. Future research could measure other forms of group consciousness besides self-identification, which was the only subcomponent of Miller (1981) measured in this study. Measuring *solidaridad* or linked fate might help explain the predictive nature of power GPE (Marsh & Ramirez, 2019).

Another important finding involved the experimental manipulation of power GPE. While the experimental condition (group GPE plus making a plan to vote) did not increase the likelihood of Latinos voting in the midterm, it did affect whether Latinos reported voting with others in the 2022 midterm election. Those in a condition that emphasized the Latino ethnic group and were instructed to make a plan to vote for them and another person were more likely to vote with someone else rather than alone. Making salient to participants their shared collective identity and culture influenced whether they voted with someone. Additionally, Latinos in the treatment plus plan condition reported a higher likelihood of getting others to vote. Taken together increased voting with others could increase Latino voter participation.

I chose to add “¡A votar!” to enhance the power GPE manipulation further, but the choice language alone may influence voting. More specifically, understanding how language influences

voting may also be critical in Latino communities. Recent research from polling companies says that broadcasting politicians' ads on TV and online in Spanish is related to more political engagement among bilingual Latinos (Equis Research, 2022). Lavariega Monforti and colleagues (2013) also found in a series of experiments that bilingual Spanish-speaking Latino Republicans preferred a bilingual candidate, regardless of ethnicity. Finally, one study conducted in two primarily Latino neighborhoods, one working-class and the other middle-class, showed that Latino identity-based messages were more likely to increase Latino voter turnout in both neighborhoods, compared to an American identity-based message (Valenzuela & Michelson, 2011). One exception was a study by Mann and colleagues (2020) that found that sending only English mailers (compared to bilingual mailers) to Latinos increased voter turnout.

Having a Spanish component in messaging highlights the Latino identity, which has shown to increase political participation in previous literature and this study. Findings from Study 2 suggest it may be crucial to tap into the Latino identity through language of the Latino community when attempting to get out the vote. Language is part of the Latino culture, and when hearing Spanish, the ethnic group becomes salient, promoting thinking about the collective instead of only the individual. Public officials and future research could further research this hypothesis by experimenting with messaging during campaigns, which is already happening within political campaigns.

In the exploratory multivariate regression, social capital predicted greater power GPE within Latinos. The predictive subscale of social capital was bonding (feeling more connected within their social network/ethnicity), which supports the idea that tapping into Latino's collective culture would be helpful to political participation. On the other hand, less bonding and greater bridging social capital predicted greater external GPE, which suggests that external GPE is about

believing politicians and the government will be responsive to their ethnic group. If Latinos already have ties to a diverse group within their social network, it would explain why they may be more likely to believe in mostly White politicians.

Interventions to increase Latino voter participation should focus on tapping their ethnic collective through messaging. While Latinos are not a monolith, they are still marginalized in the United States. Latinos have shared experiences, culture, and language that can become salient to the individual by taking different approaches. For example, La Union del Pueblo Entero (LUPE) in south Texas organized block parties in Latino communities to get out the vote during the 2022 midterm election. These block parties were like family gatherings or cookouts that Latinos have as part of their culture. Organizing events that take culture and community into focus while reaching out to the Latino community may be a critical step in increasing Latino vote. In the Black community, politicians often go to churches to campaign. During the last presidential election, President Biden took action by regularly attending church events in Black communities. The same should be replicated within the Latino community since many of them are religious and attend church as well. Actions like incorporating culture and community are more likely to be seen as making a genuine effort to reach Latinos and take an interest in the issues we care about.

Another critical aspect to consider when examining Latinos for political participation is how many are eligible to vote by state. To calculate this, researchers have utilized the Latino registration parity ratio, dividing the percent of Latinos that are registered voters by the number of Latinos in the general population (percent electorate/ percent population; Ramirez, 2013). As the number reaches 1, more parity is obtained. Ramirez (2013) points out that most Latinos (over 78%) live in ten states: Arizona, California, Colorado, Florida, Illinois, Nevada, New Jersey,

New Mexico, New York, and Texas. He also highlights that these ten states comprise 216 Electoral College votes, or 80% of the 270 electoral votes necessary to win the presidency. Therefore, it would be a good idea to target Latino non-voters in states with a low parity ratio in future research about voter participation. However, the parity ratio is one of many factors to consider. Ramirez (2013) highlights that population growth by state is also essential, which includes the citizen voting age population (CVAP). For example, New York is the state that came the closest to parity (0.90) in 1998 but took a stark decline to 0.51 in 2002. Ramirez (2013) explains that this can happen due to population shifts within each state, either growth or loss.

A key Latino group to target is what DeSipio (1996) calls “reluctants.” These Latinos are eligible to vote but are not registered to vote, which contrasts with Latinos not of voting age or undocumented. In 2010, only approximately half of eligible Latinos were registered to vote, with 80% of unregistered Latino voters residing in the ten states mentioned previously (Ramirez, 2013). However, voter registration has significantly increased in the past few elections. For example, there was a 39% increase in the Latino eligible voting population from 2000 to 2018, most of whom were coming of age (Pew Research, 2020). There was also an increase in voter turnout in presidential elections from 2016, with 45% of Latino voter turnout, to 2020, with about 53% (McDonald, 2023). Considering these factors would significantly improve future research in targeting nonvoting Latinos.

Lastly, previous voter participation intent/behavior mediated the relationship between power GPE and voting in the midterm election. Previous voter participation intent/behavior also mediated the relationship between power GPE and political participation at time 2 (post-election). Latinos who were more ethnically group efficacious and who reported past participation/intention to do so, in turn, were more likely to vote and have more political

participation at Time 2. Both mediations are congruent with the literature saying that previous political participation predicts future participation (Dinas, 2012). In future research, it would be beneficial to investigate group GPE as a moderator with group identification, having political participation as an outcome. Group identification predicts behavior in a study from Lyons et al. (2010). In the Lyons et al. (2010) study, group identification predicted negative behavior toward Arab immigrants at mean and high levels of group narcissism. In Latino political participation, Power GPE may predict greater political involvement with higher levels of group identification.

### **Limitations**

While these studies furthered the knowledge of political efficacy and Latino voter participation, there are a few limitations. For study two, participants in the Prolific sample could self-select to participate. Given that they could see the name of the study, those who are more politically involved could have decided to participate because it is something they are interested in already. Most of my Prolific sample reported that they voted in the midterm election. That could have been why I did not find that participants in the treatment condition were more likely to vote than the control condition. Future research would benefit from using deception about the study's true purpose to obtain participants who are not so interested in politics or target non-voters specifically.

In addition, participants in the Prolific sample had higher education and income levels on average compared to the average Latino living in the U.S. The average income for all Latinos in the U.S. was around \$30,000 in 2017 (Kochhar, 2019), but my sample's average was \$102,234, and median was \$66,000, which are much higher. Similarly, only 23% of Hispanics ages 25-29 had a bachelor's degree in 2021 (Mora, 2022), but in my sample, 35% had a bachelor's. Given past well-established research that education and income are strong predictors of voter

participation (Arvizu & Garcia, 1996; Hastings, 1956), this could have affected the results of the experimental part of the study and the study as a whole.

Regarding the ethnic group political efficacy scale, there was evidence that the subscale of power GPE had more reliable predictive outcomes, compared to internal and external GPE, even after accounting for individual political efficacy and other control variables. It might have been that the individual and group internal and external political efficacy are too similar. That is why they did not seem to predict the intention to vote or voting in the midterm. Since power GPE was modified from a Black sample, it is safe to say that it replicates and extends to the Latino community, which is promising. A future study could explore the power GPE scale and manipulation with a more representative sample of U.S. Latinos that only rarely participate in politics. Participants may need to be recruited in both English and Spanish to obtain such a sample. A subset of the Latino population is eligible to vote but not fluent in English. Additionally, the use of language along with the power GPE manipulation should be explored more carefully in bilingual samples.

## **Conclusion**

Overall, new empirical evidence was gathered across these two studies and contributed to the body of literature on Latino political participation and political efficacy. All three subscales of ethnic group political efficacy demonstrated good psychometric properties. Additionally, each facet had unique associations with other important variables associated with voting behavior. Still, power GPE was the notable outlier in consistently predicting intent to vote, voting in the 2022 midterm, and getting others to vote in the future. It is sufficient evidence to keep investigating this variable within the Latino community. Such samples could target Latinos by state or geographic location, nationality of origin, lower socioeconomic status and education, and

non-voters. Similarly, the experimental condition that highlighted the Latino ethnicity and was instructed to make a plan to vote for themselves and someone else was related to a higher likelihood of participants voting with someone else rather than alone. This is an important finding when politicians and organizations are attempting to increase voter turnout within the Latino population through messaging. These results can be a springboard for future research on this topic and potentially applied in actual elections to increase Latino voter participation.



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**Table 1***Initial Items on Ethnic Group Political Efficacy Scale*

<b>Initial Items</b>	<b>Final Factors</b>
1. People in the Latino/a/x community are well-qualified to participate in politics.	
2. People in the Latino/a/x community have a pretty good understanding of the important political issues facing our country.	Internal
3. Other minorities/ethnicities seem to have an easier time understanding complicated issues than people in the Latino/a/x community.	Internal
4. A Latino/a/x person could do as good a job in public office as most other people.	
5. I often don't feel sure of the Latino/a/x community when talking with other people about politics and government.	Internal
6. People in the Latino/a/x community often don't feel confident when talking about politics and government with other people.	Internal
7. I think the Latino/a/x community is as well-informed about politics and government as most people.	
8. Sometimes politics and government seem so complicated that the Latino/a/x community can't really understand what's going on.	Internal
9. Most public officials are truly interested in what the Latino/a/x community thinks.	
10. Candidates for office are only interested in the Latino/a/x community's votes, not in their opinions.	External
11. Politicians are supposed to be the servants of the Latino/a/x community, but too many of them think they are the masters.	External
12. Generally speaking, those we elect to public office lose touch with the Latino/a/x community pretty quickly.	External
13. I don't think public officials care much what the Latino/a/x community thinks	External
14. If enough Latino/a/x vote, they can make a difference in who gets elected.	Power
15. People from the Latino/a/x community can make a difference in who gets elected.	Power
16. If Latino/a/x people, other minorities, the poor, and women pulled together, they could decide how this country is run.	Power

**Table 2**  
*Factor Loadings for GPE Scale*

	External GPE	Power GPE	Internal GPE	Uniqueness
GPE12	0.852			0.394
GPE13	0.838			0.522
GPE11	0.515			0.641
GPE9	-0.685			0.746
GPE10	0.369			0.721
GPE15		0.834		0.309
GPE14		0.815		0.361
GPE16		0.601		0.572
GPE6	0.416		0.400	0.617
GPE8			0.587	0.638
GPE5			0.872	0.732
GPE3			0.537	0.684
GPE2			-0.467	0.783

*Note.* Applied rotation method is PROMAX.

