WhatsApp Political Expression and Political Participation: 
The Role of Ethnic Minorities’ Group Solidarity 
and Political Talk Ethnic Heterogeneity

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Online political activity takes many forms. Most research has heavily focused on the effects 
of these online behaviors on political participation in platforms such as Facebook or 
Twitter. This article focuses instead on WhatsApp, and compares how self-effects and 
acculturation theories have different predictions with regard to the mechanisms that 
explain the relationship between Latinxs’ political expression on this mobile instant 
messaging application and political participation. Results showed that Latinxs’ political 
expression through WhatsApp is related to their offline political participation. However, 
the direct and mediated relationship through group solidarity is dependent on political talk 
ethnic heterogeneity. The relationship among self-effects on acculturation processes is 
discussed as one potential explanation for understanding the complex ways in which 
perceptions of ethnic group solidarity, political talk ethnic heterogeneity, WhatsApp 
political expression, and offline political participation interact.

*Keywords*: WhatsApp, social media, ethnic minorities, group solidarity, political talk ethnic 
homogeneity, Latinx, self-effects, acculturation, political participation

The current media ecology is constituted not only by the presence of mobile social media 
applications like Twitter, Facebook, and Instagram, but also by mobile instant messaging applications such as WhatsApp. These mobile applications are part of an always-on culture that enable people to conveniently be in perpetual contact with their closest ties (Valeriani & Vaccari, 2018). WhatsApp differs in key features from other social media platforms. Social media use occurs largely through mobiles where they have become one of the most important sources for news consumption. This makes WhatsApp a very easy and convenient

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Date submitted: 2020-04-29

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Another distinctive aspect of WhatsApp is the control it offers over the reach of shared messages. This makes this type of application more suitable for personal and private conversations (Valenzuela, Bachmann, & Bargsted, 2021) as this control over the message reduces the tension between actual and imagined audiences so prevalent on social media (Litt, 2012) and reduces the likelihood of context collapse (Vitak, 2012; Vitak, Blasiola, Patil, & Litt, 2015). Indeed, contrary to what happens on social networking applications, ours and our contacts' behavior on WhatsApp is not broadcasted to other contacts besides those directly included in the interaction. Thus, the interactions taking place through WhatsApp are characterized by opaqueness, enabling greater privacy and control.

Such privacy and control characteristics may facilitate users' perceptions of a safer online space. This could make minority groups prefer these applications for political expression. In fact, in the United States, whereas only an estimated 20% of the U.S. population uses WhatsApp, approximately 42% of Latinxs are WhatsApp users (Perrin & Anderson, 2019), surpassing Latinx Snapchat (29%) and Twitter (25%) users. In addition to being the demographic group with the higher adoption of this mobile instant messaging application (Smith & Anderson, 2018), Latinxs also represent one of the fastest growing demographic groups in the United States (Flores, 2017), with high levels of social media adoption (Lopez, Gonzalez-Barrera, & Patten, 2013), but at the same time, lower levels of political engagement (Lopez, Gonzalez-Barrera, Krogstad, & López, 2016). Given the current political climate regarding the issue of immigration in the United States and toward the Latinx population in general (Barreto, 2018; Lopez, Gonzalez-Barrera, & Krogstad, 2018), WhatsApp can offer this minority group a safe space where they can express their political views free of social pressure. Thus, exploring the influence of politically based communications via mobile instant messaging applications like WhatsApp among Latinxs can offer unique insights into a less explored territory in mobile political communication research.

Extant research has indicated that information gains are the primary benefit from political engagement through social media, but self-effects are also generated when citizens engage with politics in online spaces (Gil de Zúñiga, Molyneux, & Zheng, 2014; Rojas & Puig-i-Abri, 2009; Valenzuela, 2013). Self-effects are those that take place on message senders as they communicate and generate messages (Pingree, 2007) and may result in higher levels of political certainty and changes in beliefs, emotions, attitudes, or behaviors of individuals (Valkenburg, 2017). Such self-effects are theorized to become stronger in less heterogeneous contexts (Shah et al., 2017). This study empirically tests the truth of this proposition for the case of a nonpolitical identity, extending our understanding of the effects of social media on participation under self-effects theory.

Following a self-effects framework, WhatsApp political expression should be positively related to political participation directly and indirectly through group solidarity. Group solidarity is defined as a perception of belonging, emotional attachment, and connectedness to members of a specific social group (Leach et al., 2008). Such a hypothesized indirect relationship is based on theorized self-concept changes that result from expression (Valkenburg, 2017). Moreover, the direct and indirect relationships between
WhatsApp political expression and political participation should depend on who people talk about politics with, as self-effects theory predicts that self-effects increase as heterogeneity decreases (Shah et al., 2017). Thus, a self-effects theory approach would support the notion that the relationship between WhatsApp political expression and political participation should weaken as Latinx individuals talk politics more frequently with non-Latinx individuals.

