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Understanding Change in Social-Movement Participation: The Roles of Social Norms and Group Efficacy

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Across the globe, collective action has been a notable driver of social change. Previous research has identified numerous psychological antecedents of collective action participation, such as group efficacy. The mobilizing influence of social norms, however, has been comparatively neglected. Among a nationally representative Chilean sample (N = 3328), a three-wave longitudinal study tested the relationship between the perceived frequency of family and friends' participation in social movements (norms of close social networks) and change in the frequency of participants' own engagement over time. Perceived efficacy of social movements to facilitate social change was tested as a mediator of this relationship. A fully constrained bidirectional cross-lagged panel model revealed that norms of close social networks significantly predicted social-movement participation over time. This longitudinal relationship was also significantly mediated by group efficacy. Direct reverse paths were also observed, with social-movement participation predicting norms of close social networks over time. Considering low degrees of political participation often seen in societies, these results suggest that utilizing the normative context to promote participation in social movements may prove fruitful in mobilizing the drive for social change.

KEY WORDS: collective action, descriptive norms, group efficacy, longitudinal, Chile

In recent years, the world has seen a dramatic increase in mass social movements in various countries. Anti-government protests arose in Chile, Hong Kong, and Iran, to name but a few, and in September 2019, millions were united worldwide in a movement to combat climate change. As social-movement participation appears to have accelerated globally, it is pertinent to understand factors which predict the change in social-movement participation over time. In Chile, there has been a growth in mass protests in recent decades, culminating in the October 2019 outbreak of large-scale protests, stemming from discontentment surrounding issues that affect the quality of life of the general public. Though the issues raised by protesters have not yet been thoroughly addressed, as a result of the demonstrations, the government has taken a number of measures towards reform;

withdrawing the latest increase in metro fare (Holland, 2019), increasing minimum wage and wealth tax (Associated Press in Santiago, 2019), and introducing constitutional reform that will be put to vote in a national referendum (Bartlett, 2019). Although many feel that these changes are insufficient, they may nonetheless give some hope that the ability of large-scale social movements to facilitate social change is conceivable, if not yet achieved.

Collective action is defined as any action taken to advance the goals and interests of the group (Wright, Taylor, & Moghaddam, 1990). Such actions can involve participating in social movements by engaging in a range of activities, such as social-media campaigns, signing petitions, or attending protests. Having reached unprecedented levels over the last two decades, large-scale collective action will likely become an enduring phenomenon with the power to reconfigure how politics is conducted (Castells, 2015; Nwanevu, 2020). In the current research, we broaden our understanding of the psychology of this "age of mass protest" (Kose, 2019, November 27) by addressing the roles of norms and group efficacy in the transmission of social-movement participation. Studies which examine predictors of participation in social movements at a single snapshot in history may be unable to adequately explain why movements gather such momentum over time. There is a need to identify not only factors which motivate a change in the frequency of social-movement participation, but also mechanisms of this change using a longitudinal design. Although previous models of collective action, such as those which focus on efficacy beliefs (see Mummendey, Kessler, Klink, & Mielke, 1999; van Zomeren, 2013), have seen substantial support, the role of the behavior of close social networks (e.g., family and friends) in motivating social-movement participation has largely gone underexamined. As people see those around them take to the streets, they may begin to view action as worthwhile, and later take to the streets themselves. To this effect, this study investigates the capacity of descriptive social norms and group efficacy to predict change in participation in social movements over time.

Normative Influence

Much research has illustrated the influence of significant others on one's own behavior and attitudes. Literature on normative influence demonstrates that the actions of members of relevant social groups provide guidelines for the actions and attitudes of ingroup members. Adhering to group norms allows us to maintain social bonds with others (Cialdini & Goldstein, 2004) and avoid rejection (Abrams, Palmer, Rutland, Cameron, & Van de Vyver, 2014). Social norms play an important role in Ajzen's (1985) theory of planned behavior, in which subjective norms predict behavior via intentions. It is also suggested that normative influence is strengthened when there is shared group membership between the observer and the sources of normative behavior (e.g., Terry & Hogg, 1996). Close members of one's social network such as friends and family, then, are particularly relevant sources of normative influence, in part as the motivation to avoid social rejection may be particularly powerful, and because such proximal members of one's social network may exert influence through the socialization of political values.

There has been substantial work, for example, illustrating the importance of family in the development of offspring's views (Flanagan & Sherrod, 1998; Sears & Levy, 2003). Furthermore, recent evidence has revealed that perceived family norms are a key mechanism of the intergenerational transmission of collective action participation from parents to children (González et al., 2020). Perceiving the typical behavior of friends and family, otherwise known as descriptive norms, has indeed been demonstrably effective in predicting a variety of political intentions and behaviors, such as voting intentions (Glynn, Huge, & Lunney, 2009), proenvironmental behaviors (Collado, Staats, & Sancho, 2019), and political participation (Dotti Sani & Quaranta, 2015).