**Table 3***GPCM Estimates for Item Discrimination and Category Threshold for Internal GPE.*

	Discrimination parameter $\alpha_i$	Category threshold parameters			
		$\beta_{i,1}$	$\beta_{i,2}$	$\beta_{i,3}$	$\beta_{i,3}$
<b>GPE2</b>	0.554	-1.763	0.949	1.422	4.276
<b>GPE3</b>	0.691	-3.087	-0.526	1.419	2.936
<b>GPE5</b>	0.708	-1.794	-0.153	1.534	3.646
<b>GPE6</b>	0.912	-2.135	-0.158	0.280	2.33
<b>GPE8</b>	0.945	-1.477	0.009	0.601	2.485

**Table 4.***GPCM Estimates for Item Discrimination and Category Threshold for External GPE.*

	Discrimination parameter $\alpha_i$	Category threshold parameters			
		$\beta_{i,1}$	$\beta_{i,2}$	$\beta_{i,3}$	$\beta_{i,3}$
<b>GPE9</b>	1.035	-1.894	-0.893	-0.287	1.195
<b>GPE10</b>	0.47	-1.964	-1.56	-0.929	1.957
<b>GPE11</b>	0.717	-1.900	-1.323	0.424	2.088
<b>GPE12</b>	2.684	-1.699	-1.107	-0.077	1.117
<b>GPE13</b>	2.221	-1.615	-0.821	-0.225	0.919

**Table 5***GPCM Estimates for Item Discrimination and Category Threshold for Power GPE.*

	Discrimination parameter $\alpha_i$	Category threshold parameters			
		$\beta_{i,1}$	$\beta_{i,2}$	$\beta_{i,3}$	$\beta_{i,3}$
<b>GPE14</b>	3.644	-2.455	-1.565	-0.874	0.124
<b>GPE15</b>	2.703	-2.507	-1.793	-1.115	0.21
<b>GPE16</b>	1.163	-2.523	-2.483	-0.906	0.206

**Table 6***Statistics for the Differential Analysis by Each Facet of GPE*

	Number of Categories	Probabilities			McFadden Pseudo R <sup>2</sup>		
		$\chi^2_{12}$	$\chi^2_{13}$	$\chi^2_{23}$	R <sup>2</sup> <sub>12</sub>	R <sup>2</sup> <sub>13</sub>	R <sup>2</sup> <sub>23</sub>
<b>Internal</b>							
GPE2	4	0.9686	0.6149	0.2721	0.0001	0.0026	0.0025
GPE3	4	0.7156	0.8138	0.6367	0.0007	0.0016	0.0009
GPE5	4	0.0013*	0.0007*	0.0512	0.0126	0.0182	0.0056
GPE6	4	0.0001*	0.001*	0.8721	0.0175	0.0178	0.0003
GPE8	4	0.114	0.3300	0.8762	0.0004	0.0042	0.000
<b>External</b>							
GPE9	4	0.1399	0.0138	0.0139	0.0037	0.0066	0.0143
GPE10	5	0.3910	0.5875	0.6228	0.0016	0.0028	0.0014
GPE11	5	0.1550	0.1455	0.2127	0.0033	0.0053	0.0044
GPE12	4	0.4656	0.1093	0.0491	0.0015	0.0010	0.0038
GPE13	4	0.1631	0.3480	0.6611	0.0035	0.0035	0.0008
<b>Power</b>							
GPE14	4	0.4455	0.6276	0.6132	0.0017	0.0028	0.0010
GPE15	3	0.8697	0.5364	0.2404	0.0003	0.0038	0.0034
GPE16	3	0.2904	0.2573	0.2425	0.0029	0.0061	0.0033



**Table 7.***Intercorrelations with Group Political Efficacy*

	Internal GPE	Power GPE	External GPE
Internal Efficacy	.175**	.190**	-.006
External Efficacy	.058	-.278**	.448**
Political Knowledge	.139**	.162**	.052
Self-Investment (In-Group)	.077	.202**	-.434**
Self-Definition (In-Group)	-.030	.152**	-.185**
Persuasion	.028	.205**	-.075
Acculturative Stress	-.088*	.037	-.174**
Environmental Concerns	.009	.242**	-.066
Conservative Political Orientation	-.006	-.232**	.102*

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Table 8.***Ethnic GPE predicting group self-investment.*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations	
	B	Std. Error	Beta			Zero-order	Semi-Partial
Constant	4.82	.392		12.305	<.001		
Latino versus White	-2.306	.131	-.690	-17.649	<.001	-.741	-.526
Latino versus Black	-.201	.117	-.056	-1.725	.085	.148	-.051
Latino versus Asian	-.263	.106	-.084	-2.477	<.014	.097	-.074
Male versus Female	.155	.098	.048	1.579	.115	.055	.047
Internal Efficacy	.017	.060	.009	.278	.781	.008	.008
External Efficacy	.205	.068	.109	3.004	.003	.061	.090
Political Knowledge	-.011	.034	-.010	-.314	.754	-.085	-.009
Power GPE	.167	.058	.097	2.897	.004	.205	.086
Internal GPE	.185	.059	.100	3.148	.002	.069	.094
External GPE	-.216	.065	-.139	-3.328	<.001	-.421	-.099

**Table 9.***Ethnic GPE predicting group self-definition*

Model	Unstandardized Coefficients		Standardized Coefficients			Correlations	
	B	Std. Error	Beta	t	Sig.	Zero-order	Semi-Partial
Constant	4.536	.549		8.266	<.001		
Latino versus White	-1.294	.183	-.390	-7.071	<.001	-.385	-.297
Latino versus Black	-.340	.164	-.096	-2.079	.038	.004	-.087
Latino versus Asian	-.136	.149	-.043	-.912	.362	.060	-.038
Male versus Female	.043	.137	.013	.311	.756	.030	.013
Internal Efficacy	-.090	.083	-.048	-1.075	.283	-.060	-.045
External Efficacy	.068	.096	.036	.710	.478	.040	.030
Political Knowledge	-.112	.048	-.104	-2.339	.020	-.138	-.098
Power GPE	.259	.081	.151	3.210	.001	.157	.135
Internal GPE	.030	.083	.016	.368	.713	-.022	.015
External GPE	.032	.091	.021	.354	.724	-.179	.015

**Table 10.***Ethnic GPE predicting group persuasion.*

Model	Unstandardized Coefficients		Standardized Coefficients			Correlations	
	B	Std. Error	Beta	t	Sig.	Zero-order	Semi-Partial
Constant	2.405	.621		3.875	<.001		
Latino versus White	-.055	.207	-.015	-.265	.791	-.011	.012
Latino versus Black	.088	.185	.023	.473	.636	.063	.021
Latino versus Asian	-.241	.168	-.071	-1.434	.152	-.120	-.062
Male versus Female	.533	.155	.151	3.430	<.001	.129	.149
Internal Efficacy	.482	.094	.237	5.111	<.001	.271	.222
External Efficacy	.032	.108	.016	.297	.767	-.066	.013
Political Knowledge	.094	.054	.080	1.732	.084	.134	.075
Power GPE	.201	.091	.107	2.207	.028	.196	.096
Internal GPE	.030	.093	.015	.324	.746	.059	.014
External GPE	-.062	.103	-.037	-.603	.547	-.082	-.026

**Table 11.**  
*Ethnic GPE predicting mid-term voting intentions.*

	B	S.E.	Wald	Sig.	Exp(B)	95% C.I. for EXP(B)	
						Lower	Upper
Internal Efficacy	.887	.166	28.690	<.001	2.428	1.755	3.360
External Efficacy	-.136	.173	.620	.431	.873	.622	1.225
Political Knowledge	.177	.086	4.173	.041	1.193	1.007	1.414
Power GPE	.441	.148	8.927	.003	1.555	1.164	2.077
Internal GPE	-.233	.156	2.249	.134	.792	.584	1.074
External GPE	-.002	.150	.000	.988	.998	.743	1.340
Constant	.827	.106	60.342	<.001	2.286		

**Table 12***Personal and Group Political Efficacy as a Mediator for Intention to Vote*

	Effect	Boot SE	Boot LLCI	Boot ULCI
	Ethnic ->	Power GPE ->	Intend to Vote	
Latino versus White	<b>-.1765*</b>	<b>.0762</b>	<b>-.3521</b>	<b>-.0554</b>
Latino versus Black	-.0321	.0545	-.1444	.0734
Latino versus Asian	<b>-.2125*</b>	<b>.0806</b>	<b>-.3942</b>	<b>-.0767</b>
	Ethnic ->	Internal GPE ->	Intend to Vote	
Latino versus White	-.0190	.0263	-.0850	.0185
Latino versus Black	-.0834	.0717	-.2433	.0428
Latino versus Asian	-.0205	.0291	-.0958	.0215
	Ethnic ->	External GPE ->	Intend to Vote	
Latino versus White	-.0258	.2193	-.4376	.4008
Latino versus Black	.0015	.0235	-.0477	.0540
Latino versus Asian	-.0055	.0492	-.1073	.0942
	Ethnic ->	Internal Political Efficacy ->	Intend to Vote	
Latino versus White	.0648	.0879	-.1126	.2338
Latino versus Black	.0096	.0921	-.1710	.1853
Latino versus Asian	<b>-.2253*</b>	<b>.0832</b>	<b>-.4095</b>	<b>-.0817</b>
	Ethnic ->	External Political Efficacy ->	Intend to Vote	
Latino versus White	.0145	.0314	-.0386	.0938
Latino versus Black	.0128	.0298	-.0379	.0856
Latino versus Asian	-.0056	.0216	-.0574	.0360

**Table 13***Personal and Group Political Efficacy as a Mediator for Self-Investment*

	Effect	Boot SE	Boot LLCI	Boot ULCI
	Ethnic ->	Power GPE ->	Self-Investment	
Latino versus White	<b>.0592*</b>	<b>.0283</b>	<b>-.1242</b>	<b>-.0148</b>
Latino versus Black	-.0113	.0197	-.0580	.0206
Latino versus Asian	<b>-.0710*</b>	<b>.0305</b>	<b>-.1400</b>	<b>-.0199</b>
	Ethnic ->	Internal GPE ->	Self-Investment	
Latino versus White	.0171	.0153	-.0111	.0505
Latino versus Black	<b>.0725*</b>	<b>.0295</b>	<b>.0228</b>	<b>.1357</b>
Latino versus Asian	.0184	.0181	-.0119	.0593
	Ethnic ->	External GPE ->	Self-Investment	
Latino versus White	<b>-.2460*</b>	<b>.0737</b>	<b>-.3917</b>	<b>-.1059</b>
Latino versus Black	.0133	.0234	-.0318	.0625
Latino versus Asian	<b>-.0541*</b>	<b>.0255</b>	<b>-.1122</b>	<b>-.0112</b>
	Ethnic ->	Internal Political Efficacy ->	Self-Investment	
Latino versus White	-.0002	.0063	-.0144	.0136
Latino versus Black	.0000	.0053	-.0111	.0119
Latino versus Asian	.0007	.0150	-.0273	.0331
	Ethnic ->	External Political Efficacy ->	Self-Investment	
Latino versus White	-.0246	.0203	-.0711	.0090
Latino versus Black	-.0218	.0218	-.0708	.0168
Latino versus Asian	.0104	.0191	-.0232	.0535

**Table 14***Personal and Group Political Efficacy as a Mediator for Self-Definition*

	Effect	Boot SE	Boot LLCI	Boot ULCI
	Ethnic ->	Power GPE ->	Self-Definition	
Latino versus White	<b>-.0769*</b>	<b>.0386</b>	<b>-.1634</b>	<b>-.0145</b>
Latino versus Black	-.0146	.0252	-.0746	.0287
Latino versus Asian	<b>-.0922*</b>	<b>.0433</b>	<b>-.1885</b>	<b>-.0199</b>
	Ethnic ->	Internal GPE ->	Self-Definition	
Latino versus White	-.0007	.0110	-.0243	.0240
Latino versus Black	-.0030	.0362	-.0729	.0713
Latino versus Asian	-.0008	.0120	-.0258	.0270
	Ethnic ->	External GPE ->	Self-Definition	
Latino versus White	.0186	.0964	-.1698	.2085
Latino versus Black	-.0010	.0099	-.0231	.0195
Latino versus Asian	.0041	.0226	-.0428	.0499
	Ethnic ->	Internal Political Efficacy ->	Self-Definition	
Latino versus White	-.0084	.0154	-.0470	.0157
Latino versus Black	-.0009	.0146	-.0321	.0297
Latino versus Asian	.0318	.0230	-.0082	.0817
	Ethnic ->	External Political Efficacy ->	Self-Definition	
Latino versus White	-.0092	.0155	-.0472	.0168
Latino versus Black	-.0081	.0143	-.0409	.0190
Latino versus Asian	.0039	.0116	-.0165	.0320