However, the political behavior of ethnic minorities in the United States, as is the case of Latinxs, has been explained through the notion of acculturation. Berry (2001) and Gordon (2010) define acculturation as a process that takes place during long periods of time when changes at the cultural and psychological levels occur among members of two different cultural groups when they come into contact. In this way, as individuals become more integrated and assimilated into a host culture, they adopt the norms and customs of that culture, including norms and expectations for political participation. This theoretical approach is at odds with the self-effects theory predictions regarding how political expression on WhatsApp might be related to political participation in the case of an ethnic minority. Indeed, if an acculturation theory perspective were adopted, it would be predicted that those who talk politics with people from another ethnic group more frequently show a stronger relationship between WhatsApp political expression and political participation, as those might have become more socially integrated and have internalized the social and cultural norms of the host society around politically related activities.

In sum, this study focuses on the mechanisms explaining the relationship between U.S. Latinx political expression on a mobile instant messaging application like WhatsApp and political participation, and compares how self-effects and acculturation theories offer different predictions regarding the conditional role of interethnic political talk in the relationship between WhatsApp political expression and political participation. Using data from a national survey of Latinx individuals in the United States, we employ a moderated mediation model to determine the extent to which the nature of WhatsApp political expression influences political participation and which theoretical perspective best describes the effects experienced by Latinxs as they interact through these mobile applications.

**Social Media, Self-Effects, and Political Talk Ethnic Heterogeneity**

In the study of media effects within the field of political communication, the primary focus has centered around the effects of receiving political messages and whether these come from news organizations or interpersonal contacts (Valkenburg, 2017). However, in the course of discussing politics and interacting with others about political content, self-effects are also present (Pingree, 2007). Not only do self-effects serve as important indicators of a wide array of political opinions, emotions, perceptions, and behaviors (Aronson, 1999; Shah, 2016), but they also may exert stronger influence on an individual than receiver effects (Han et al., 2011).

As users make decisions about whether to construct a message or which messages to share, they experience a collection of expression effects. These self-expression effects have been explained through four theoretical approaches: self-persuasion, self-concept change, expressive writing, and political deliberation (Valkenburg, 2017). Self-persuasion occurs when individuals persuade themselves to change their beliefs or attitudes toward an issue as they seek to remain consistent with regards to a communication
behavior. Self-concept changes take place when individuals modify their own self-concept notions after they interact with others. Based on their own communication behaviors, individuals adapt their self-concepts as they seek to avoid a dissonance between their behaviors, their self-concept beliefs, and their public displays of identity. Expressive writing effects take place as individuals express in writing different ideas that make them reflect on their beliefs, their knowledge, and their own identity. As individuals reflect and reevaluate during the writing process, they experience emotional and cognitive transformations. Finally, the political deliberation approach to self-effects includes expectation effects, where one anticipates the need for or the desire to construct a message. These effects can include more careful attention to a message or the creation of connections between a message and existing knowledge, attitudes, and beliefs (Valkenburg, 2017).

A second set of effects is defined as composition effects: the actual cognitive process through which an individual constructs a message for sharing. Once shared, message creators experience release effects. Release effects can be related to the social commitment embedded in a message, perceptions of the impact of the message on receivers, and the cathartic release of expressing an opinion (Pingree, 2007). Another type of release effect stems from the potential for either positive or negative responses from a network. Message senders, after all, anticipate not only the change in social perceptions of message receivers, but also the nature of the messages that may be received in response. In sum, prior to building a message, during message composition, and after the message has been sent, senders are affected as they learn new information, self-reflect, or commit to the opinions they have expressed, would want to express, or are asked to express.

Research has shown that as people engage in more expressive behaviors through social media, they tend to engage more in offline political participatory behaviors. These findings can be explained as self-effects. As the expected effects of social media expression can be information gains, self-reflection—with its subsequent reaffirmation of opinions—and cognitive consistency, the ultimate outcome of this process can be offline political participation. Findings in prior research support this idea. Rojas and Puig-i-Abril’s (2009) findings show how informational uses of online resources lead to offline engagement through online expression and mobilization efforts. Valenzuela (2013) provides similar evidence, showing how social media use influences a specific type of political action (i.e., political protesting) through social media political expression. Gil de Zúñiga and colleagues (2014), using panel data, found that increases in social media political expression lead to increased political engagement.

Therefore, consistent with previous findings, we expected that expression through WhatsApp would lead to political participation as increased expression of political views through this type of application serve to strengthen individuals’ beliefs and attitudes; lead them to commit and behave consistently with their expression; or conduce them to reevaluate or reflect on their beliefs, opinions, attitudes, or self-concept:

**H1:** *WhatsApp political expression is positively related to political participation.*

Although it was theorized that the Internet would become an open forum for in-depth and cross-cutting discussions (Delli Carpini, 2000), instead users tend to cluster around shared interests, beliefs, and most notably political ideology (Mutz, 2006). It would follow that in contexts of decreased heterogeneity, self-effects will be even stronger (Shah et al., 2017) as a consonant feedback loop of increased agreement.
and attitude strength may ensue. Shah and colleagues’ argument hypothesizes such a relationship in the context of political ideology, but such an effect also may be present for ethnic groups, especially if those ethnic identities are politicized. This might be the case for Latinxs in the United States, as experience with discrimination (Lopez et al., 2018), shared immigration experiences, and concern with immigration policies (Barreto, 2018; Lopez et al., 2018) contribute to such politicized forms of identity (Masuoka, 2006; Sanchez, 2006; Stokes, 2003; Velasquez, Barnidge, & Rojas, 2021), and thus operate in the same way political ideology might operate in contexts of decreased heterogeneity. Following this reasoning, we examined whether such self-effects become more apparent among those individuals who talk politics less frequently with individuals of a different ethnicity than their own. Therefore, we hypothesized that

H2: Political talk ethnic heterogeneity moderates the relationship between WhatsApp political expression and political participation. Such relationships become weaker as people talk more frequently with individuals from a different ethnic group.