The importance of close social networks in social-movement participation has also been addressed in sociological literature. Somma (2009), for example, notes that "strong tie contacts"—that

is, those with whom we have close relationships, such as friends and family—play an important role in the recruitment of activists. This may be due to increased trust and similarity between such close contacts, which increases their influence. Moreover, these strong ties can be particularly important in encouraging actual participation in social movements (e.g., Walgrave & Ketelaars, 2019). As such, this study examines the role of friends and family, jointly conceptualized as close social networks, in influencing social-movement participation over time.

There have also been some previous attempts to integrate social norms into collective action literature from a psychological perspective. Smith, Thomas, and McGarty (2015) outlined how the emergence of social movements is facilitated by the construction of shared social norms about the desired social change, which consolidate through communication with others and form the basis of a social identity through which collective action can be organized. Thomas and McGarty (2009) have also attempted to integrate group efficacy and normative influence effects on collective action intentions. They examined the effects of manipulated efficacy and outrage norms of an emerging opinion-based group identity on support for the millennium development activities. Although the group efficacy norm did not significantly increase action intentions, the outrage norm did appear to influence both group efficacy and intentions to support the movement. In addition, an agentic normative influence model has been proposed by Louis and colleagues (Louis, 2009; Louis, Taylor, & Douglas, 2005; Louis, Taylor, & Neil, 2004; see also Louis, 2014), highlighting that group norms can guide perceptions of the costs and benefits of acting on behalf of the group.

Social influence more generally has also been examined in relation to collective participation, in the form of social support. The anticipation of others' support in participating in a social movement can facilitate one's own participation. van Zomeren, Spears, Fischer, and Leach (2004) demonstrate that shared appraisal of disadvantage as unjust, as well as perceptions that others are willing to engage in collective action, can facilitate collective action participation by providing emotional and instrumental coping resources. These emotional and instrumental social supports, while not conceptualized as social norms, nonetheless act as important sources of social influence which can guide the decision to participate in social movements. The studies conducted by van Zomeren et al. were experimental in nature, and manipulated perceived social support in relation to an artificial issue. Furthermore, instrumental social support denotes the perception of future willingness to participate in collective action. In studying the role of social norms, we wished to explore whether the reported actual participation of members of one's close social network can influence participation in current social movements and propose that such a perception of others' participation can enhance beliefs about the effectiveness of the movement.

Group Efficacy and Participation in Social Movements

The perceived efficacy of participation has often been considered a key factor in explanatory models of collective action. In order to better understand subjective motives for participation, Klandermans (1984) integrated expectancy-value appraisals into the then-prevailing model of collective action: resource mobilization theory (McCarthy & Zald, 1977), which suggested that individuals decide to engage in collective action upon weighing the costs and benefits of participation. Klandermans proposed that individuals consider the expected value of participation to achieve the collective good in order to inform their decision to participate in collective action. Further work, notably from Mummendey et al. (1999), highlighted the importance of perceived *collective* efficacy in predicting engagement in collective action. That is, the perceived ability of the group's collective efforts to achieve the group's goals is an important motivator of collective action. Such collective, or group efficacy, is often considered a more relevant predictor of actions taken on behalf of the group, compared to beliefs about an individual's own efficacy. Individual efficacy, as well as participative efficacy (perceptions of the incremental efficacy of an individual's participation) have also

been examined (Chan, 2016; Mazzoni, van Zomeren, & Cicognani, 2015; van Zomeren, Saguy, & Schellhaas, 2012). While these conceptualizations of perceived efficacy can have independent influences (van Zomeren et al., 2012), we focus on the role of group efficacy to align with more common theorizing about the influence of efficacy on collective action and because the collective focus of social norms seems most relevant to a conception of collective empowerment to achieve social change. Furthermore, although Mazzoni et al. illustrated that participative efficacy can have unique and sometimes stronger influences on activists' participation, group efficacy may particularly be important for broader samples, who may not necessarily be considered activists.

