

GROUP INTERACTION AND MOBILIZATION 1

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Mobilizing Cause Supporters through Group-Based Interaction

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Collective action expresses group-based identities, formed by supporters seeking to further particular social causes. While the development of groups linked to action necessitates *interaction* amongst supporters, little research has examined *how* these groups form. Utilizing responses of supporters who participated in one of 29 action-planning sessions, this research presents an initial attempt to identify the ingredients important to this process. It shows that to the extent that the actions agreed on in the course of group interactions was seen as capable of making a difference (action efficacy), and worthy of public expression (action voice), supporters' group-based identification was enhanced. This in turn increased their willingness to engage in collective action. Practical implications and avenues for future research to understand the mobilization process are discussed.

Key words: social identity, collective action, social movements, opinion-based groups, group formation

Mobilizing Cause Supporters through Group-Based Interaction

People coming together to fight for a cause they believe in has been a catalyst for a range of important achievements. On a large scale, these include women gaining the right to vote and African Americans securing civil rights, and on a smaller scale, preventing the logging of an old-growth forest or overdevelopment in a coastal area. However, even when there is strong support for a cause, collective action is not inevitable, and people are often unable to band together effectively to voice their concern collectively (McCarthy & Zald, 1977). In this paper, we argue that mobilizing cause supporters requires their development of *opinion-based groups* – social identities based on support for action to promote valued social causes (for reviews, see McGarty, Bliuc, Thomas, & Bongiorno, 2009; Thomas, McGarty, & Mavor, 2009a).¹ As *interaction* is critical to the formation of this type of group, this research investigates the elements of interaction that are likely to be helpful to achieving this end. This focus is important because despite social identity's central role in motivating collective action, very little research has explored *how* the groups that are involved in it are formed (van Zomeren, Leach, & Spears, 2012; van Zomeren, Postmes, & Spears, 2008, p. 523). To investigate this process, this research was designed as part of a real-world effort to drive local action on global warming and involved bringing participant supporters together to plan action. Using advanced statistical techniques, outcomes from supporters' interactions were modeled, and help to shed light on the processes underlying the formation of opinion-based groups.²

Social Identity's Central Role in Collective Action

The role of social identity in coordinated social action has been underlined by research in the social identity tradition (Tajfel, 1981; Tajfel & Turner, 1986; Turner, 1999). This demonstrates that social identities are powerful guides to action because social behavior is, to a large extent, driven by the beliefs and norms of the groups to which people belong (Buchan et al., 2011; Drury & Reicher, 2005; Reicher, Cassidy, Wolpert, Hopkins, & Levine, 2006; Simon et al., 1997; for a meta-analysis, see van Zomeren et al., 2008). In seeking change related to valued social causes, the development of social identities that are consistent with this goal can have socially transformative effects: uniting otherwise isolated supporters of a cause and motivating and informing their action in support of that cause. It is this group-based definition of collective action that provides the focus for the current research.

On a social psychological level this form of action can be distinguished from instances where individuals, based on their unique experiences, histories, and/or knowledge of particular social causes, act in line with their advancement (e.g., where, over a prolonged period of time, a supporter of action to prevent global warming writes letters urging Members of Parliament to act). While the impact of individual actions can be important, to the extent that they remain an expression of *personal* rather than *social* identities, their reach, and therefore their capacity to provoke the social changes desired, is likely to be limited (Haslam, Reicher, & Platow, 2011; Reicher, 1996; Reicher et al., 2006; Tajfel & Turner, 1986).

Social Identities Based on Disadvantaged-Group Membership

Traditionally, the group memberships that have been examined in the context of collective action are those that can provide the basis for a shared experience of injustice, such as being a woman, a member of an ethnic minority, or a homosexual (Tajfel & Turner, 1986; for a review, see van Zomeren et al., 2012; for a meta-analysis, see van Zomeren et al., 2008). However group-based disadvantage is only one basis for collective action, and even in cases where it is, disadvantaged-group members often disagree about the necessity of change or the forms of action that should be pursued to help bring it about (as evidenced in the history of the women's movement in the United States, Buechler, 1990). Accordingly, identification as a member of a disadvantaged group (e.g., as a woman, or a homosexual) has been shown to be a relatively weak predictor of (related) collective action (for a meta-analysis, see van Zomeren et al., 2008). Moreover, supporters of such causes are not necessarily restricted to members of the disadvantaged group (Iyer, Schmader, & Lickel, 2007; Mallett, Huntsinger, Sinclair, & Swim, 2008; Wiley, Srinivasan, Finke, Firnhaber, & Shilinsky, 2013; for reviews, see Haslam & Reicher, 2012; McCarthy & Zald, 1977; Subašić, Reynolds, & Turner, 2008; Thomas, et al., 2009a), highlighting problems with this traditional definition of collective action participation in the literature (see Becker, 2012, for an extended definition).