However, it can also be the case that for an ethnic minority undergoing a process of acculturation, interacting in an environment of increased ethnic heterogeneity could operate differently in the relationship between WhatsApp political discussion and political participation. Indeed, a plethora of research has found evidence pointing at a relationship between acculturation and political participation among ethnic minorities (e.g., Albarracin & Valeva, 2011; Bedolla, 2003; Nelson, 1982; Tucker & Santiago, 2013). Overall, evidence from these studies suggests that as members of ethnic minorities become more acculturated, they also tend to become more politically involved.

Much of the research examining how the different levels of acculturation among Latinx people in the United States shape their political participation has defined this notion in terms of social integration. Such definition is grounded in Berry’s (2005) conceptualization of acculturation in terms of an individual’s relative preference of becoming part of the host culture and society, and of having contact with individuals from other ethnocultural groups that are also part of the host society. Thus, prior research has examined how the configuration of Latinxs’ social networks is related to their political participation. Findings from these studies suggest that as Latinx individuals have more social contact with people from other ethnic and racial groups, they become more involved in politics. Tucker and Santiago (2013) define acculturation in terms of Latinxs’ heterogeneity of friendship and coworker networks; they found that such diversity was positively related to their civic engagement. In another study, Albarracin and Valeva (2011) looked at the degree to which Latinxs’ social connections with members of other ethnic and racial groups were related to their engagement in different forms of political participation. They found that those Latinx individuals with more ethnically and racially diverse social networks had a higher likelihood of engaging in two specific forms of political action: contacting a public official and working for or contributing to a political campaign. Acculturation theory explains these relationships in terms of the increasing social identification with the host group, and how such integration and sense of belonging and commonality lead to their belief in a shared or common fate with the host society.

Thus, based on prior research, and on the theorized role that social integration plays in the acculturation process, we proposed the following competing hypothesis:
H3: Political talk ethnic heterogeneity moderates the relationship between WhatsApp political expression and political participation. Such relationship becomes stronger as people talk politics more frequently with individuals from a different ethnic group.

**WhatsApp, Group Solidarity, and Political Participation**

Individuals' self-concepts are partly based on how people see themselves in terms of their relationship to others and to social groups (Brewer & Gardner, 1996). The social groups with which people feel identified influence their perceptions of identity. Those group identity perceptions not only shape individuals’ behavior toward the groups people identify with, but also influence their attitudes, predispositions, and behaviors relevant to their group and its members.

The notion of group identification is defined as the portion of an individual's self-concept that originates from his or her membership in a social group, together with the value and emotional meaning an individual attaches to such membership (Tajfel, 1981, p. 255). In this sense, group identification comprises distinct aspects that together contribute to individuals’ group identification (Ellemers, Kortekaas, & Ouwerkerk, 1999). Based on Tajfel’s (1981) definition of group identification, it can be assumed that there are three components that compose individuals’ group identification: first, a cognitive awareness of an individual’s membership to a social group; second, the value-based connotation derived from such membership; and finally, the sense of emotional involvement and commitment with the group (Ellemers et al., 1999).

This study is focused on how a sense of affective commitment to the group (i.e., group solidarity) acts as a mediator in the relationship between political expression on WhatsApp and offline political participation. Although other research has called this construct group commitment (Ellemers et al., 1999) or emotional group attachment (Brewer & Gardner, 1996), it has been generally defined as the bond and commitment that individuals have to their group (Leach et al., 2008). Thus, in this study, we understand group solidarity as a perception of belonging, emotional attachment, and connectedness to members of a specific social group (Leach et al., 2008).

Research has long examined how social identities can become political identities (see Mason & Wronski, 2018, for a review). Indeed, work in this area has shown how identification with a group can influence different political attitudes and behaviors (e.g., Fowler & Kam, 2007; Mason & Wronski, 2018; van Stekelenburg & Klandermans, 2013). For example, increased group solidarity can influence the attitude individuals have toward issues that members of their group care about. Furthermore, as group members’ attitudes toward an issue of interest to their group become stronger, they can also become more invested and engage in issue-specific political activities to benefit their group (Holbrook, Sterrett, Johnson, & Krysan, 2015).

In the case of Latinxs’ in-group identification and political participation, previous studies have focused exclusively on self-categorization dimensions. Masuoka (2008) found that ethnic self-identification as Latinxs influenced positively voter registration and engagement in Latinx causes. Valdez (2011) included in her study a measure of ethnic self-categorization as Latinx, and found that it significantly influenced voting and voter registration. However, at least to our knowledge, research has yet to look at how commitment and emotional attachment to this ethnic group can operate as a mediator between expression and participation.
We argue that Latinxs’ expression of political views through WhatsApp will lead to higher levels of political participation as such political expression will influence their emotional attachment to this group. Furthermore, from a self-effects framework, this indirect relationship through group solidarity should be conditioned by how much Latinx individuals talk politics with other Latinx individuals. As explained previously, self-effects take place when individuals’ expressions coalesce into an adaptation of their self-concept. As individuals seek to remain consistent with the content of their expressions, they adjust their self-concept notions to avoid dissonance between their self-concept, their public displays of identity, and their behaviors.