This sense of group efficacy has often been shown to predict collective action behaviors and intentions (Hornsey et al., 2006; van Zomeren, 2013; van Zomeren et al., 2004) and is a key component of current models examining antecedents of social-movement participation. In the social identity model of collective action (SIMCA; van Zomeren, Postmes, & Spears, 2008) group efficacy—conceptualized as the belief that collective action can lead to the desired social change—alongside perceived injustice, predicts greater participation in collective actions to support the relevant group. The predictive power of group efficacy and injustice are additionally shown to arise, in part, from identification with a relevant social group expected to benefit from collective actions. The SIMCA model has recently been tested longitudinally with a nationally representative sample (Thomas, Zubielevitch, Sibley, & Osborne, 2020). Although the expected positive relationship between efficacy and increased support for collective action was not supported, efficacy was measured on the basis of the individual's ability to influence governmental decisions, and general support for collective action was examined, rather than actual participation. We instead investigate perceived efficacy of social movements and its mediating role in the relationship between social norms and social-movement participation.

The Role of Group Efficacy in Normative Influence of Social-Movement Participation

Despite the abundance of research investigating normative influence on a wide range of outcomes, there is a relative dearth of studies examining the effects of social norms on participation in social movements. Furthermore, where normative influence has been studied in the context of political behaviors, only the direct influence of norms has tended to be examined (e.g., Dotti Sani & Quaranta, 2015; Glynn et al., 2009). The conceptualization of normative influence as merely enacted directly overlooks the capacity of individuals to engage reflectively with normative information. Rather, people may consciously navigate the social and political environment, using normative information to inform their beliefs about the behavior in question. Therefore, although normative influence may of course be in part directly enacted, the perception of norms about social-movement participation may also exert indirect influence by informing the observer's perceptions about the appropriateness or consequences of participation. Louis et al. (2005), for example, demonstrated that perceived norms influenced behavioral intentions (to use English in consumer contexts in predominantly Francophone areas) by influencing cost-benefit evaluations of the consequences of the behavior. In essence, norms can be agentic as they illustrate the means to advance the position or status of ingroup members, particularly in the context of social conflicts. When displayed by trusted others, social norms may indicate that an action is desirable and advantageous. Perceiving norms from significant others, then, may help to foster a sense of efficacy of participation in social movements, which may in turn encourage actual engagement.

In support of this prediction, van Zomeren et al.'s (2004) work on instrumental social support illustrated that the perceived willingness of others to engage in a social movement can enhance group-efficacy beliefs. Following from Lazarus' (1991) notion of problem-focused coping, this instrumental support provides the social and informational resources to cope with disadvantage and mobilize social change through collective action. Knowing that others are likely to engage in

collective action can foster the belief that the action may be effective in achieving social change. In addition, the perceived efficacy of protest may also be influenced by the size of the group who is perceived to frequently attend (Gould, 2003). As such, awareness of the active participation of close others in a social movement may, beyond its direct normative influence, also predict one's own participation by facilitating the belief that the movement can be efficacious.

The Current Study

In the current research, we therefore examine whether perceiving members of individuals' close networks, such as friends and family, to frequently participate in valued social movements influences one's own participation over time through perceptions of the efficacy of the social movement. We survey a nationally representative random sample of Chilean adults across three waves to investigate these relationships.

Additionally, we implement a longitudinal panel design, which provides a number of advantages compared with other models. First, it allows us to test predictors of the change in social-movement participation over time. Secondly, the adoption of a cross-lagged panel model enables us to test the causal direction of the relationships studied: whether they are unidirectional or bidirectional. While the perception of norms is commonly assumed to influence behavior, normative influence can also be recursive. It may be that participants' own social-movement participation also acts as normative influence for their close social networks, leading to an increase in the perception of the frequency with which friends and family participate in social movements. Drury and Reicher (1999) also argue that the recursive role of empowerment—conceptually related to group efficacy—in predicting collective action should be investigated in a single model. Participation may increase a sense of empowerment just as empowerment may increase participation. Utilizing a cross-lagged panel design allows us to test these possibilities empirically. Moreover, we employ a three-wave panel design, which, though not often achieved in literature on social-movement participation, has been considered necessary for the examination of mediation effects (Cole & Maxwell, 2003), and particularly to explain change over time.

We therefore hypothesize that descriptive norms of close social networks (friends and family members) will predict change in social-movement participation over time (H1). Specifically, we expect that the greater frequency with which friends and family are perceived to participate in social movements in wave one will predict an increase in respondents' own social-movement participation in subsequent waves. Secondly, we hypothesize that the relationship between descriptive norms of close social networks and social-movement participation change over time will be mediated by a change in the perceived efficacy of social movements (H2).