**Table 15***Personal and Group Political Efficacy as a Mediator for Persuasion*

	Effect	Boot SE	Boot LLCI	Boot ULCI
	Ethnic ->	Power GPE ->	Persuasion	
Latino versus White	<b>-.0915*</b>	<b>.0413</b>	<b>-.1843</b>	<b>-.0237</b>
Latino versus Black	-.0174	.0272	-.0749	.0340
Latino versus Asian	<b>-.1099*</b>	<b>.0434</b>	<b>-.2036</b>	<b>-.0345</b>
	Ethnic ->	Internal GPE ->	Persuasion	
Latino versus White	-.0018	.0122	-.0292	.0236
Latino versus Black	-.0076	.0408	-.0892	.0730
Latino versus Asian	-.0019	.0136	-.0339	.0257
	Ethnic ->	External GPE ->	Persuasion	
Latino versus White	-.0680	.1247	-.3192	.1729
Latino versus Black	.0037	.0144	-.0217	.0384
Latino versus Asian	-.0147	.0302	-.0807	.0409
	Ethnic ->	Internal Political Efficacy ->	Persuasion	
Latino versus White	.0321	.0451	-.0584	.1246
Latino versus Black	.0035	.0467	-.0930	.0951
Latino versus Asian	<b>-.1185*</b>	<b>.0435</b>	<b>-.2148</b>	<b>-.0414</b>
	Ethnic ->	External Political Efficacy ->	Persuasion	
Latino versus White	-.0030	.0175	-.0433	.0316
Latino versus Black	-.0026	.0168	-.0389	.0329
Latino versus Asian	.0012	.0121	-.0221	.0307

**Table 16***Personal and Group Political Efficacy as a Mediator for Political Knowledge*

	Effect	Boot SE	Boot LLCI	Boot ULCI
	Ethnic -> Power GPE	->	Pol. Knowledge	
Latino versus White	<b>-.0950*</b>	<b>.0389</b>	<b>-.1856</b>	<b>-.0323</b>
Latino versus Black	-.0181	.0290	-.0780	.0372
Latino versus Asian	<b>-.1139*</b>	<b>.0412</b>	<b>-.2073</b>	<b>-.0450</b>
	Ethnic -> Internal GPE	->	Pol. Knowledge	
Latino versus White	.0185	.0181	-.0099	.0603
Latino versus Black	<b>.0783*</b>	<b>.0387</b>	<b>.0141</b>	<b>.1644</b>
Latino versus Asian	.0199	.0204	-.0132	.0670
	Ethnic -> External GPE	->	Pol. Knowledge	
Latino versus White	.0379	.0890	-.1359	.2127
Latino versus Black	-.0020	.0101	-.0263	.0195
Latino versus Asian	.0083	.0215	-.0326	.0554
	Ethnic -> Internal Political Efficacy	->	Pol. Knowledge	
Latino versus White	.0197	.0289	-.0355	.0817
Latino versus Black	.0021	.0298	-.0561	.0621
Latino versus Asian	<b>-.0745*</b>	<b>.0305</b>	<b>-.1426</b>	<b>-.0226</b>
	Ethnic -> External Political Efficacy	->	Pol. Knowledge	
Latino versus White	.0059	.0133	-.0181	.0382
Latino versus Black	.0052	.0127	-.0202	.0332
Latino versus Asian	-.0025	.0095	-.0262	.0148

**Table 17**

*Participant Demographics for Study 2*

Variable	Frequency	Percent		Frequency	Percent
Gender			Political Orientation		
Male	278	47.4	Liberal	385	65.9
Female	278	47.4	Conservative	90	15.4
Nonbinary	22	3.7	Neither	109	18.6
Other	8	1.4			
Sex Assigned at Birth			Registered to Vote (Pre)		
Male	287	48.9	Not registered	46	7.8
Female	299	50.9	Registered	510	86.9
Prefer not to answer	1	0.2	Don't know	31	5.3
Race			Intent to vote in Midterm		
White	332	56.6			
Black	12	2.0	Yes	490	83.6
Asian	3	0.5	No	96	16.4
Native/ Indigenous	28	4.8			
Multiracial/mestizo/other	211	35.9	Registered to Vote (Post)		
Education			Yes	466	79.4
Less than high school	3	0.5	No	31	5.3
High school or equivalent	89	15.2	Voted in the Midterm		
Some college	171	29.1			
Associate's degree	71	12.1			
Bachelor's degree	207	35.3	Yes	359	61.2
Master's or above	45	7.7	No	137	23.3
Unknown	1	0.2	Voted Alone or With Someone		
Employment past 6 months			Alone	189	32.2
Yes	381	64.9	With someone	123	21
No	205	35	Other	38	6.5
			N/A	11	1.9
			<hr/>		
	<i>N</i>	<i>M</i>	<i>SD</i>	Range	
Age	582	30.73	10.26	18-73	
Income	571	102234.68	102487.18	2000-500000	

**Table 18***Latin America Family Root*

Country	N	%
Argentina	5	0.90%
Bolivia	2	0.30%
Brazil	6	1.00%
Chile	2	0.30%
Colombia	16	2.70%
Costa Rica	1	0.20%
Cuba	26	4.40%
Dominican Republic	12	2.00%
Ecuador	6	1.00%
El Salvador	19	3.20%
Guatemala	1	0.20%
Honduras	3	0.50%
Mexico	343	58.40%
Nicaragua	2	0.30%
Panama	3	0.50%
Paraguay	1	0.20%
Puerto Rico	37	6.30%
Peru	10	1.70%
Uruguay	1	0.20%
Venezuela	2	0.30%
Multiple Countries	89	15.20%
<b>Total:</b>	<b>587</b>	<b>100.00%</b>

**Table 19**

*Descriptive and Reliability Statistics for Individual Predictors and Outcome Variables at Time 1 (Pre-election)*

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	Range	Cronbach's $\alpha$	McDonald's $\omega$
Time 1						
Age	582	30.73	10.26	55.00		
SES	587	3.88	1.61	7.00		
Political knowledge	587	6.38	1.48	7.00		
Intent to vote	586	0.84	0.37	1.00		
Internal political efficacy	587	3.24	0.78	3.86	0.84	0.83
External political efficacy	587	2.05	0.72	3.40	0.85	0.85
Self-investment	587	5.53	1.11	5.93	0.94	0.94
Self-definition	587	4.84	1.23	6.00	0.89	0.89
Persuasion	587	5.61	1.34	6.00	0.96	0.96
Social capital - bridge	587	19.90	3.93	21.00	0.76	0.67
Social capital - trust	587	18.90	3.26	19.00	0.75	0.75
Internal group political efficacy	587	3.43	0.70	3.20	0.75	0.77
External group political efficacy	587	2.09	0.73	4.00	0.84	0.84
Power group political efficacy	587	4.23	0.74	4.00	0.85	0.85

**Table 20**

*Descriptive and Reliability Statistics for Individual Predictors and Outcome Variables at Time 2 (Post-election)*

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	Range	Cronbach's $\alpha$	McDonald's $\omega$
Time 2						
Political knowledge	498	6.49	1.29	6.00		
Vote midterm	496	0.72	0.45	1.00		
Internal political efficacy	498	3.35	0.81	4.00	0.85	0.85
External political efficacy	498	2.09	0.73	4.00	0.86	0.85
Self-investment	498	5.50	1.13	6.03	0.94	0.95
Self-definition	498	4.85	1.24	6.00	0.90	0.90
Persuasion	498	5.72	1.35	6.00	0.97	0.97
Internal group political efficacy	498	3.46	0.69	3.40	0.72	0.74
External group political efficacy	498	2.15	0.74	4.00	0.83	0.83
Power group political efficacy	498	4.20	0.74	4.00	0.84	0.84
Political participation	498	2.24	0.64	4.00	0.87	0.88

**Table 21***Fit Indices for Confirmatory Factor Analyses of Ethnic Group Political Efficacy Scale*

Index	One-Factor	Three-Factor
Comparative Fit Index (CFI)	0.231	0.943
Tucker-Lewis Index (TLI)	0.077	0.928
Root mean square error of approximation (RMSEA)	0.247	0.069
RMSEA 90% CI lower bound	0.239	0.060
RMSEA 90% CI upper bound	0.256	0.078
Standardized root mean square residual (SRMR)	0.211	0.050
Goodness of Fit Index (GFI)	0.980	0.997
McDonald Fit Index (MFI)	0.137	0.863

**Table 22***Factor Loadings from Confirmatory Factor Analysis of Ethnic Group Political Efficacy*

Factor	Subscale	b	SE	z	p	95% CI
Factor 1: Internal Ethnic GPE						
	GPE2: Understanding political					
	GPE3: Other minorities	0.50	0.05	11.11	< .001	[0.41, 0.58]
	GPE5: Not sure of ethnicity	0.67	0.04	16.36	< .001	[0.59, 0.75]
	GPE6: Not confident of ethnicity	0.68	0.04	15.95	< .001	[0.59, 0.76]
	GPE8: Too complicated	0.84	0.05	18.54	< .001	[0.75, 0.93]
Factor 2: External Ethnic GPE						
	GPE9: Public officials care					
	GPE10: Only votes of ethnicity	0.65	0.04	17.74	< .001	[0.58, 0.72]
	GPE 11: Politician masters of ethnicity	0.64	0.03	18.77	< .001	[0.57, 0.71]
	GPE12: Lose touch to ethnicity	0.74	0.03	25.33	< .001	[0.68, 0.80]
	GPE13: Don't care about ethnicity	0.76	0.03	23.67	< .001	[0.70, 0.83]
Factor 3: Power Ethnic GPE						
	GPE14: Enough ethnic vote	0.73	0.03	25.74	< .001	[0.67, 0.78]
	GPE15: Make a difference	0.70	0.03	25.84	< .001	[0.65, 0.75]
	GPE16: Pull together as minorities	0.62	0.04	17.41	< .001	[0.55, 0.68]



**Table 23***Study 2, Time One Intercorrelations with Group Political Efficacy*

	Internal GPE	Power GPE	External GPE
Internal Efficacy	.266**	.199**	-.124**
External Efficacy	-.033	-.109**	.781**
Political Knowledge	.180**	.198**	-.132**
Self-Investment (In-Group)	.184**	.280**	-.044
Self-Definition (In-Group)	.045	.129**	.164
Persuasion	.115**	.227**	-.042
Acculturative Stress	-.165**	.085*	-.066
SC - Bridge	.186*	.157**	-.043
SC - Trust	.141**	.087*	.224**
SC - Bond	.092*	.188*	-.119**

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Table 24***Study 2, Time Two Intercorrelations with Group Political Efficacy*

	Internal GPE	Power GPE	External GPE
Internal Efficacy	.292**	.188**	-.028
External Efficacy	-.028	-.089*	.775**
Political Knowledge	.122**	.232**	-.101*
Self-Investment (In-Group)	.185**	.296**	-.036
Self-Definition (In-Group)	.067	.115*	.106*
Persuasion	.128**	.304**	-.031
Political Participation	.089*	.188**	0.043

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Table 25***Multivariate Regression with the Three Outcomes of Ethnic GPE at Time 1*