Therefore, as individuals express their views on WhatsApp, their self-concept becomes affected, reflected in their group solidarity perceptions, and thus increases their political participation. But, the relationship between WhatsApp political expression and political participation through these feelings of commitment and affect toward other Latinx individuals should not be uniform. Following the self-effects logic, such relationships should be weaker among those Latinxs whose political talk network is more ethnically heterogeneous.

Therefore, we hypothesized that WhatsApp political expression would be positively related to Latinxs’ political participation through group solidarity perceptions, but that this indirect relationship is conditional on Latinxs’ cross-ethnic political talk. Such self-effects through group solidarity should be stronger among those who talk politics less frequently with non-Latinx individuals. We hypothesized the following:

\[ H4: \text{Group solidarity mediates the relationship between WhatsApp political expression and political participation, but this indirect relationship is moderated by political talk ethnic heterogeneity. WhatsApp political expression is positively related to political participation through group solidarity among those with a less heterogeneous political talk network.} \]

Acculturation theory would predict, on the contrary, that political talk ethnic heterogeneity conditions the process described previously through group solidarity, but in the opposite direction. Based on acculturation theory, one can argue that those who interact less frequently around politics with people from another ethnic group will see their social integration to other groups in society decrease, but their emotional attachment to their group will become stronger. This will make them feel less identified with society at large, and more marginalized from the social and political life of the host culture, leading to less participation. Therefore, following the mechanisms theorized in acculturation processes, we hypothesized that

\[ H5: \text{Group solidarity mediates the relationship between WhatsApp political expression and political participation, but this indirect relationship is moderated by political talk ethnic heterogeneity. WhatsApp political expression is negatively related to political participation through group solidarity among those with a more heterogeneous political talk network.} \]

**Method**

**Sample and Data Collection Procedures**

Data were collected during the first week of December 2017 following a stratified sampling procedure through Offerwise, a research panel company specialized in the Latinx population living in the
United States. This company has a panel comprising 350,000 individuals with a sociodemographic distribution that resembles the Latinx population in the United States. Participants accumulate points through participation in surveys that they can later turn into cash, following the research panel company’s own incentive system. The questionnaire was originally designed in English and translated later to Spanish by a bilingual research team member. A total of 48.4% of participants answered the questionnaire in English, and 51.6% opted for the Spanish version.

In total, 601 participants responded to the survey questionnaire. In the sample, 66.2% reported using WhatsApp (n = 398). See Table 1 for characteristics of those who reported using WhatsApp. The mean for WhatsApp use was 4.5 (SD = 0.94), on a scale from 1 (never) to 5 (several times a day). All results and analyses reported below pertain only to WhatsApp users.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (SD) age (years)</td>
<td>38.07 (12.76)</td>
</tr>
<tr>
<td>Sex, %</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>51.0</td>
</tr>
<tr>
<td>Female</td>
<td>49.0</td>
</tr>
<tr>
<td>Region, %</td>
<td></td>
</tr>
<tr>
<td>Northwest</td>
<td>17.9</td>
</tr>
<tr>
<td>Midwest</td>
<td>8.2</td>
</tr>
<tr>
<td>South</td>
<td>42.3</td>
</tr>
<tr>
<td>West</td>
<td>31.6</td>
</tr>
<tr>
<td>Education, %</td>
<td></td>
</tr>
<tr>
<td>High school or less</td>
<td>22.4</td>
</tr>
<tr>
<td>2-year degree/some college</td>
<td>21.3</td>
</tr>
<tr>
<td>Bachelor’s degree or more</td>
<td>56.5</td>
</tr>
<tr>
<td>Income, %</td>
<td></td>
</tr>
<tr>
<td>&lt;$30,000</td>
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</tr>
<tr>
<td>$30,000–$50,000</td>
<td>14.6</td>
</tr>
<tr>
<td>$50,000–$70,000</td>
<td>10.6</td>
</tr>
<tr>
<td>$70,000–$90,000</td>
<td>18.3</td>
</tr>
<tr>
<td>&gt;$90,000</td>
<td>29.6</td>
</tr>
<tr>
<td>Prefer not to say</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Measures**

WhatsApp political expression (M = 3.23, SD = 1.28, α = .91) was measured averaging the score of four items, adapted from social media political expression scales (Velasquez & Rojas, 2017). The preface asked respondents how frequently (1 = never, 5 = frequently) they did a set of activities using WhatsApp: (1) express views on current issues, (2) share news stories, (3) forward political information, and (4) engage in political discussions.
Group solidarity ($M = 4.31$, $SD = 0.87$, $\alpha = .85$) was measured averaging the score of three items, adapted from Leach and associates (2008), asking, On a scale from 1 to 5 ($1 = \text{strongly disagree}$, $5 = \text{strongly agree}$), how much do you agree with the following statements? The three items included were (1) I feel a bond with Hispanic/Latino people, (2) I feel solidarity with Hispanic/Latino people, and (3) I feel committed to Hispanics/Latinos.