The Chilean Context

Social movements have a prominent role in Chile's history. From 1973 to 1990, large-scale protests were instrumental in bringing an end to the military dictatorship of Pinochet. After the 1988 referendum, the frequency of social movements declined as the country returned to democracy (Cañas, 2016). During such time, Chile has undergone profound economic and social transformations. Of particular note is the growth in GDP per capita, which, adjusted for purchasing power parity, rose from US$9544 in 1990, to US$24,338 in 2018, representing a 155% increase (World Bank, 2020). Nevertheless, these progresses have not benefited all members of the population to the same extent. Inequality has remained a critical issue in Chilean society, which exhibits a GINI index of 46, according to the Organisation for Economic Cooperation and Development (OECD, 2019). Furthermore, social vulnerability has remained a threat to most Chileans. The national poverty survey (CASEN)

reveals that one third of those surveyed are considered to live below the poverty line in at least one of the previous four surveys (PNUD, 2017).

The inequality prevalent in Chile affects not only issues of economic concern, such as labor, student fees, or the pension system, but it also manifests in widespread social inequality which has a disproportionate negative impact on minority groups. As such, issues affecting women, sexual minorities, and indigenous groups can be exacerbated by this same inequality. Somma (2017) notes that many of the social movements prevalent in Chile today stem from a specific discontent with the market society, which has seen little reform since the military regime, as well as the unwillingness of political elites to address grievances and reform existing structures. This discontent extends beyond labor and consumer concerns, also affecting the social and environmental surroundings of Chileans in everyday life.

From 2006 onward, reaching levels not observed since the 1980s, social movements reappeared, first led by students, who demanded free, quality public education, and later joined by several other movements and social demands (Donoso & Von Bülow, 2016). In 2019, in a culmination of rising discontent, Chile experienced its largest wave of social protests. This social outbreak fostered unprecedented changes at the political and socioeconomic level, including the proposal to develop a new political constitution, which will be decided in a national referendum.

In this study, we investigate respondents' reported participation in a variety of relevant movements and how their frequency of participation changes over time. During the time frame of the study, participation in social movements was rather widespread, with an array of movements simultaneously in public focus—from student-focused movements, to pension-related protests, to movements supporting gender and ethnic minorities. As illustrated above, many of these movements share underlying grievances, reflecting concerns of social inequality largely arising from great economic disparity, distrust in political institutions (government, political parties, and congress), and perceived social injustice, especially regarding health and education, among other concerns about social issues. As such, we do not focus on one particular social movement, but respondents are invited to select a social movement which they value and respond with reference to this movement. The culture of participation itself is therefore of primary importance in this study.

Method

Participants

A nationally representative sample of 4447 adults aged 18–75 (M_{age} = 46.09, SD = 15.29), was recruited from 40 Chilean cities as part of the first three waves of the Longitudinal Social Study of Chile (ELSOC), organized by the Centre for Social Conflict and Cohesion (COES). From this omnibus dataset, the relevant variables of study were chosen. The baseline sample (T1) included 2927 participants (39.7% male, 60.3% female). At T2, 2473 participated (38.5% male, 61.5% female), and T3 included 3748 individuals (38.6% male, 61.4% female), 1519 of which were part of a "refreshed" sample and had not participated in previous waves. Although some participants did not complete all waves, full-information maximum-likelihood estimation methods uses all available data to obtain accurate parameter estimates in the presence of missing information (Schafer & Graham, 2002; Wothke, 2000).

Procedure

Using a four-stage probabilistic stratified sampling framework, 40 cities were randomly selected from several regions of Chile. Within these cities, 1067 blocks were chosen at random. Households within these blocks were then randomly selected, and an individual over the age of 18 was chosen

randomly from each household. Participation was voluntary, with participants providing written consent. In each wave, participants completed a 55-minute survey in their own homes, facilitated by a trained interviewer who was outsourced from an external organization. Waves were completed yearly, beginning in 2016. Monetary remuneration of $6000 CLP (approximately US$7.85) was given as an incentive to participate.

Measures

Participants were first given a list of social movements and asked to select the movement they valued most. Seven movements (student-related, labor, environmentalist, indigenous rights, sexual diversity, pro-life or anti-abortion, or antidelinquency movements), were offered, with an option to specify an unlisted movement. Two additional movements were offered in wave three (feminist movements and movements supporting pension-system change). The following questions were asked in relation to this most valued social movement.

Norms of Close Networks

Participants' perceptions of their close social networks' participation in social movements were measured with two items, measuring participation of their friends and family respectively. After indicating the social movement which they themselves valued, participants were asked to indicate how frequently over the past 12 months members of their family/friends had participated in the movement. Answers were given using a 5-point scale: 1 (*never*), 2 (*almost never*), 3 (*sometimes*), 4 (*frequently*), and 5 (*very frequently*). These two items were averaged (Pearson's r = .60(W1), .56(W2), .55(W3)).