Outcome	Predictor	<i>b</i>	<i>SE</i>	<i>z</i>	<i>p</i>
Internal GPE T1					
	Self-Investment	0.11	0.04	2.88	0.004
	Self-Definition	-0.06	0.03	-1.92	0.055
	Social Persuasion	0.00	0.02	0.00	0.998
	Acculturative Stress	-0.01	0.00	-4.40	0.000
	Political Knowledge	0.06	0.02	2.75	0.006
	Internal Political Efficacy	0.15	0.05	3.09	0.002
	External Political Efficacy	-0.05	0.05	-1.00	0.317
	Attention to Politics	-0.03	0.05	-0.52	0.605
	SC Bridge	0.04	0.03	1.62	0.106
	SC Trust	0.06	0.04	1.73	0.084
	SC Bonding	0.04	0.03	1.45	0.146
External GPE T1					
	Self-Investment	-0.04	0.02	-1.83	0.067
	Self-Definition	-0.01	0.02	-0.25	0.803
	Social Persuasion	-0.01	0.02	-0.69	0.489
	Acculturative Stress	0.00	0.00	-1.66	0.098
	Political Knowledge	0.01	0.01	0.55	0.580
	Internal Political Efficacy	-0.08	0.03	-2.44	0.015
	External Political Efficacy	0.80	0.03	26.45	0.000
	Attention to Politics	-0.05	0.04	-1.36	0.173
	SC Bridge	0.05	0.02	2.76	0.006
	SC Trust	0.01	0.02	0.36	0.723
	SC Bonding	-0.04	0.02	-2.12	0.034
Power GPE T1					
	Self-Investment	0.14	0.03	4.16	0.000
	Self-Definition	-0.02	0.03	-0.65	0.514
	Social Persuasion	0.06	0.02	2.55	0.011
	Acculturative Stress	0.00	0.00	1.43	0.152
	Political Knowledge	0.06	0.02	2.87	0.004
	Internal Political Efficacy	0.08	0.05	1.67	0.094
	External Political Efficacy	-0.10	0.04	-2.28	0.023
	Attention to Politics	0.09	0.05	1.91	0.056
	SC Bridge	-0.02	0.03	-0.64	0.519
	SC Trust	0.04	0.04	1.15	0.250
	SC Bonding	0.08	0.03	2.80	0.005

**Table 26***Hierarchical Logistic Regression Results for Intent to Vote*

Variable	B	SE B	Wald	Sig.	Exp(B)	95% CI Exp(B)	
						LL	UL
<b>Step 1</b>							
Constant	-0.27	0.46	0.34	0.560	0.77		
SES	0.24	0.08	9.27	0.002	1.27	1.09	1.48
Age	0.03	0.01	3.83	0.050	1.03	1.00	1.06
Gender	0.43	0.24	3.29	0.070	1.54	0.97	2.44
<b>Step 2</b>							
Constant	-2.01	0.73	7.67	0.006	0.13		
SES	0.19	0.08	5.73	0.017	1.21	1.04	1.42
Age	0.02	0.01	1.36	0.243	1.01	0.99	1.04
Gender	0.66	0.25	7.02	0.008	1.93	1.19	3.15
Internal political efficacy	0.78	0.17	21.24	<.001	2.18	1.57	3.04
External political efficacy	-0.13	0.17	0.66	0.416	0.87	0.63	1.21
<b>Step 3</b>							
Constant	-2.94	1.09	7.28	0.007	0.05		
SES	0.20	0.08	6.01	0.014	1.22	1.04	1.43
Age	0.02	0.01	1.35	0.246	1.02	0.99	1.05
Gender	0.61	0.25	5.68	0.020	1.83	1.11	3.01
Internal political efficacy	0.69	0.18	15.43	<.001	2.00	1.42	2.83
External political efficacy	0.26	0.27	0.92	0.336	1.29	0.77	2.17
Internal GPE	-0.90	0.19	0.19	0.660	0.92	0.63	1.34
External GPE	-0.43	0.26	2.74	0.098	0.65	0.39	1.08
Power GPE	0.39	0.16	5.67	0.017	1.47	1.07	2.02

**Table 27***Hierarchical Logistic Regression Results for Voting*

Variable	B	SE B	Wald	Sig.	Exp(B)	95% CI		
						LL	UL	
<b>Step 1</b>								
Constant	-1.03	0.42	5.99	0.010	0.36			
SES	0.26	0.07	12.91	<.001	1.29	1.12	1.48	
Age	0.03	0.01	6.69	0.010	1.03	1.01	1.06	
Gender	0.17	0.21	0.58	0.450	1.18	0.77	1.80	
<b>Step 2</b>								
Constant	-2.51	0.68	13.61	<.001	0.08			
SES	0.22	0.07	9.44	0.002	1.25	1.08	1.44	
Age	0.02	0.01	3.19	0.074	1.02	1.00	1.05	
Gender	0.35	0.23	2.36	0.125	1.41	0.91	2.20	
Internal political efficacy	0.66	0.15	19.15	<.001	1.94	1.44	2.62	
External political efficacy	-0.15	0.15	0.95	0.330	0.86	0.64	1.16	
<b>Step 3</b>								
Constant	-3.66	1.05	12.20	<.001	0.03			
SES	0.23	0.07	9.73	0.002	1.26	1.09	1.46	
Age	0.02	0.01	3.15	0.076	1.02	1.00	1.05	
Gender	0.32	0.23	1.88	0.171	1.37	0.87	2.15	
Internal political efficacy	0.62	0.16	15.08	<.001	1.85	1.36	2.53	
External political efficacy	-0.10	0.26	0.15	0.696	0.90	0.54	1.50	
Internal GPE	-0.14	0.17	0.61	0.435	0.87	0.62	1.23	
External GPE	0.01	0.26	0.00	0.968	1.01	0.61	1.67	
Power GPE	0.39	0.16	5.76	0.016	1.48	1.07	2.04	

**Table 28***Hierarchical Logistic Regression Results for Political Participation*

Variable	B	95% CI for B		SE B	Beta	R <sup>2</sup>	Change R <sup>2</sup>
		LL	UL				
Step 1						0.03	.03**
Constant	1.87***	1.66	2.09	0.11			
SES	0.04*	0.01	0.08	0.02	0.08		
Age	0.00	0.00	0.01	0.00	0.08		
Gender	0.07	-0.05	0.18	0.06	0.05		
Step 2						0.15	0.13***
Constant	1.02***	0.70	1.34	0.16			
SES	0.03	-0.01	0.06	0.02	0.07		
Age	0.00	-0.01	0.01	0.00	0.01		
Gender	0.14*	0.03	0.25	0.06	0.11		
Internal political efficacy	0.30***	0.23	0.37	0.04	0.38		
External political efficacy	0.03	-0.05	0.10	0.04	0.03		
Step 3						0.16	0.01
Constant	0.58*	0.10	1.07	0.25			
SES	0.03	-0.01	0.06	0.02	0.07		
Age	0.00	-0.01	0.01	0.00	-0.01		
Gender	0.12*	0.01	0.23	0.06	0.10		
Internal political efficacy	0.28***	0.20	0.35	0.04	0.34		
External political efficacy	0.01	-0.11	0.14	0.06	0.01		
Internal GPE	0.05	-0.03	0.13	0.04	0.06		
External GPE	0.04	-0.09	0.16	0.06	0.04		
Power GPE	0.08	-0.01	0.15	0.04	0.09		

\*\*. Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

**Table 29***Direct Effects of Ethnic GPE on Political Participation and Voting as part of SEM Model*

Outcome	Predictor	<i>b</i>	<i>SE</i>	<i>z</i>	<i>p</i>	95% <i>CI</i>
Voting in Midterm						
	External GPE	1.865×10 <sup>-5</sup>	0.04	4.928×10 <sup>-4</sup>	1.000	[-0.07, 0.07]
	Power GPE	0.05	0.03	1.92	0.055	[-9.582×10 <sup>-4</sup> , 0.09]
	Internal GPE	-0.02	0.02	-0.73	0.465	[-0.06, 0.03]
Political Participation T2						
	External GPE	0.08	0.06	1.42	0.155	[-0.03, 0.19]
	Power GPE	0.04	0.04	1.12	0.261	[-0.03, 0.12]
	Internal GPE	0.03	0.04	0.94	0.350	[-0.04, 0.10]

**Table 30**

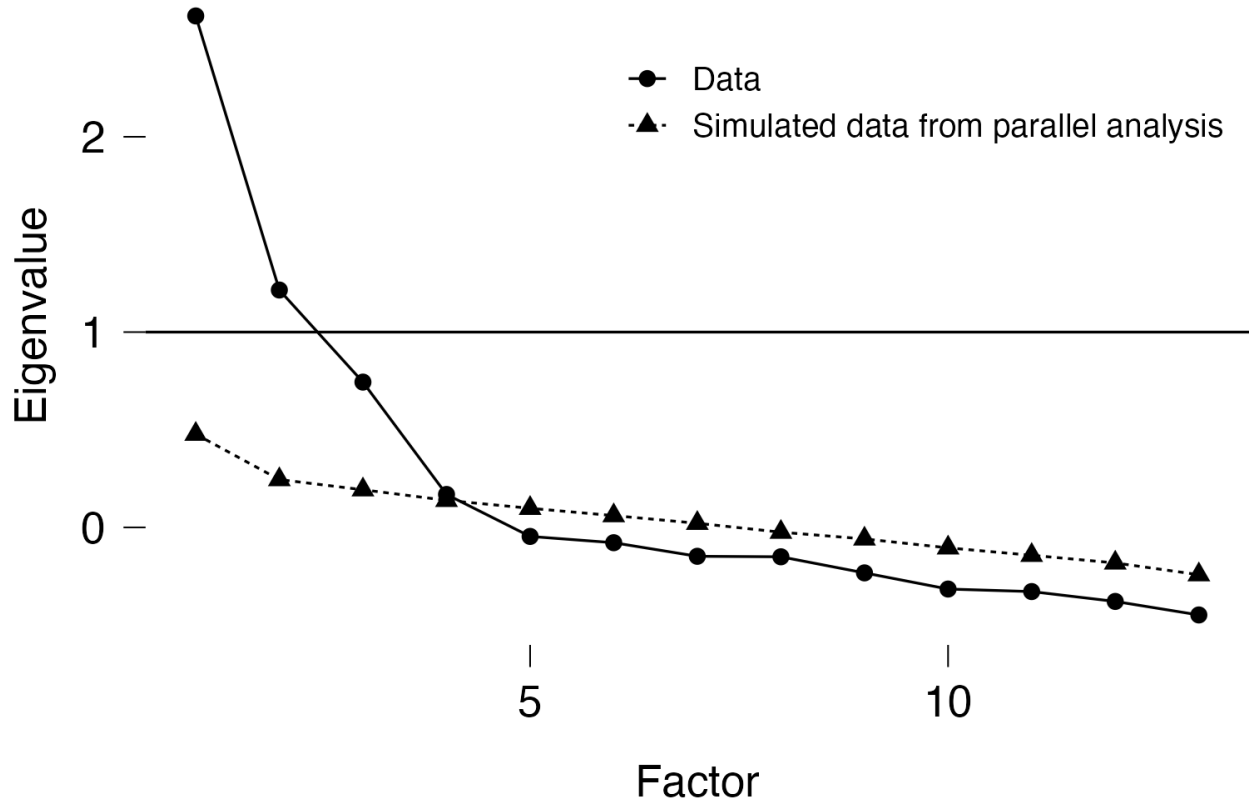
*Indirect Effects of Ethnic GPE on Political Participation and Voting via Vote Action as part of SEM Model*

Outcome	Predictor	<i>b</i>	<i>SE</i>	<i>z</i>	<i>p</i>	95% <i>CI</i>
Voting in Midterm						
	External GPE → Vote Action	5.672×10 <sup>-4</sup>	0.02	0.03	0.980	[0.04, 0.05]
	Power GPE → Vote Action	0.04	0.02	2.77	0.006	[0.01, 0.07]
	Internal GPE → Vote Action	-0.02	0.01	-1.27	0.204	[-0.05, 0.01]
Political Participation T2						
	External GPE → Vote Action	6.318×10 <sup>-4</sup>	0.03	0.03	0.980	[-0.05, 0.05]
	Power GPE → Vote Action	0.05	0.02	2.72	0.007	[0.01, 0.08]
	Internal GPE → Vote Action	-0.02	0.02	-1.26	0.206	[-0.05, 0.01]