Politicized Identities

Identification with a social-movement organizations (e.g., the feminist movement, gay activist movement, Simon & Klandermans, 2001), has been shown to provide a much stronger basis for collective action than identification as a disadvantaged group member (Kelly & Breinlinger, 1995; Simon et al., 1997; for a meta-analysis, see van Zomeren et

al., 2008). However, this type of social identity can only provide a basis for collective action where a social-movement organization *already* exists. Moreover, while politicized identities may be highly predictive of collective action, they may not be necessary, considering that people can and do engage in collective action without specifically identifying themselves as activists, or as members of (particular) social-movement organizations (Buechler, 1993).

Opinion-Based Group Identities

As a result of such observations, researchers have argued for the importance of opinion-based groups as a basis for collective action (Bliuc, McGarty, Reynolds, & Muntele, 2007; McGarty et al., 2009). Defined as groups that form around a shared set of opinions or beliefs relating to taking action to change (or preserve) elements of a society, they may form to further any type of social cause, from improving the position of women in society, to obstructing the building of a new road, to preventing a convicted pedophile from moving into a particular neighborhood after they are released from prison. While over time, opinion-based groups may develop into social-movement organizations (as with the women's movement), they need not do so to provide a strong basis for collective action (helping to explain small-scale community actions). Nevertheless, the existence of such groups, and the collective action they represent, cannot be taken for granted and for this reason it is instructive to investigate how their development is facilitated by supporters' interactions. It is this goal that provides the focus for the current research.

The Formation of Opinion-Based Groups

Consistent with sociological accounts of *action mobilization* (e.g., Klandermans, 1997; Klandermans & Oegema, 1987; McCarthy & Zald, 1977), our focus here is on the process of translating the potential created by *existing* sympathy for a cause into a willingness to take action to further that cause. This sympathy can result from exposure to awareness-raising campaigns (e.g., that draw attention to the threat posed by global warming), or direct knowledge of, or involvement in, negative experiences or events (e.g., natural disasters, the global financial crisis). Regardless of how support for a social cause develops, categorization of oneself and others as cause supporters provides a necessary precursor to the emergence of opinion-based groups. Informed by theorizing in the self-categorization tradition (Abrams, Wetherell, Cochrane, Hogg, & Turner, 1990; Postmes, Haslam, & Swaab, 2005; Spears, Lea, & Lee, 1990; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), this is because recognition of shared support for a cause can provide a basis for a collection of individuals to work together to develop a sense of ‘us’, that is, to create a *collective* understanding of what it is to be a supporter of that cause.

Interaction

Where there are members of a population who are sympathetic to a particular cause, *interaction* between them thereby provides the key mechanism through which recognition of common cause can be transformed into a basis for a group (Haslam, Eggins, & Reynolds, 2003; Lyons & Kashima, 2003; Peters & Kashima, 2007; Postmes, Haslam, et al., 2005; Postmes, Spears, Lee, & Novak, 2005; Smith & Postmes, 2011). For collective action to emerge, it follows that interaction between supporters should be focused on the type action that should be taken to help further that cause. In this way,

recognition of shared support for a cause occurs in a context where norms of behavior consistent with taking action can be developed (Reicher & Haslam, 2006; for a review, see Reicher, Haslam, & Hopkins, 2005). Research has already demonstrated that (action-oriented) interaction amongst cause supporters increases opinion-based group identification and collective-action intentions (when compared to a no-interaction control, Thomas & McGarty, 2009). What is yet to be established is the specific *elements* of those interactions that are helpful to forming this type of group.

Based on relevant theorizing and research within the norm-formation and collective-action literatures, and as shown in Figure 1, three interaction ingredients are predicted to be important to forming opinion-based groups linked to collective action: first, that supporters agree over the action that should be taken (action consensus); second, that they develop a belief that their actions are likely to be effective (action efficacy); and third, that they believe that their ideas are worthy of public expression (action voice). As these are central to our group-formation predictions, it is instructive to consider each in turn.

Action consensus. The process through which supporters strive to reach an agreement over the form of action to pursue is one of *action consensus*. Previous theory (Haslam et al., 1998; Postmes, Haslam, et al., 2005; Reicher et al., 2005; Turner et al., 1987) and research (Haslam et al., 1998; Reicher & Haslam, 2006; Smith & Postmes, 2011) has confirmed that forming a consensus is important to informing and motivating group action. Thus, where supporters' interactions lead them to reach an agreement over how to further their cause (e.g., by circulating a petition, or organizing a strike or a rally),

their sense of cohesion as a group is predicted to increase, along with their motivation to engage in pro-cause action. On the other hand, where supporters have diverging views about the best way forward and these cannot be resolved, their sense of connection to other supporters and action-relevant norms of behavior may be undermined.