Participation in Social Movements

To measure respondents' participation, they were asked to indicate how frequently over the past 12 months they had participated in their valued social movement. Answers were indicated using the same 5-point scale.

Group Efficacy

A single item measured how efficacious participants perceived their valued social movement to be. Specifically, they were asked to rate the extent to which they agreed that "The actions and protests of this movement can generate social change." Responses were rated on a 5-point scale: 1 (*completely disagree*) and 5 (*completely agree*).

Results

Descriptive Statistics

Means, standard deviations, and correlations between measurements across waves are shown in Table 1. Participants rated their own social-movement participation and those of their close social networks as consistently infrequent across waves, but engagement in valued social movements was rated as moderately efficacious. Although the means of the participation and norm variables were low, there was substantial variability in responses. Relationships between each measurement of the constructs across time were expectedly positive and significant, ranging between r = .12 and .42.

To examine longitudinal relationships between social norms and social-movement participation across the three time points, as well as the mediation of these relationships by group efficacy,

Table 1. Descriptive Statistics and Correlations

	Range	*M*	*SD*	*N*	rT1–T2	rT2–T3	rT1–T3
Norms							
T1	1.0–5.0	1.80	1.02	1845	.33***	.35***	.29***
T2	1.0–5.0	1.66	.91	1401			
T3	1.0–5.0	1.82	.97	2206			
Participation in Social Movements							
T1	1.0–5.0	1.60	1.02	1850	.41***	.42***	.32***
T2	1.0–5.0	1.60	1.00	1402			
T3	1.0–5.0	1.68	1.03	2214			
Group Efficacy							
T1	1.0–5.0	3.81	.76	1839	.13***	.18***	.12***
T2	1.0–5.0	3.83	.83	1400			
T3	1.0–5.0	3.96	.75	2196			

***$p < .001$.

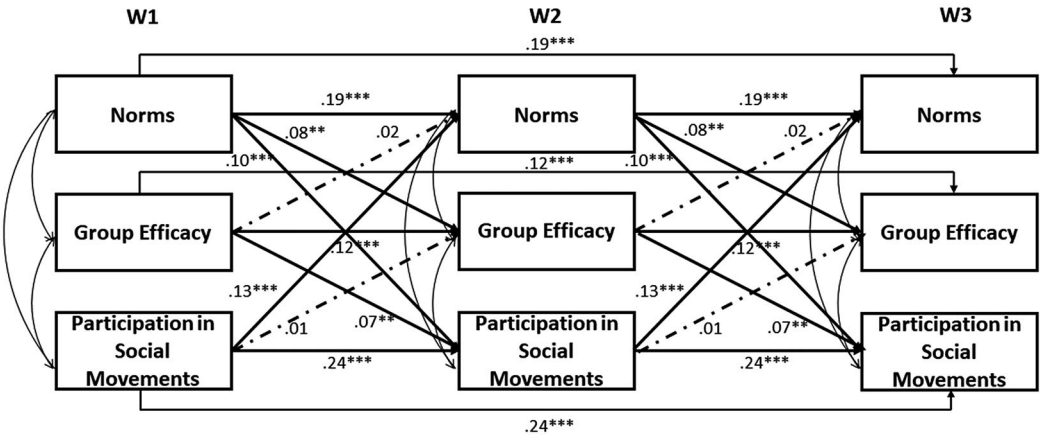

Figure 1. Full longitudinal bidirectional model. **$p < .01$; ***$p < .001$. Full longitudinal bidirectional model showing the mediation of the relationship between perceived descriptive norms and social-movement participation over time, via group efficacy. ($N = 3328$): $\chi^2(18) = 41.504$, $p = .001$; CFI = .989; RMSEA = .020; SRMR = .021. Unstandardized coefficients were reported; the dotted lines show nonsignificant paths. Coefficients for nonsignificant paths or within-time covariates were not included. Covariates were all positive and significant (ranges: .12 to .68 wave 1, .07 to .48 wave 2, .07 to .47 wave 3).

a cross-lagged panel model was employed using robust maximum-likelihood estimation in Mplus version 8.2 (Muthén & Muthén, 2017). As standardized estimates can result in inaccurate parameter estimates and standard errors, unstandardized parameter estimates are reported throughout (Cole & Maxwell, 2003). The model demonstrated good fit ($\chi^2(18) = 41.504$, $p = .001$; CFI = .989; RMSEA = .020; SRMR = .021, see Figure 1, Table 2). Supporting Hypothesis 1, perceptions of close networks' participation in social movements predicted a change in respondents' own participation in subsequent waves ($b = .10$, $p < .001$). Consistent with Hypothesis 2, greater perceived frequency of close networks' participation predicted an increase in group efficacy over time ($b = .08$, $p = .001$), which in turn predicted increased participation in social movements over time ($b = .07$, $p = .009$). In addition to these component paths, the index of this indirect effect through group efficacy was also significant ($b = .01$, $p = .039$, 95%CI [.000, .011]).