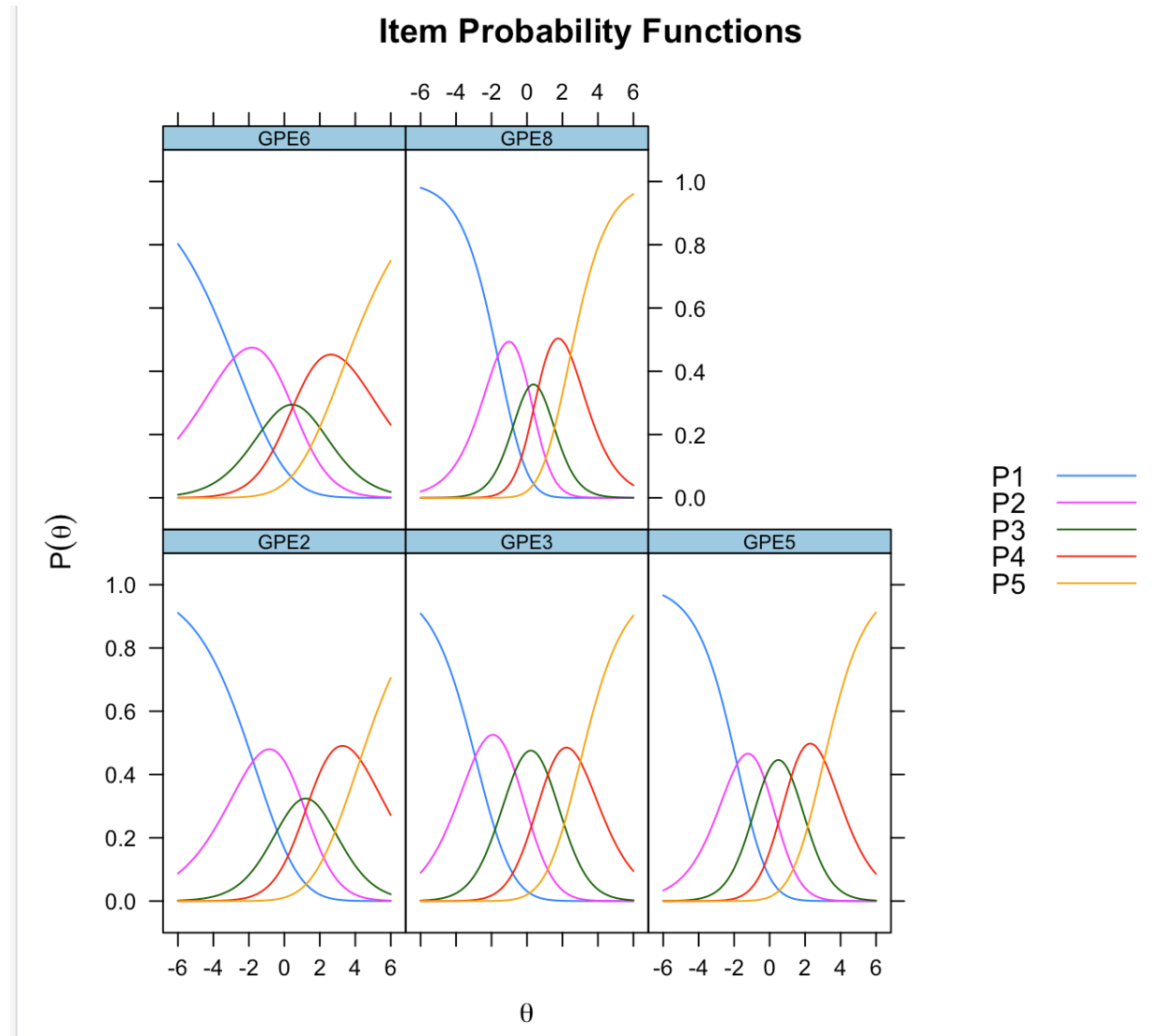
**Figure 1**

*Scree Plot for Parallel Analysis EFA*



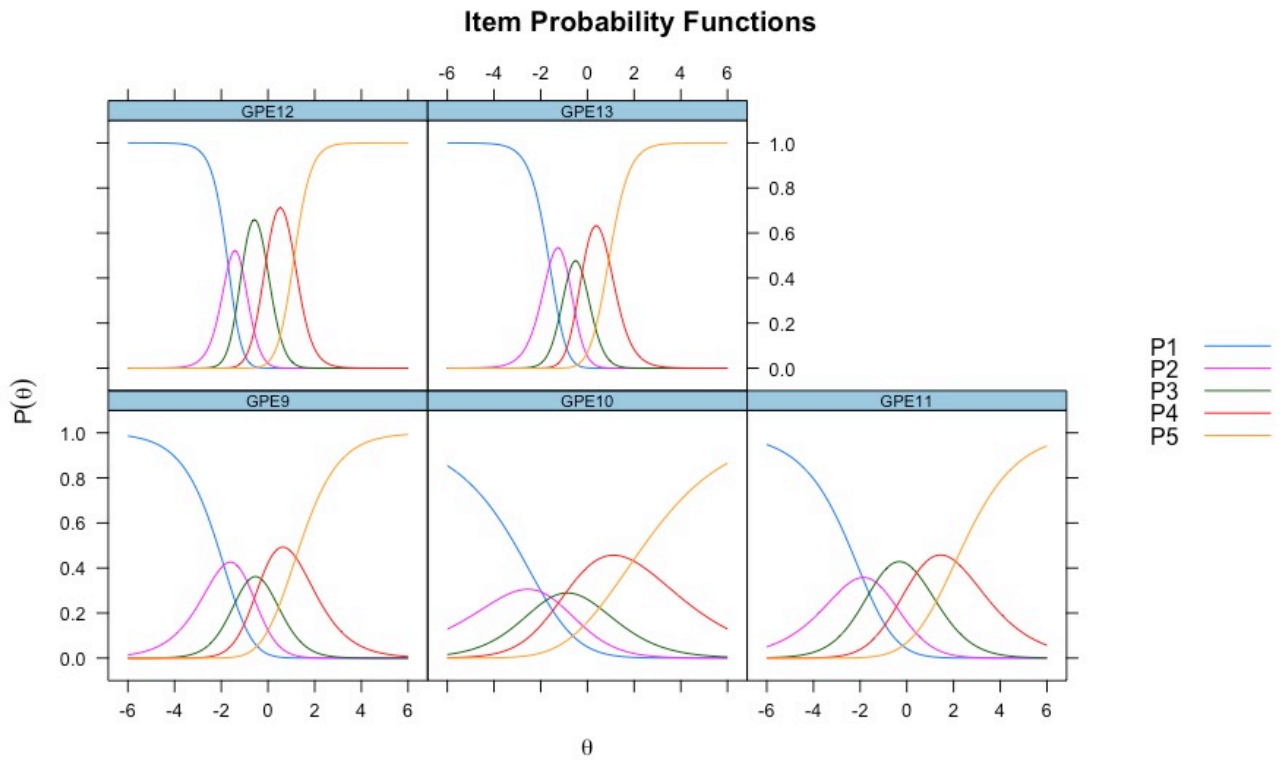
**Figure 2.**

*Item Probability Functions for Internal GPE Items*



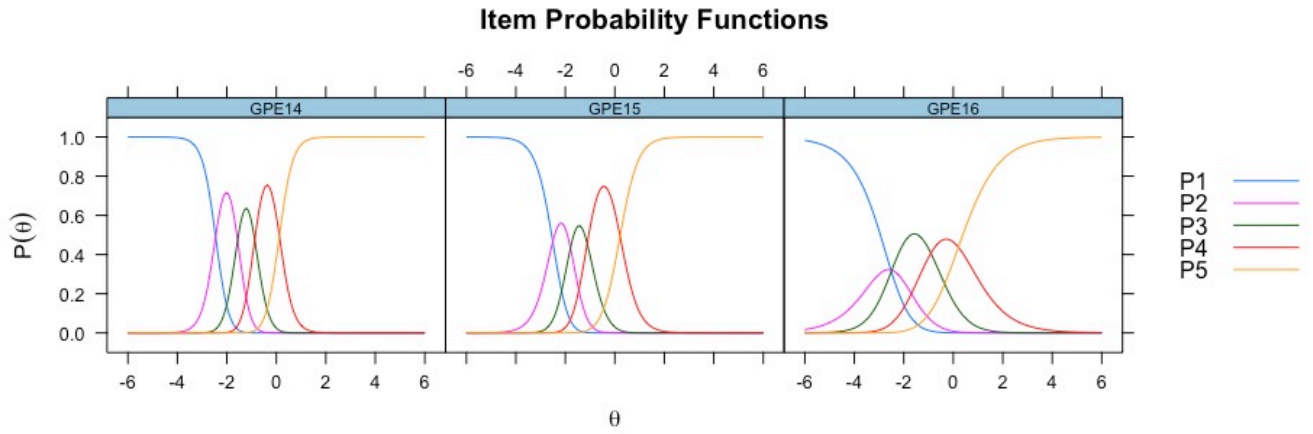
**Figure 3.**

*Item Probability Functions for External GPE Items*



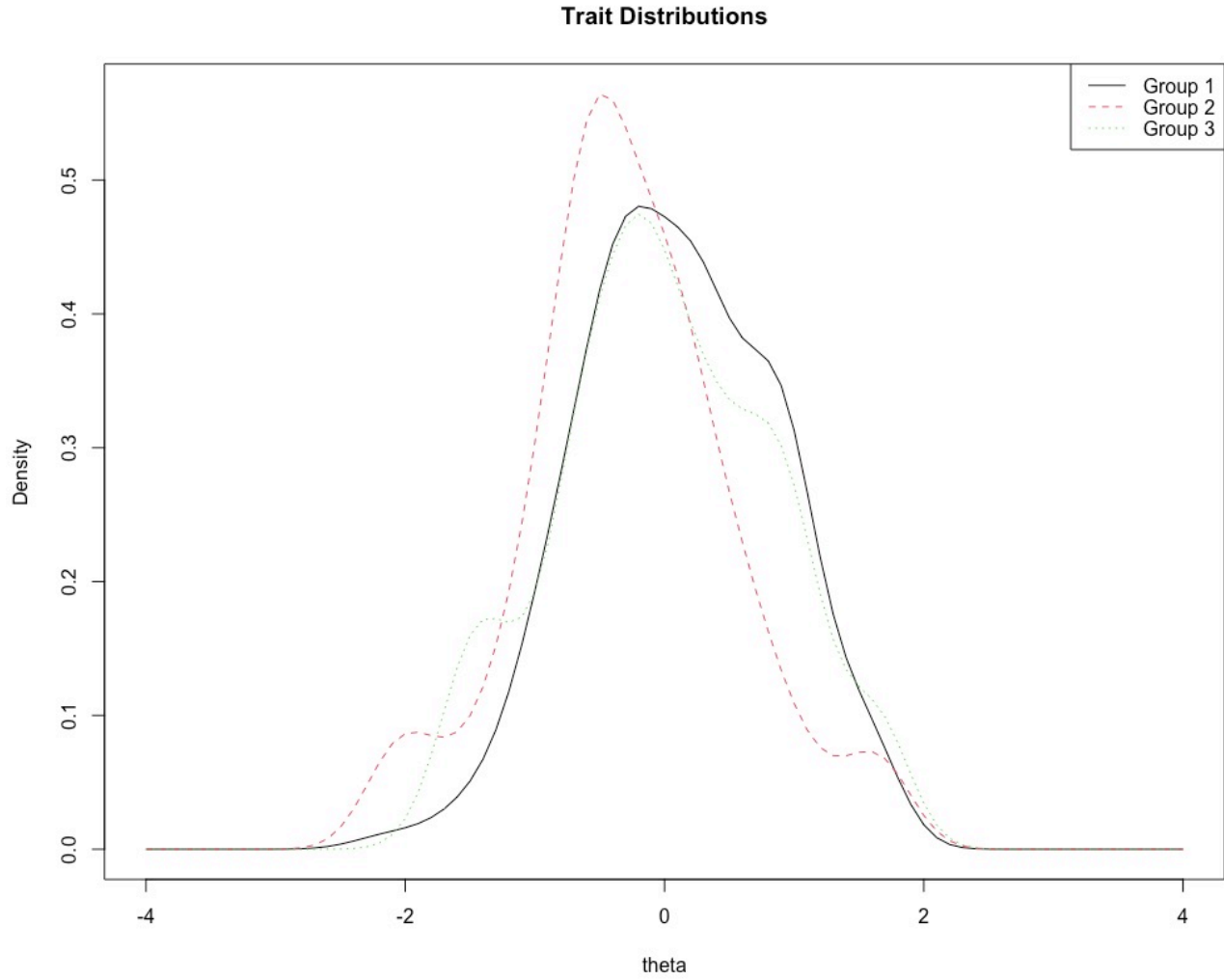
**Figure 4.**

*Item Probability Functions for Power GPE Items*



**Figure 5**

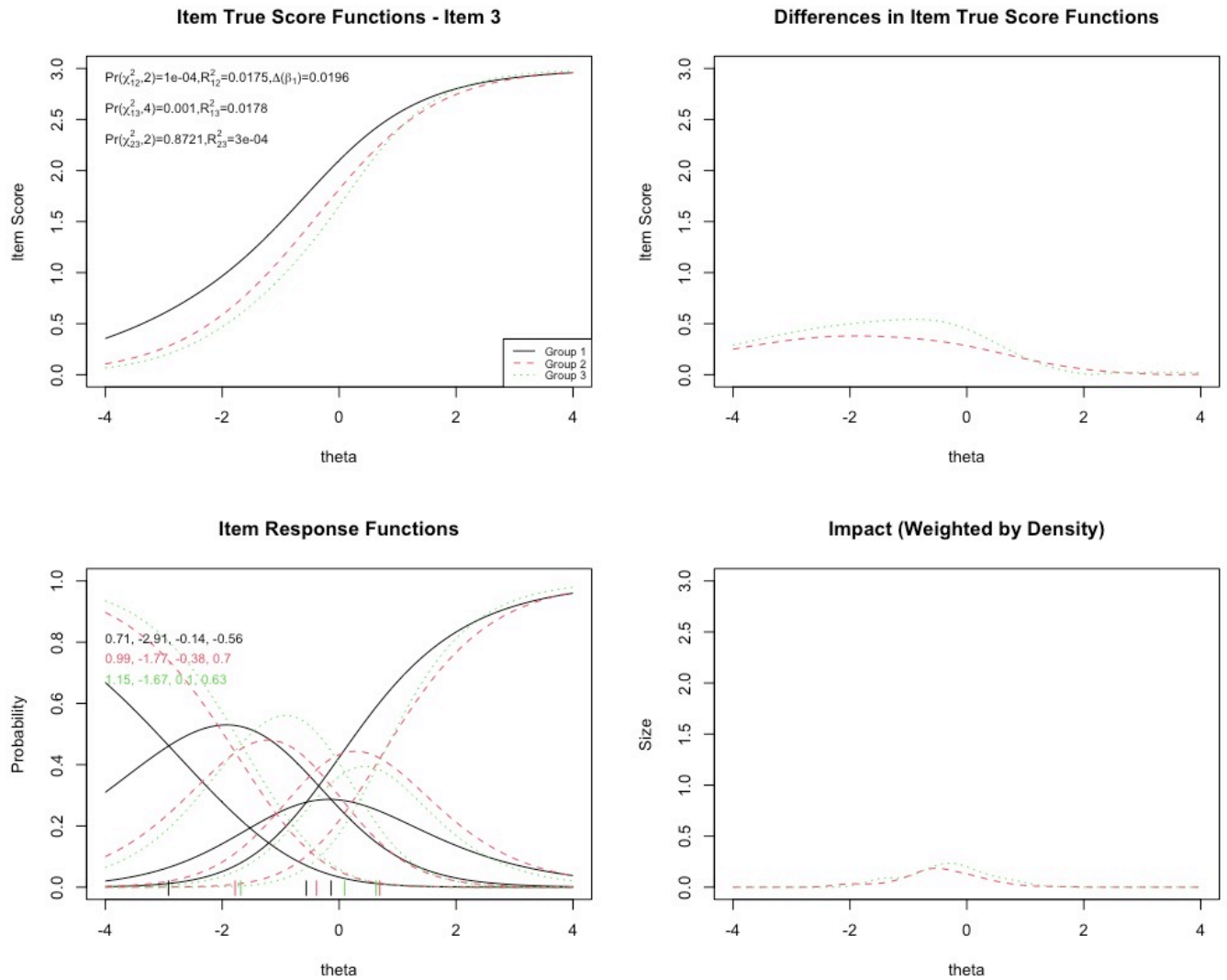