Political participation ($M = 1.31$, $SD = 1.68$, $\alpha = .82$) was measured as an additive index comprising five political behaviors. For this study, we focused on what Valentino, Brader, Groenendyk, Gregorowicz, and Hutchings (2011) call high-cost forms of political participation. Such distinction is based on the resource-based model of political participation (Brady, Verba, & Schlozman, 1995). We believe that this form of political participation was more relevant given the political climate around immigrants and some members of the Latinx communities during the time data were collected for this study and given the collective nature of these forms of political action. Participants reported whether they had performed (1 = yes, 0 = no) the following political actions during the past 12 months: (1) attended a political rally, (2) worked for a movement or political party, (3) donated money or other objects to a political party or movement, (4) attended a social or political protest, (5) protested by blocking a street.

Political talk ethnic heterogeneity was measured with a single item that asked respondents to rate on a scale ($1 = \text{never}$, $5 = \text{frequently}$) how often they talked about politics or public affairs with non-Hispanics. The measure was then recoded to represent political talk ethnic homogeneity, so that those who talked politics with non-Hispanics more frequently (3–5) were coded as 0 and those who reported they never (1) or almost never (2) talked politics with non-Hispanics were coded as 1 ($1 = 36.9\%$, $0 = 63.1\%$).

In addition to sociodemographic variables, we included political interest, social media political discussion, news media use, internal political efficacy, and Latinx generation as control variables.

Political interest ($M = 7.76$, $SD = 2.53$) was determined using a 10-point scale ($1 = \text{not interested at all}$, $10 = \text{very interested}$) asking how interested respondents were in information about what is going on in government and politics.

Internal political efficacy ($M = 3.42$, $SD = 1.14$, $\alpha = .90$) was gauged using the measurement developed by Niemi, Craig, and Mattei (1991). Participants were asked to express their level of agreement to the following statements ($1 = \text{strongly disagree}$, $5 = \text{strongly agree}$): (1) I consider myself well qualified to participate in politics; (2) I feel I could do as good a job in public office as most other people; (3) I think I am as well informed about politics and government as most people; (4) Given the right opportunity, I feel that I could do a good job influencing public officials; and (5) To the extent that citizens can influence politics, my efforts to do so would be more effective than the average person.

Social media political discussion ($M = 2.97$, $SD = 1.27$, $\alpha = .93$) was measured by averaging the score of eight items based on an adaptation of Velasquez and Rojas’s (2017) social media political expression scale. Participants were asked to report how frequently ($1 = \text{never}$, $5 = \text{frequently}$) they performed a set of behaviors for each of the two most popular social media applications: Facebook and Twitter. The items included were (1) express your views on current issues; (2) share news stories with your contacts; (3)
express your views on issues of public interest; and (4) post or share photos, videos, memes, or gifs created by you that relate to current events or politics.

News media use \((M = 3.76, SD = 1.00, \alpha = .79)\) was calculated by averaging the score of three items. Participants were asked to report how frequently \((1 = never, 5 = frequently)\) they used different media to get information about current events, public issues, or politics. The items were (1) newspapers, including online editions; (2) online news magazines and citizen journalism; (3) websites; (4) radio, including online and satellite broadcasts; (5) television, including online, cable, and local broadcasts.

To measure Latinx generation, we asked participants whether they were born in the United States or not. Those answering that they were not were considered first-generation Latinxs (64.1%). Those who said that they were born in the United States were asked if they were second- (25.6%) or third-generation Latinxs (10.3%).

### Analyses

All of the assumptions for ordinary least squares regression were reviewed prior to testing all of the hypotheses. DFBETAS diagnostics were used to investigate whether any influential outlier cases were present, but none were identified. Observations with missing data were excluded using listwise deletion \((n = 391)\). The PROCESS macro for SPSS (Hayes, 2018) was used to perform the mediation analyses. See Table 2 for the correlation coefficients among variables.

#### Table 2. Correlation Matrix.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political participation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WhatsApp political expression</td>
<td>.503**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group solidarity</td>
<td>-.030</td>
<td>.057</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political talk ethnic heterogeneity</td>
<td>.423**</td>
<td>.530**</td>
<td>.121*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social media political discussion</td>
<td>.512**</td>
<td>.714**</td>
<td>.135**</td>
<td>.529**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal political efficacy</td>
<td>.492**</td>
<td>.583**</td>
<td>.101*</td>
<td>.533**</td>
<td>.599**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political interest</td>
<td>.337**</td>
<td>.431**</td>
<td>.191**</td>
<td>.452**</td>
<td>.431**</td>
<td>.503**</td>
<td></td>
</tr>
<tr>
<td>News use</td>
<td>.329**</td>
<td>.494**</td>
<td>.325**</td>
<td>.448**</td>
<td>.544**</td>
<td>.432**</td>
<td>.463**</td>
</tr>
</tbody>
</table>

*Note. *\(p < .05. **\(p < .01. ***\(p < .001.*

### Results

The analyses were focused on the direct, indirect, and conditional relationships between WhatsApp political expression and political participation. Specifically, the analyses looked at the direct relationship between WhatsApp political expression and political participation \((H1)\), and how political talk ethnic homogeneity moderated this relationship \((H2, H3)\). Also, we examined the extent to which the relationship between WhatsApp political expression and political participation through group solidarity was conditional on political talk ethnic homogeneity \((H4, H5)\).
Hypothesis 1 was tested using an ordinary least squares regression model. The results for each regression coefficient, including the coefficients for all control variables, are included in Table 3. WhatsApp political expression was positively and significantly related with political participation after accounting for all the control variables ($\beta = .163, p = .01$). Hypothesis 1 was supported.