In addition, a recursive direct relationship between perceived norms and participation in social movements was found. Not only did perceived close networks' participation predict respondents'

Table 2. Estimated Paths and Significance Values for the Fully Constrained Bidirectional Model

Equated Paths				95% Confidence Interval	
Predictor	Outcome	*b*	*p*	Lower Limit	Upper Limit
Norms	Norms	.190	<.001	.155	.224
Group efficacy	Group efficacy	.119	<.001	.079	.159
Participation in social movements	Participation in social movements	.236	<.001	.202	.271
Norms	Group efficacy	.083	.001	.034	.131
Norms	Participation in social movements	.104	<.001	.057	.151
Group efficacy	Participation in social movements	.067	.009	.017	.116
Group efficacy	Norms	.016	.531	−.033	.064
Participation in social movements	Norms	.133	<.001	.088	.179
Participation in social movements	Group efficacy	.012	.609	−.034	.057

Note: Unstandardized estimates. As paths from T1 to T2 and T2 to T3 are equated, unstandardized coefficients, *p*-values, and confidence intervals are equal across time.

own participation over time, but simultaneously, participation significantly predicted a change in perceived norms ($b = .13$, $p < .001$). However, the reverse indirect effect of participation on social norms through group efficacy was not significant ($b = .00$, $p = .695$, 95%CI [−.001, .001]), and neither were the component paths from participation to group efficacy, nor from group efficacy to social norms (both $p > .05$). Therefore, although the relationship between norms and participation in social movements is recursive in nature, the indirect effect via group efficacy is unidirectional, with efficacy mediating only the forward relationship between norms and social-movement participation, rather than the reverse relationship.

These results did not substantially differ when the 1519 "refreshed" participants were excluded (see Appendix S2 in the online supporting information). This points to the stability of estimates using full-information robust maximum likelihood, and the entire sample was thus retained. We additionally ran the model including age and level of education as covariates. As controlling for these variables did not affect the pattern of results, they were not included in the final model (see Appendix S3 in the online supporting information).

In the model reported above, autoregressive and equivalent paths are constrained to be equal in magnitude across the three waves of study. These path constraints did not substantially reduce the model fit, which indicates satisfaction of the assumption of stationarity, an important assumption for longitudinal designs testing mediation (see Cole & Maxwell, 2003). A systematic testing of stationarity is presented in Appendix S1 (see Table S1.1 in the online supporting information).

To provide a more thorough examination of the bidirectionality of the relationship between social norms and participation in social movements, additional models were tested which systematically examined and compared the hypothesized forward paths (from social norms to participation) and reverse paths (from participation to social norms) in separate models before combining them in a bidirectional model. These models, as well as model comparisons, are outlined in the online appendices (see also Tables S1.1 and S1.2 of Appendix S1 in the online supporting information).

Discussion

The findings contribute to the literature on normative influence by illustrating that descriptive norms from close social networks such as friends and family are positively related to change in social-movement participation across time, and demonstrating that this relationship is mediated by group efficacy. While some previous research has examined the influence of social norms on political behaviors and behavioral intentions (Glynn et al., 2009; Louis et al., 2005), many tend to measure injunctive norms, which illustrate that behavior is approved by others, rather than descriptive norms

as used in the current study, which describe others' typical behavior. Previous literature also tends to examine broader groups rather than proximal groups such as friends and family. Although injunctive norms are often considered stronger and more reliable predictors of behavior (e.g., Cialdini, Reno, & Kallgren, 1990, Study 4; Reno, Cialdini, & Kallgren, 1993), Glynn et al. (2009) suggest that descriptive norms may be equally influential when they are perceived from important proximal groups such as friends and family. Furthermore, according to van Zomeren et al.'s (2004) findings on emotional social support, where perceiving others' appraisal of a situation as unfair predicted collective action through group-based anger, we may expect injunctive norms to facilitate affective responses to injustice, rather than efficacy beliefs. It may also be the case that injunctive norms are inferred from the observation of descriptive norms, in which case perceived injunctive norms may in fact underlie the effects of descriptive norms (González et al., 2020). The current study presents a robust examination of the longitudinal influence of descriptive norms from close social networks and provides one of the first demonstrations that the perceived participation of friends and family can significantly predict change in social-movement participation over time.