*Trait Distribution of GPE5 and GPE6 by Racial and Ethnic Group*



Note. Group 1 – Latino/a/x; Group 2 – non-Latino Black; Group 3 - non-Latino Asian.

**Figure 6.**

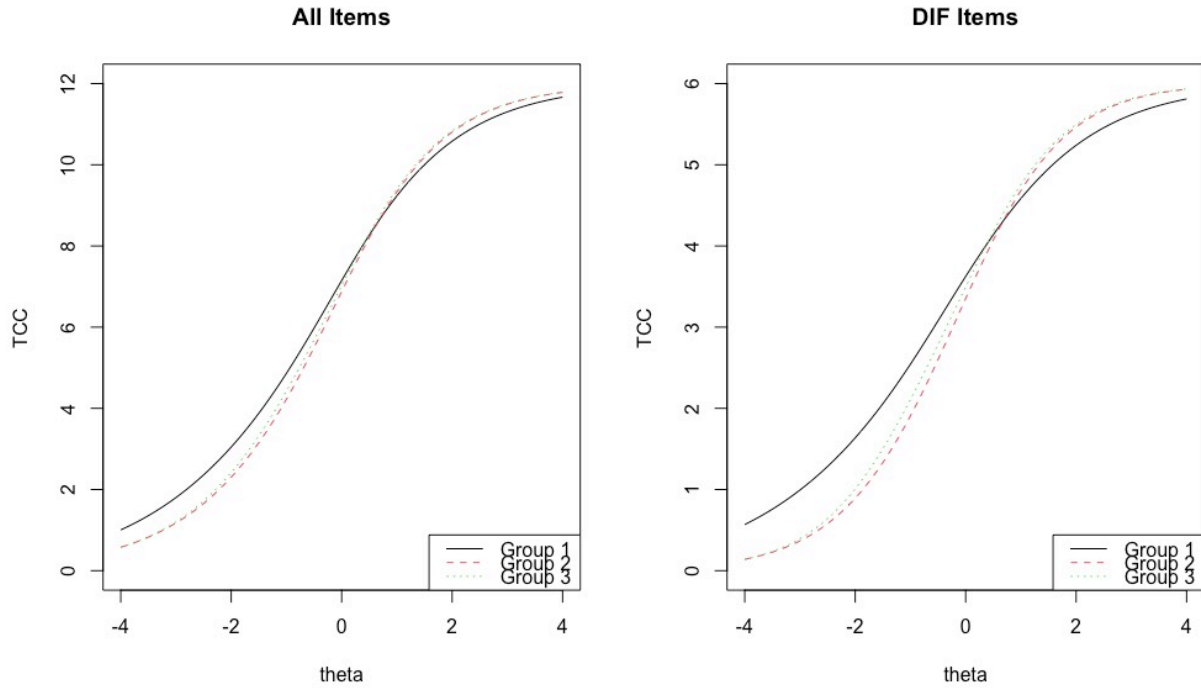
*Graphical Display of GPE6 by Ethnic Group*



Note. Group 1 – Latino/a/x; Group 2 – Black; Group 3 - Asian. Figures should non-uniform DIF for marginalized ethnic and racial groups.

**Figure 7.**

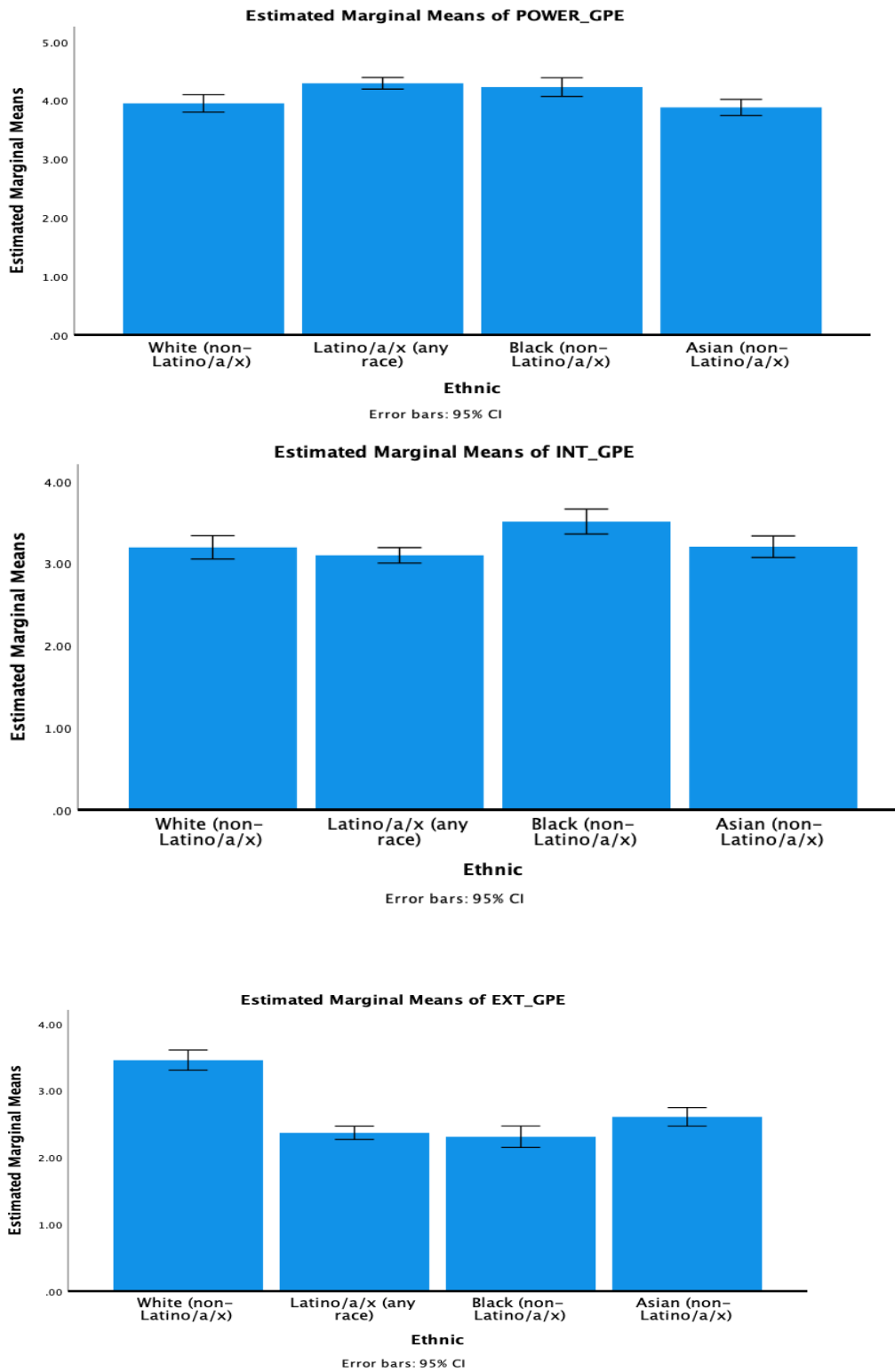
*Graphical Display of GPE5 and GPE6 versus Composite Scale by Ethnic Group*