### Table 3. Ordinary Least Squares Regression Predicting Political Participation (N = 391).

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>WhatsApp political discussion</td>
<td>.163</td>
<td>.010</td>
</tr>
<tr>
<td>Social media political discussion</td>
<td>.200</td>
<td>.003</td>
</tr>
<tr>
<td>Generation</td>
<td>.104</td>
<td>.017</td>
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<tr>
<td>Internal political efficacy</td>
<td>.200</td>
<td>.000</td>
</tr>
<tr>
<td>Political interest</td>
<td>.078</td>
<td>.130</td>
</tr>
<tr>
<td>News use</td>
<td>.026</td>
<td>.621</td>
</tr>
<tr>
<td>Age</td>
<td>-.088</td>
<td>.054</td>
</tr>
<tr>
<td>Sex</td>
<td>-.009</td>
<td>.834</td>
</tr>
<tr>
<td>Income</td>
<td>.072</td>
<td>.152</td>
</tr>
<tr>
<td>Education</td>
<td>-.051</td>
<td>.311</td>
</tr>
</tbody>
</table>

$R^2 = .355$

$F(10, 381) = 22.498, p < .001$

Competing Hypotheses 2 and 3 and Hypotheses 4 and 5 were tested simultaneously using Model 8 of Hayes’s (2018) PROCESS for SPSS with 10,000 bootstrapped samples. This model allowed us to test how political talk ethnic homogeneity moderated the mediated relationship between WhatsApp political expression and political participation through group solidarity.

Hypothesis 2 suggested that political talk ethnic homogeneity would moderate the direct relationship between WhatsApp political expression and political participation so that the relationship would become weaker as people talk more frequently with individuals from a different ethnic group. Hypothesis 3, based on the acculturation theory prediction, suggested that such a direct relationship would be moderated, but that it would become stronger as people talk politics more frequently with individuals from a different ethnic group. Results indicated that the interaction term between WhatsApp political expression and political talk ethnic homogeneity significantly moderated the direct relationship between WhatsApp political expression and political participation ($\beta = .129, p = .001$). The direction of the interaction supported Hypothesis 3.

Figure 1 shows the interaction effect of political talk ethnic network heterogeneity and WhatsApp political expression on political participation. It was observed that the direct relationship between WhatsApp political expression and political participation became positive and significant as political talk ethnic heterogeneity increased. Hypothesis 2 posed that an interaction existed, but that it was expected that a less heterogeneous network would strengthen the relationship between WhatsApp expression and political participation. Therefore, our findings showed a conditional direct relationship in the direction predicted by acculturation theory. Hypothesis 2 was not supported, and Hypothesis 3 was supported.
Hypothesis 4 posed that the indirect relationship between WhatsApp political expression and political participation through group solidarity would be moderated by political talk ethnic homogeneity so that WhatsApp political expression would be positively related to political participation through group solidarity among those with a less heterogeneous political talk network. Hypothesis 5 posed that such moderated mediation existed, but argued that WhatsApp political expression would be negatively related to political participation through group solidarity among those with a more heterogeneous political talk network.

The results of the conditional mediated model (see Table 4) illustrate how the indirect relationship between WhatsApp political expression and political participation through group solidarity varies as political talk network ethnic heterogeneity changes. Specifically, the mechanism explaining the relationship between WhatsApp political expression and political participation through group solidarity was positive and significant as political talk ethnic heterogeneity decreased ($b = .0375, CI [.0211, .0057]$), supporting Hypothesis 4. This
means that group solidarity might partially explain the relationship between WhatsApp political expression and political participation, but only when Latinxs talk less frequently about politics with other non-Latinx individuals. Moreover, the index of moderated mediation, which tests for the significance of the difference in the indirect relationship between two variables as a function of a moderator (Hayes, 2015), suggests that the mediation through group solidarity significantly varies depending on political talk ethnic heterogeneity (index = −.0136, CI [−.0369, −.0090]).

Table 4. Coefficients for the Proposed Conditional Mediated Model.

<table>
<thead>
<tr>
<th>Political talk ethnic heterogeneity</th>
<th>Conditional direct effect</th>
<th>Conditional indirect effect</th>
<th>95% bias-corrected bootstrap CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Effect</td>
<td>p</td>
<td>Effect</td>
</tr>
<tr>
<td>1.599</td>
<td>.0415</td>
<td>.651</td>
<td>.0375</td>
</tr>
<tr>
<td>3.064</td>
<td>.2301</td>
<td>.006**</td>
<td>.0176</td>
</tr>
<tr>
<td>4.529</td>
<td>.4188</td>
<td>&lt;.001***</td>
<td>−.0023</td>
</tr>
</tbody>
</table>

Note. **p < .01. ***p < .001.