The current research also extends normative influence literature by testing the often-neglected indirect effect of social norms on social-movement participation. To the authors' knowledge, this study presents the first examination of the mediating role of group efficacy in the relationship between social norms and participation in social movements. With this significant indirect effect, we demonstrate, like Louis et al. (2005), that perceived norms can be agentic, encouraging beliefs about the efficacy of participation, rather than simply passively influencing the adoption of normative behavior. Unlike Louis et al. (2005), who tested injunctive norms of a distal Anglophone ingroup and cost-benefit evaluations, we demonstrated that descriptive norms from close social networks predicted the perceived efficacy of participation and thereby influenced participation in social movements. While van Zomeren et al. (2004) showed that perceptions of the willingness of broader groups to engage in future hypothetical action increases group efficacy beliefs, here we illustrate that friends and family's actual past participation can also provide instrumental social support and enhance perceptions of group efficacy.

A notable finding is the apparent bidirectionality of the relationship between social norms and participation in social movements. Decades of research on normative influence generally assumes that perceived norms predict behavior, rather than the reverse. That participation in social movements simultaneously influenced perceptions of descriptive norms longitudinally may seem a surprising finding. One possible explanation is that respondents' own participation acted as normative influence for the subsequent engagement of their friends and family. One's frequent participation in social movements encourages others to participate more frequently, which in turn reinforces one's own participation. As such, this may explain how social movements gain momentum over time. An alternative explanation is that of social projection, whereby individuals assume that members of their ingroups share similar attitudes and behaviors as themselves. This has been shown with regard to social norms about intergroup attitudes (Thijs & Verkuyten, 2016). Thus, respondents may have projected their own participation frequency onto their friends and family, inflating their perceptions of social norms as their own participation increased over time. In order to distinguish between these two explanations, future studies may wish to replicate this research using norms from a distal normative referent group on whom respondents are unlikely to exert perceptible influence, such as the broad group of other Chileans.

Interestingly, the longitudinal indirect effect of normative influence through group efficacy was not bidirectional, but unidirectional, such that it mediated the forward relationship between norms and social-movement participation, and not the reverse path. This is perhaps unsurprising as group efficacy is an internal psychological belief which may not have been expressed to respondents' friends and family, and so could not have influenced their participation in social movements.

Considering some inconsistent findings of previous literature on the relationship between group efficacy and collective action (e.g., Osborne, Yogeeswaran, & Sibley, 2015; Thomas et al., 2020), it seems worthwhile to expand models such as SIMCA to include additional factors which may influence group efficacy. The SIMCA model, while an undoubtedly powerful tool for understanding a variety of collective actions, may not be all encompassing. Considering the current study's findings, incorporating perceived norms from a variety of sources may serve as an important addition to models of collective action.

It is worth acknowledging that *group* efficacy may not be the only conceptualization of efficacy with the potential to be enhanced by social norms. Both individual efficacy and participative efficacy have also been shown to predict collective action. The participation of close social networks in social movements is closely aligned with the notion of instrumental social support, which, as van Zomeren et al. (2004) illustrate, can influence a sense of collective empowerment to achieve common goals. Social norms, however, may also predict efficacy beliefs on an individual level. Louis et al. (2005) demonstrated that social norms predict the cost-benefit expectancy-value calculations about intergroup behavior for the individual actor. Therefore, social norms can also have the potential to influence personal expectations of one's behavior. Further study should examine whether norms of close social networks may also influence individual and participative conceptualizations of perceived efficacy.

It should be noted that the present study did not assess one particular social movement, but instead, in each wave participants were asked to think about a social movement which they valued most and responded to subsequent questions with reference to that movement. As such, some participants responded with respect to different movements in each wave. This would suggest that perceiving friends and family as participating in one valued social movement increases the perceived efficacy of participation in other movements, which in turn increases the frequency of participation in other movements.

Louis, Amiot, Thomas, and Blackwood (2016) illustrated a related phenomenon, where larger activism networks predicted increased activism in other domains over time. Engaging in one movement, such as peace activism, was associated with greater cross-domain participation, particularly for movements which share similar values, such as the human rights and environmentalist movements. Similarly, our findings point to a general effect of social norms, whereby perceiving the participation of close social networks does not only affect behavior in one specific domain, but also transfers to other relevant domains. In this case, the perception of friends and family's participation in one social movement influences efficacy beliefs and participation in social movements in general. This may reflect the observation of Somma (2017) that many of the social movements in Chile share common underlying grievances.