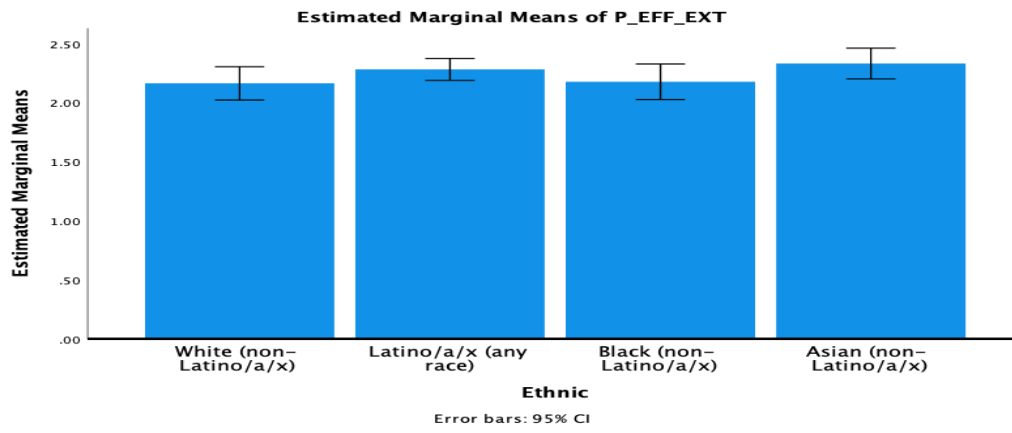
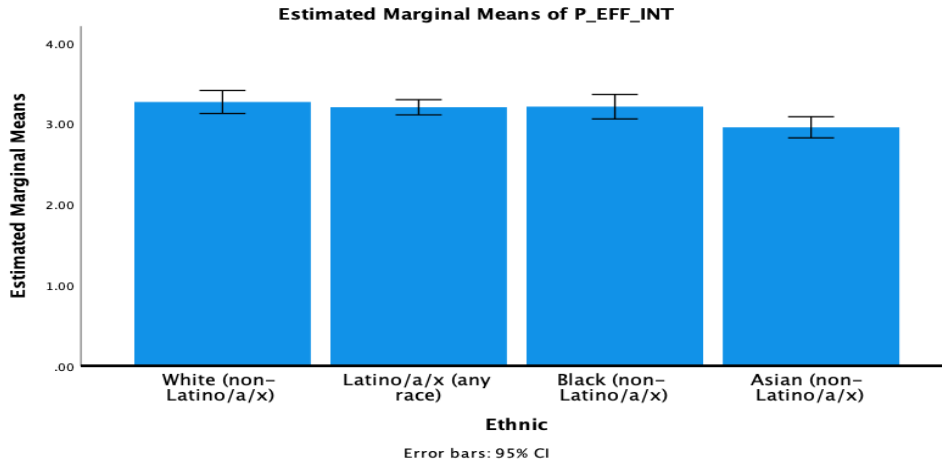
Note. Group 1 – Latino/a/x; Group 2 – Black; Group 3 - Asian.

**Figure 8.**

*Results from ANOVAs, Ethnicity on Individual PE and Ethnic GPE.*

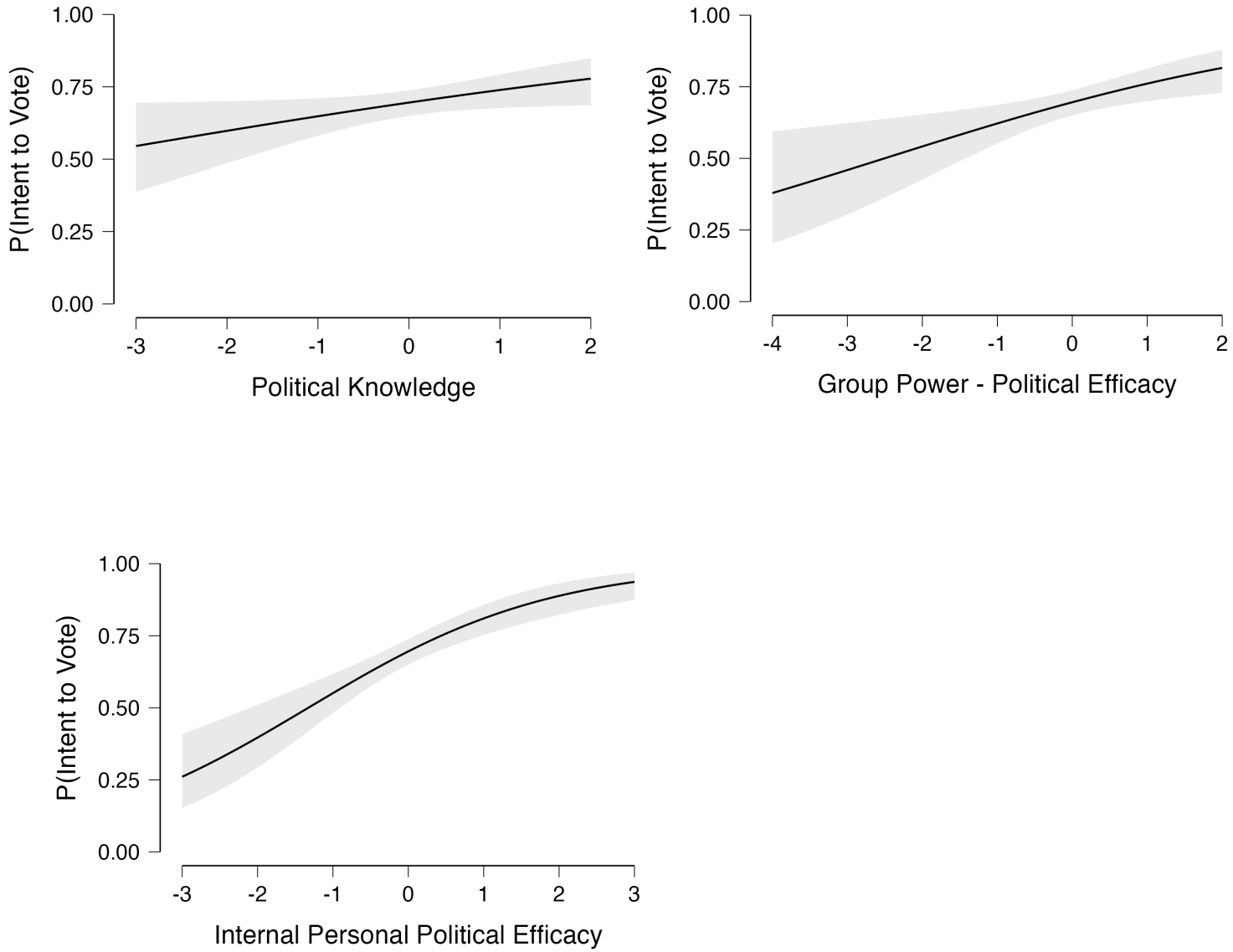






**Figure 9**

*Results from Logistic Regressions, Pol. Knowledge, Group GPE, and Internal on Intent to Vote*



## Appendix A

### **Internal and external group political efficacy (modified from Craig et al, 1990)**

Internal: 1 (strongly disagree) to 5 (strongly agree)

1. People in the [ethnic] group are well-qualified to participate in politics. (agree)
2. People in the [ethnicity] community have a pretty good understanding of the important political issues facing our country. (agree)
3. Other minorities/ethnicities seem to have an easier time understanding complicated issues than people in the Latino community. (disagree)
4. A [ethnicity] person could do as good a job in public office as most other people. (agree)
5. I often don't feel sure of the [ethnicity] community when talking with other people about politics and government. (disagree)
6. People in the [ethnicity] community often don't feel confident when talking about politics and government with other people. (disagree)
7. I think the [ethnicity] community is as well-informed about politics and government as most people. (agree)
8. Sometimes politics and government seem so complicated that the [ethnicity] community can't really understand what's going on. (disagree)

External: 1 (strongly disagree) to 5 (strongly agree)

9. Most public officials are truly interested in what the [ethnicity] community thinks. (agree)
10. Candidates for office are only interested in the [ethnicity] community's votes, not in their opinions. (disagree)
11. Politicians are supposed to be the servants of the [ethnicity] community, but too many of them think they are the masters. (disagree)
12. Generally speaking, those we elect to public office lose touch with the [ethnicity] community pretty quickly. (disagree)
13. I don't think public officials care much what the [ethnicity] community thinks. (disagree)

Modified from Mangum (2003)

14. If enough [ethnicity] vote, they can make a difference in who gets elected
15. People from the [ethnicity] community can make a difference in who gets elected
16. If Latino people, other minorities, the poor, and women pulled together, they could decide how this country is run.

### **Internal and external political efficacy (Craig et al, 1990)**

Internal: 1 (strongly disagree) to 5 (strongly agree)

1. I consider myself well-qualified to participate in politics. (agree)
2. I feel that I have a pretty good understanding of the important political issues facing our country. (agree)

3. Other people seem to have an easier time understanding complicated issues than I do. (disagree)
4. I feel that I could do as good a job in public office as most other people. (agree)
5. I often don't feel sure of myself when talking with other people about politics and government. (disagree)
6. I think that I am as well-informed about politics and government as most people. (agree)
7. Sometimes politics and government seem so complicated that a person like me can't really understand what's going on. (disagree)

External: 1 (strongly disagree) to 5 (strongly agree)

1. Most public officials are truly interested in what the people think. (agree)
2. Candidates for office are only interested in people's votes, not in their opinions. (disagree)
3. Politicians are supposed to be the servants of the people, but too many of them think they are the masters. (disagree)
4. Generally speaking, those we elect to public office lose touch with the people pretty quickly. (disagree)
5. I don't think public officials care much what people like me think. (disagree)

disagree = reverse

**(Group-Level) Self-Investment (Leach et al., 2008)**

7-point Likert scale: 1 (strongly disagree) to 7 (strongly agree)

Solidarity

1. I feel a bond with [In-group]. (Adapted from Cameron, 2004; Doosje et al., 1998.)
2. I feel solidarity with [In-group].
3. I feel committed to [In-group]. (Doosje et al., 1995)

Satisfaction

4. I am glad to be [In-group]. (Adapted from Cameron, 2004; Doosje et al., 1998; Luhtanen & Crocker, 1992.)
5. I think that [In-group] have a lot to be proud of. (Ellemers, Kortekaas, & Ouwerkerk, 1999.)
6. It is pleasant to be [In-group]. (Doosje et al., 1998.)
7. Being [In-group] gives me a good feeling. (Adapted from Cameron, 2004; Luhtanen & Crocker, 1992.)

Centrality

8. I often think about the fact that I am [In-group]. (Adapted from Cameron, 2004.)
9. The fact that I am [In-group] is an important part of my identity. (Adapted from Luhtanen & Crocker, 1992.)

10. Being [In-group] is an important part of how I see myself. (Adapted from Doosje et al., 1998; Ellemers, Kortekaas, & Ouwerkerk, 1999; Luhtanen & Crocker, 1992.)

### **(Group-Level) Self-Definition**

#### Individual Self-Stereotyping

1. I have a lot in common with the average [In-group] person. (Adapted from Spears et al., 1997.)
2. I am similar to the average [In-group] person. (Adapted from Doosje et al., 1995; Spears et al., 1997.)

#### In-Group Homogeneity

3. [In-group] people have a lot in common with each other. (Adapted from Spears et al., 1997.)
4. [In-group] people are very similar to each other. (Adapted from Ellemers, Kortekaas, & Ouwerkerk, 1999; Spears et al., 1997.)

**Social motivation/social persuasion items (Glasford, 2008).** The items were rated on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree).

1. Most people who are important to me think I should vote
2. Most people who are important to me think I should vote in the 2022 midterm election
3. My friends and family think I should vote in the 2022 midterm election

**Political Participation** (Gopal & Verma, 2017) 18-item scale rated on 5-point Likert ranging from 1 = Never to 5 = Always

1. I work for a political party or candidates during elections
2. I attend political meetings
3. I am/was a member of a political party
4. I always vote in elections
5. I attend political rallies
6. I discuss about Politics with my friends, relatives and Colleagues
7. I participate actively to solve the community problems
8. I take part in strikes to influence government.
9. I file petitions against the government.
10. I refuse to pay government rent and taxes to influence government decisions.
11. I take part in blockades to influence government
12. I take part in demonstration to influence government.
13. I take part in boycotts to influence government.
14. I use electronic media (TV/Radio) to know about politics.
15. I search on internet about politics.
16. I read about politics in Print Media (Newspapers/Magazines etc.)