Figure 2 illustrates how the moderated mediation operates. The line for the conditional direct relationship shows that WhatsApp political expression increases political participation, but that the relationship is stronger for Latinxs who talk about politics frequently with non-Latinx people. In contrast, the line for the indirect effect shows that the relationship between WhatsApp political expression and political participation through group solidarity is stronger for those with a less heterogeneous ethnic political talk network.

Figure 2. Conditional direct and indirect effects of WhatsApp political expression on political participation as moderated by political talk ethnic homogeneity.
Results for all regressions involved in testing the moderated mediation are presented in Table 5.

**Table 5. Mediation of Group Solidarity in the Relationship Between WhatsApp Expression and Political Participation as Moderated by Political Talk Ethnic Heterogeneity (PTEH).**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group solidarity</th>
<th>Political participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.151</td>
<td>5.496</td>
</tr>
<tr>
<td>WhatsApp political expression</td>
<td>-.271</td>
<td>-.164</td>
</tr>
<tr>
<td>Group solidarity</td>
<td>-</td>
<td>-.218</td>
</tr>
<tr>
<td>PTEH</td>
<td>-.201</td>
<td>-.318</td>
</tr>
<tr>
<td>Social media political discussion</td>
<td>.062</td>
<td>.129</td>
</tr>
<tr>
<td>Generation</td>
<td>-.213</td>
<td>.190</td>
</tr>
<tr>
<td>Internal political efficacy</td>
<td>.010</td>
<td>.263</td>
</tr>
<tr>
<td>Political interest</td>
<td>.039</td>
<td>.056</td>
</tr>
<tr>
<td>News use</td>
<td>.251</td>
<td>.048</td>
</tr>
<tr>
<td>Age</td>
<td>.004</td>
<td>-.010</td>
</tr>
<tr>
<td>Sex</td>
<td>.098</td>
<td>-.064</td>
</tr>
<tr>
<td>Income</td>
<td>-.002</td>
<td>.036</td>
</tr>
<tr>
<td>Education</td>
<td>-.072</td>
<td>-.049</td>
</tr>
</tbody>
</table>

\[ R^2 = .218 \quad R^2 = .400 \]

\[ F(12, 379) = 8.82, p < .001 \quad F(13, 378) = 19.39, p < .001 \]

**Discussion**

This study compared how self-effects and acculturation theories had different predictions about the conditional role of interethnic political talk in the direct and indirect relationship—through group solidarity—between WhatsApp political expression and political participation. Latinxs’ condition as an ethnic minority with immigrant heritage represents an interesting case in which these two theoretical approaches offer opposing predictions. Following the self-effects research tradition, we argued that the construction of political messages on WhatsApp would affect senders, making them more likely to engage in political
participation, and that WhatsApp political expression would influence ethnic group solidarity perceptions—as part of those self-effects—which would subsequently lead to political participation. However, we expected different outcomes when examining the role of political talk ethnic heterogeneity as a moderator in both the direct and indirect relationships, as predicted by self-effects and acculturation theories.

Our results offer support for the basic expectation that WhatsApp political expression would be positively related to political participation. We based this expectation on self-expression effects theory. However, it can also be argued that as individuals engage in political talk, they gain more knowledge and a better understanding of issues (Cho et al., 2009), and become more politically efficacious, especially if such interaction takes place among people more similar to them, galvanizing their intentions to act (Jost et al., 2018). In consonance with Valenzuela and colleagues (2021), we found that, overall, sharing political news and opinions through WhatsApp had a positive relationship with engaging in political activities. In their study, Valenzuela and associates (2021) used a measure of political participation that mixed protest, petitioning, and expressive forms of participation, whereas this study focused only on costly forms of engagement such as working for a campaign and attending rallies. In their study, Gil de Zúñiga and colleagues (2021) separately examined the relationship between WhatsApp political expression and conventional participation and activism. Our findings align as well with those of that study, confirming that WhatsApp political expression can act as a predictor of more costly forms of participation.

The present study contributes to what these two prior studies taught us about the relationship between WhatsApp political expression and political participation. As an extension of self-effects theory, our findings suggest that political expression through WhatsApp by Latinx individuals, coupled with the ethnic makeup of those with whom they discuss politics and with perceptions of group solidarity, significantly influence the degree to which Latinxs are likely to participate in political activism. We found that for those who talk politics less frequently with non-Latinx individuals, the relationship between WhatsApp political expression and political participation through group solidarity was significant and positive, whereas for those who engage more frequently in cross-ethnic political talk, the indirect relationship between WhatsApp political expression and political participation through group solidarity was not significant. In other words, we found that only for those who had a less ethnically diverse political network, WhatsApp political expression led to perceptions of commitment and emotional attachment to their group, which led to political activism.