Of course, there may be differences in the extent to which social norms and group efficacy relate to different social movements. Certain movements may garner more or less support from others and inspire greater or lesser hope for social change. It may also be that normative influence on participation in movements which relate to particular groups, such as feminist and indigenous rights movements, may be impacted by the gender and ethnicity of the source of the norm. Although comparisons between social movements were beyond the scope of the current study, future research may wish to investigate whether normative influence, and the role of group efficacy, may be stronger for particular types of social movements.

We also acknowledge that there are likely other mechanisms of the influence of social norms on social-movement participation, which do not focus on efficacy beliefs. The SIMCA model, for example (van Zomeren et al., 2008), includes additional variables with well-substantiated effects on collective action tendencies: social identification and perceived injustice. It is conceivable that perceiving the participation of friends and family in a social movement may increase one's identification and sense of belonging with that movement, facilitated by processes of common ingroup

identification (Gaertner et al., 2000). Similarly, norms may also legitimize perceptions of injustice. These processes, however, are likely to be specific to one particular social movement, rather than participation in general, which was assessed in the current study. As it is possible that respondents completed the questionnaires with respect to different movements in different waves, group efficacy was considered to have most potential to generalize across social movements of different types. It would be pertinent to conduct further research which examines the mediating role of group efficacy in normative influence on participation in one particular social movement, as well as research which examines potential mediations of this influence by other mechanisms, such as social identification and perceived injustice.

Lastly, it should also be noted that there have been recent advancements in the analysis of longitudinal processes using cross-lagged panel models. Among them, the Random-Intercept Cross-Lagged Panel Model (RI-CLPM; Hamaker, Kuiper, & Grasman, 2015) was designed to account for bias in the cross-lagged relationships of constructs with trait-like stability. Although a RI-CLPM was considered for the current study, the traditional cross-lagged panel model was ultimately used, as the constructs are not considered to demonstrate substantial trait-like stability. Participation in social movements, and participation of close social networks, reflect behaviors that are influenced by a changing political context. Group efficacy, although it may partly be influenced by some underlying trait-like construct, can also be influenced to a large extent by contextual factors such as the political climate, government responses to large-scale protest, and indeed, social norms. Thomas and Louis (2014), for example, illustrate that when the social climate was perceived not to be corrupt, group efficacy was enhanced by reading about nonviolent protests, rather than violent protests, and that corruption undermined group efficacy of nonviolent protest. This indicates that the stability of group efficacy, similar to that of norms and participation, may not predominantly be that of a trait-like nature, and as such, a RI-CLPM was not considered necessary for the purposes of this study.

Conclusions

As mass social movements continue to gain international attention, it is imperative to investigate not only local contextual factors which motivate the rise in participation over time, but also the psychological processes which underlie these factors. This research provides a substantial contribution towards this end by presenting an initial longitudinal examination of the direct and indirect influences of norms of close social networks on the change in the frequency of social-movement participation of a nationally representative sample of Chilean adults.

Understanding longitudinal normative influences of social-movement participation may prove central in determining how mass protest can mobilize rapidly in a given context and spread across time and region. Social media platforms, through which people engage with multiple intersecting social networks, are important hubs for the exchange of normative information about family, friends, and members of wider institutions. Sharing one's engagement with activism, or expressing beliefs, hopes, and intentions for social change, may be a powerful mobilizing influence to ignite the future participation of others in one's network. Furthermore, broader media representations of protests may also facilitate further activism by illustrating a descriptive norm of participation and indirectly promote collective empowerment. By further exploring and utilizing such influences, we may be able to foster collective participation to overcome shared disadvantage in areas which see little political engagement, or predict when new outbreaks of collective action may emerge.

In order to fully understand the social impact of collective action, we must understand not only the driving social pressures on individuals' decisions to engage in activism, but also the psychological consequences of this pressure. Furthermore, as the current research demonstrates, studies which examine only cross-sectional or unidirectional relationships may overlook the nuanced dynamics of social-movement participation. In short, further investigation of the psychological mechanisms of

normative influence on collective participation across time can provide the means to a more complete understanding of the motivating forces underlying political and social engagement in society.

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Supporting Information

Additional supporting information may be found in the online version of this article at the publisher's web site:

Appendix S1. Unidirectional Forward and Reverse Models, with Measurement Invariance Tests
Table S1 .1. Fit indices of Longitudinal Cross-Lagged Models
Table S1 .2. Significance of the Mediation Effects

Appendix S2. Bidirectional Cross-Lagged Panel Model Excluding 'Refreshed' Sample
Table S2 .1. Estimated Paths and Significance Values for the Model Excluding 'Refreshed' Sample

Appendix S3. Bidirectional Cross-Lagged Panel Model with Age and Education as Covariates
Table S3 .1. Estimated Paths and Significance Values for Model Including Age and Education as Covariates