17. I try to influence my friends, relatives and colleagues on formation of political opinion
18. I try to convince my friends, relatives and colleagues to vote.

**Question Wording for a Recommended Five-Item Knowledge Index (Delli Carpini & Keeter, 1993)**

Recommended introduction: Last, here are a few questions about the government in Washington. Many people don't know the answers to these questions, so if there are some you don't know just tell me and we'll go on.

1. Do you happen to know what job or political office is now held by Kamala Harris?
2. Whose responsibility is it to determine if a law is constitutional or not ... is it the president, the Congress, or the **Supreme Court**? (multiple choice)
3. Do you happen to know which party has the majority of members in the House of Representatives in Washington right now? (multiple choice: **democrat**, republican, independent)
4. Would you say that one of the parties is more conservative than the other at the national level? (multiple choice: democrat, **republican**, independent)
5. How much of a majority is required for the U.S. Senate and House to override a presidential veto? (one-half, three-fifths, **two-thirds**, three quarters [multiple choice from Prior, 2005])

**Additional political knowledge:**

Did you know that in certain jurisdictions with high Latino/Hispanic populations, a person can request a ballot in Spanish when voting in political elections?

- Yes, I did know
- No, I did not know
- I'm not sure

Did you know that in certain jurisdictions with high immigrant populations, a person can request a translator to the ballot booth when voting in political elections?

- Yes, I did know
- No, I did not know
- I'm not sure

**Questions about voting intentions and environmental attitudes:**

1. Have you voted in a US Presidential election before? yes, no, rather not say
2. Who did you vote for in the 2020 US presidential election?
  - a) Joe Biden
  - b) Donald Trump
  - c) Other candidate
  - d) I did not vote
  - e) Rather not say or N/A
3. Have you voted in a primary election before? yes, no, rather not say

4. Have you voted in a midterm election before? yes, no, rather not say
5. Did you vote on the 2022 primary election this year? yes, no, rather not say
6. Do you plan on voting on the 2022 midterm election later this year? yes, no, rather not say
7. Generally speaking, how concerned are you about environmental issues?  
1 (Not at all concerned) to 5 (Very concerned)
8. Do you believe in climate change?  
Yes, No, Don't know, Not applicable / rather not say
9. In November 2016, the United States held a presidential election. If that election were to take place today, I would consider myself...
  - a. Not at all likely to vote
  - b. Unlikely to vote
  - c. Likely to vote
  - d. Very likely to vote
10. In November 2016, the United States held a presidential election. If that election were to take place today, I would most likely vote for...
  - a. Hillary Clinton
  - b. Donald Trump
  - c. Undecided
  - d. Other Candidate
  - e. I would not vote
11. Are you registered to vote for the election in November?
  - a. Not registered
  - b. Registered
  - c. Don't Know
12. If you are registered to vote, what is your party of registration?
  - a. Democrat
  - b. Republican
  - c. Independent
  - d. Other
  - e. Not sure
  - f. I am not registered
13. Do you intend to vote in the election this November?
  - a. Yes
  - b. No
14. If you are voting in the 2022 midterm election, who do you intend to vote for?
  - a. Beto O'Rourke (democrat)
  - b. Greg Abbott (republican)
  - c. Delilah Barrios (green)
  - d. Mark Tippetts (libertarian)
  - e. Other
  - f. I do not plan on voting

15. (Pro-choice)

When it comes to others having the right to terminate their pregnancy, are you Pro Life or Pro Choice?

- a. Pro-Life
- b. Pro-choice
- c. NA/Rather not say

## 16. Post-election: Did you vote in the 2022 midterm election?

- a. Yes
- b. No
- c. Rather not say

## 17. Post-election: If you voted in the midterm, did you go vote alone or with someone else?

- a. I went alone
- b. I went with someone else (friend/family/partner)
- c. Other
- d. N/A

## 18. Post-election: If you voted in the midterm, who did you vote for mostly?

- a. Democrat
- b. Republican
- c. Other
- d. I don't know

**News Consumption Question**

How do you consume your news? Choose all that apply:

- Newspaper
- Social media apps (facebook, twitter, youtube, etc.)
- Messaging apps (whatsapp, telegram, parler, etc.)
- Podcasts
- News channels (local news, Fox News, CNN, etc.)
- Word of mouth (family, friends, colleagues)
- Other

**SAFE- ACCULTURATIVE STRESS (MENA ET AL, 1987)**

1= NOT STRESSFUL TO 5= EXTREMELY STRESSFUL

1. I feel uncomfortable when others make jokes about or put down people of my ethnic background.
2. I have more barriers to overcome than most people.
3. It bothers me that family members I am close to do not understand my new values.
4. Close family members and I have conflicting expectations about my future.
5. It is hard to express to my friends how I really feel.
6. My family does not want me to move away but I would like to.
7. It bothers me to think that so many people use drugs.



8. It bothers me that I cannot be with my family.
9. In looking for a good job, I sometimes feel that my ethnicity is a limitation.
10. I don't have any close friends.
11. Many people have stereotypes about my culture or ethnic group and treat me as if they are true.
12. I don't feel at home.
13. People think I am unsociable when in fact I have trouble communicating in English.
14. I often feel that people actively try to stop me from advancing.
15. It bothers me when people pressure me to assimilate.
16. I often feel ignored by people who are supposed to assist me.
17. Because I am different I do not get enough credit for the work I do.
18. It bothers me that I have an accent.
19. Loosening the ties with my country is difficult.
20. I often think about my cultural background
21. Because of my ethnic background, I feel that others often exclude me from participating in their activities.
22. It is difficult for me to "show off" my family.
23. People look down upon me if I practice customs of my culture.
24. I have trouble understanding others when they speak.

### **Demographic questions**

Please enter your Prolific ID:

(Minor\_Status)

Are you 18 years or older?

Yes

No

Currently, can you legally vote in the United States?

Yes

No

(age)

How old are you (in years)? Choices will be from 18 – 100 years

(gender)

What sex were you assigned at birth, such as on an original birth certificate?

Male

Female

How do you describe yourself?

Male

Female  
Trans Male/Trans Man  
Trans Female/Trans Woman  
Genderqueer/Gender Non-Conforming  
Different Identity

(Latino)

What is your Latino/a/x ethnic heritage (check all that apply)?

Argentina  
Bolivia  
Brazil  
Chile  
Colombia  
Costa Rica  
Cuba  
Dominican Republic  
Ecuador  
El Salvador  
Guatemala  
Honduras  
Mexico  
Nicaragua  
Panama  
Paraguay  
Puerto Rico  
Peru  
Uruguay  
Venezuela  
Other \_\_\_\_\_

(race)

What is your racial background?

White  
Black  
Asian  
Native American/ Indigenous  
Other/Multiracial/Mestizo

(Citizen)

I am an American citizen.

Yes  
No

(biracial)

Do you consider yourself to be biracial/multi-ethnic?

Yes

No

(USborn)

I was born in the United States.

Yes

No

(immigrant)

Do you consider yourself to be an immigrant?

Yes

No

(parent\_immigrant)

Are your parents immigrants?

Yes

No

(language)

What is the first language you learned to speak?

English

Spanish

Other

What language do you feel more comfortable speaking?

English

Spanish

Both equally

Other

What is the main language spoken in your household?

English

Spanish

Both equally

Other

(political orientation)

Overall, I would consider myself as...

Very conservative

Somewhat conservative

Conservative

Neither liberal nor conservative

Liberal  
Somewhat liberal  
Very liberal

(income)

What is your current household annual income in dollars (sliding scale) – 0 to 500,000+

How many people live in your current residence: 1 – 10+

Have you been employed in the last 6 months?

No

Yes

(education)

Which of the following best describes your level of education?

Less than high school

High school or equivalent diploma, some college, or associate's degree

Bachelor's degree

Master's, professional, or doctoral degree

Unknown

Other Barriers:

Were you sick during the days you could vote?

Yes

No

Appendix B

Range: 0 - 7

Table 2-11. SES index options for NCVS

Measures	Index 1	Index 2	Index 3
Education	<ul style="list-style-type: none"> <li>▪ 0: Less than high school</li> <li>▪ 1: High school, some college, associate's degree</li> <li>▪ 2: Bachelor's degree</li> <li>▪ 3: Master's, professional, doctorate degree</li> </ul> Possible range: 0-3	<ul style="list-style-type: none"> <li>▪ 0: Less than high school</li> <li>▪ 1: High school, some college, associate's degree</li> <li>▪ 2: Bachelor's degree</li> <li>▪ 3: Master's, professional, doctorate degree</li> </ul> Possible range: 0-3	<ul style="list-style-type: none"> <li>▪ 0: Less than high school</li> <li>▪ 1: High school, some college, associate's degree</li> <li>▪ 2: Bachelor's degree</li> <li>▪ 3: Master's, professional, doctorate degree</li> </ul> Possible range: 0-3
Income (percentage of Federal poverty level)	<ul style="list-style-type: none"> <li>▪ 0: 100% or less</li> <li>▪ 1: 101%-200%</li> <li>▪ 2: 201%-400%</li> <li>▪ 3: 401% or greater</li> </ul> Possible range: 0-3	<ul style="list-style-type: none"> <li>▪ 0: 100% or less</li> <li>▪ 1: 101%-200%</li> <li>▪ 2: 201%-400%</li> <li>▪ 3: 401% or greater</li> </ul> Possible range: 0-3	<ul style="list-style-type: none"> <li>▪ 0: 100% or less</li> <li>▪ 1: 101%-200%</li> <li>▪ 2: 201%-400%</li> <li>▪ 3: 401% or greater</li> </ul> Possible range: 0-3
Employment	<ul style="list-style-type: none"> <li>▪ 0: Unemployed past 6 months</li> <li>▪ 1: Employed past 6 months</li> </ul> Possible range: 0-1	<ul style="list-style-type: none"> <li>▪ 0: Unemployed past 6 months</li> <li>▪ 1: Employed past 6 months</li> </ul> Possible range: 0-1	<ul style="list-style-type: none"> <li>▪ 0: Unemployed past 6 months</li> <li>▪ 1: Employed past 6 months</li> </ul> Possible range: 0-1
Housing	<ul style="list-style-type: none"> <li>▪ 0: Rent or no cash rent</li> <li>▪ 1: Own</li> </ul> Possible range: 0-1	<ul style="list-style-type: none"> <li>▪ 0: Public housing</li> <li>▪ 1: Non-public housing</li> </ul> Possible range: 0-1	Not included
Possible range	0-8	0-8	0-7

48 Contiguous States

# of Persons in Household	2022 Federal Poverty Level for the 48 Contiguous States (Annual Income)						
	100%	133%	138%	150%	200%	300%	400%
1	\$13,590	\$18,075	\$18,754	\$20,385	\$27,180	\$40,770	\$54,360
2	\$18,310	\$24,352	\$25,268	\$27,465	\$36,620	\$54,930	\$73,240
3	\$23,030	\$30,630	\$31,781	\$34,545	\$46,060	\$69,090	\$92,120
4	\$27,750	\$36,908	\$38,295	\$41,625	\$55,500	\$83,250	\$111,000
5	\$32,470	\$43,185	\$44,809	\$48,705	\$64,940	\$97,410	\$129,880
6	\$37,190	\$49,463	\$51,322	\$55,785	\$74,380	\$111,570	\$148,760
7	\$41,910	\$55,740	\$57,836	\$62,865	\$83,820	\$125,730	\$167,640
8	\$46,630	\$62,018	\$64,349	\$69,945	\$93,260	\$139,890	\$186,520
Add \$4,720 for each person in household over 8 persons							