Other studies have found evidence suggesting that in-group identification can lead to social media political expression (Velasquez, Montgomery, & Hall, 2019). The findings presented here showed that political expression through applications like WhatsApp can contribute to a particular form of in-group identification, like group solidarity, based on the explanatory mechanisms offered by self-effects theory. Moreover, the finding that group solidarity mediated the relationship between expression and participation, but only among those with a less ethnically diverse political talk network, could suggest that the self-concept changes mechanism of self-effects theory becomes apparent particularly for those with higher levels of in-group identification. This would be in consonance with the notion that self-effects are most likely to be present in contexts of higher political homogeneity and with other studies suggesting that closed online groups actually facilitate political expression (Coppini et al., 2017). Further research could explore the feedback loop between identification, political expression, and participation especially in online applications that enable discussion in closed and well-defined groups.
Although the indirect relationship through group solidarity among those with a less heterogeneous political talk network supported self-effects theory predictions, findings showed that the direct relationship was stronger for individuals who engaged in cross-ethnic political conversation more frequently, supporting an acculturation theory perspective of this relationship. This suggests that, at least in the case of ethnic minorities, the outcomes of using WhatsApp to share news and political views for political participation are more visible to those who have integrated more into mainstream culture. Moreover, these results support the idea how, gradually, as individuals become acculturated, their path toward political participation in the host culture occurs as they are less identified with their group and are integrated into more heterogeneous political talk networks. This evidence would set a boundary to self-expression effects, at least in contexts of ethnic homogeneity.

Thus, this study presents the complexities and nuances of the relationship among expression effects, group identity, and political participation as Latinx individuals acculturate into American society. These results, on one hand, support the prediction based on acculturation theory that cross-ethnic political talk strengthens the relationship between WhatsApp expression and participation, and not all the way around, as a self-effects framework suggests. On the other hand, it supports a conditioned mediation where WhatsApp discussion leads to group solidarity and then to political participation, but among those who discuss politics less frequently with non-Latinx individuals, supporting a self-effects approach.

Therefore, these findings suggest that for certain minorities, Latinxs in our study, although increased political talk with individuals from a different ethnicity results in more political participation, it does so at the cost of reducing group solidarity. Indeed, although the indirect relationship through group solidarity on political participation for those engaging in cross-ethnic political talk was not statistically significant, the interaction term between WhatsApp political expression and cross-ethnic political talk suggests that for those who engage in cross-ethnic political talk, political expression on WhatsApp decreases group solidarity. The normative implications of these findings, however, are less obvious. On one hand, increased political participation is typically considered a positive outcome, but on the other, sense of belonging and commitment to a minority group can be a form of advancing an underprivileged group in society or a mechanism that perpetuates underachievement by not allowing for full societal integration.

However, acculturation processes, which reflect the broad cultural and psychological changes that accompany contact between two cultural groups (Berry, 2001; Gordon, 2010), can be approached differently depending on the individual characteristics, values, and goals of those interacting with those belonging to different cultural groups (Berry, 2005). These values focus on the extent to which individuals identify with their own culture in relation to their level of identification with another culture. The balance between these values influences the degree of perceived in-group solidarity individuals might feel toward their own ethnic group or their desire to connect with another group within society. These individual differences not only drive what types of behaviors and interactions an individual might value, but also the effect of those interactions (Quenette & Velasquez, 2018). The effect of acculturation then can be one reason to explain why individuals may experience differing effects of WhatsApp expression on political participation as a function of their degree of cross-ethnic political talk and the extent to which they value and desire closeness to either cultural group.
Opposed to other social media applications, mobile instant messaging applications such as WhatsApp are designed for interaction and information sharing in closed and well-defined user-created groups. This makes them more prone to be used for personal affairs with close ties (Valenzuela et al., 2021). Evidence in this study shows how such features might enable members of minority groups to see these applications as safe spaces for political expression.

The differential effects of cross-ethnic political talk in the direct and indirect relationship between WhatsApp political expression and participation are also important. Moreover, future research needs to replicate our findings while considering different groups and how emotional attachment, commitment, and sense of belonging might differ for groups with different statuses and political objectives. It may well be that group solidarity works positively for groups with higher social status or those seeking a more confrontational approach to societal integration, whereas it actually reduces the participation potential of groups seeking a more "melting pot" ideal of social integration.

Although we consider these findings to be provocative, they are not without limitation. Most significantly, the cross-sectional nature of our design limits our ability to present actual proof of the causal model being adopted here. Although the findings are based on existing theory, they can be logically challenged. It is also possible that people with higher levels of group solidarity choose to interact less with non-Latinx individuals; yet, being in a minority limits their chances to use the technological platforms for political purposes, especially social media platforms that use highly specified and closed networks. This line of reasoning, although plausible, would not explain why increased group solidarity is negatively related to political participation; still, a longitudinal approach to this problem would be welcome in future research.

Conclusion

In sum, this study provides evidence that technologies like WhatsApp can spur the political participation of a minority group. Through acculturation processes at work in closed social networks, Latinx individuals become more politically engaged based on the members of their social networks. Whereas the bulk of research connecting social media engagement and online political discussion has focused intensely on platforms such as Twitter and Facebook, this study demonstrates that the functional features of other social media platforms can also drive political engagement among an active and rapidly changing and growing ethnic group in the United States.

References