Action efficacy. The development of a belief amongst supporters that the actions they agree to will produce the social changes desired is referred to as *action efficacy*. As action efficacy concerns beliefs about the efficacy of the strategies a group develops, it closely relates to collective efficacy, defined more generally as a belief that together, supporters of a cause will be able to achieve their goals (Bandura, 1997). Meta-analytic and correlational evidence shows that collective efficacy is positively related to group identification (including opinion-based group identification) and an important predictor of collective action in a range of different circumstances (Hornsey et al., 2006; Stewart, Latu, Branscombe, & Denney, 2010; Stürmer & Simon, 2004; Thomas, Mavor, & McGarty, 2012; van Zomeren, Leach, & Spears, 2010; van Zomeren, Spears, Fischer, & Leach, 2004; for a meta-analysis, see van Zomeren, et al., 2008). Clarifying their *causal* relationship in the specific case of collective action to overcome group-based disadvantage, recent experimental evidence shows that collective efficacy can help to motivate action by increasing identification as a member of a disadvantaged group (van Zomeren, Leach, et al., 2010). Applying these insights to the role of action efficacy here, it is expected that where supporters' interactions lead them to develop strategies seen as capable of producing the social changes desired, their formation of opinion-based groups will be facilitated. Alternatively, where supporters communicate a sense that the problem

at hand is intractable and there is little their actions will do to change the status quo, identification with other supporters and commitment to take action will be weaker.³

Action voice. The process whereby supporters come to believe that the ideas and strategies they agree to are worthy of public expression is one of *action voice*. Previous research has shown that collective action can be motivated by supporters' desire to communicate valued social identities, and that this is separate from beliefs that taking action will produce the social changes desired (Drury, Cocking, Beale, Hanson, & Rapley, 2005; Drury & Reicher, 2005, 2009). In this way, group formation may be facilitated through its ability to *empower* supporters to express important beliefs and ideals – ideals they may not feel capable of expressing alone. Thus, where supporters establish a positive value for their ideas and strategies, such that they are seen to be worthy of public expression, their identification as opinion-based group members and intentions to take action should be facilitated. On the other hand, where supporters communicate a sense that their ideas are not worthy of being publicly expressed, their opinion-based group identification and action intentions are likely to be compromised.

Opinion-based group identification

Through the process of being involved with others in deciding upon the actions that should be pursued and having the opportunity to form bonds with like-minded others, this new opinion-based group identity can be more easily integrated into supporters' own self-concept, thereby allowing it to become a genuine guide for their future action (cf. Haslam et al., 2003; McGarty et al., 2009; Postmes, Spears, et al., 2005; Reicher & Haslam, 2006; Smith & Postmes, 2011). Based on the emergence of this,

participating in coordinated action becomes possible, as supporters have developed both the (collective) knowledge of the type of action that should be taken, as well as the sense of togetherness that helps them feel empowered to act.

Collective-Action Intentions

Having helped to define the content of the opinion-based group, supporters' motivation to live out the meaning of this new group-based identity will be enhanced. When a relevant opportunity or cue to take action is presented, supporters will be more compelled to act on that cue. That is, they will feel more committed to participate in collective action to help further that cause, as taking action is now a relevant part of their social identity as a supporter.

Overview of Studies and Hypothesis

The present research incorporates three studies conducted at the same university, and designed as part of a real-world effort to drive local action to address the threat posed by global warming (IPCC, 2007). For each study, participant supporters were asked to plan action with other supporters that could be used to help further that cause, with strategies to be passed on to relevant officials in the event that supporters agreed. There were two main difference between the studies: (i) whether participants were given information about the issue of global warming, including its causes and how they can be addressed; and (ii) the specificity of directions provided, including about the goals supporters were to focus on, and the type and number of strategies they were to develop. These differences were most clear between Study 1 (no information about global warming/less specific directions) and later studies (information about global

warming/more specific directions). Analyses found no effect of this condition difference³ (see Appendix for means, standard deviations and correlations between measures for each study) so the three studies were combined and group formation predictions tested using a multilevel structural equation model, with participants nested within groups. It was hypothesized that the group-based processes of action consensus, action efficacy, and action voice would each increase supporters' intentions to engage in collective action, by facilitating their formation of opinion-based group identities.

Method

Participants

One hundred and fourteen participants took part in 29 groups with between 3 and 5 participants in each group.⁴ There were 40 participants in Study 1 (9 groups, 50% women: $M_{\text{age}} = 22$ years), 40 participants in Study 2 (10 groups, 60% women, $M_{\text{age}} = 25$ years), and 34 participants in Study 3 (10 groups, 79% women, $M_{\text{age}} = 21$ years). The majority of participants were born in Australia (Study 1, 70%; Study 2, 58%; Study 3, 53%), and had an English-speaking background (Study 1, 83%; Study 2, 85%; Study 3, 82%).

Materials and Procedure

Flyers were handed out to prospective participants on a university campus, recruiting people on the basis of their concern about global warming and their willingness to develop locally implementable strategies to reduce its impact. Participants who presented at the specified location on campus were welcomed by the research facilitator

(the same person in all studies), and taken into a room with other supporters and seated around a table with a digital recorder placed in the middle.

Pre-action planning questionnaire. After completing a consent form, participants' self-categorization as supporters of the cause was checked (1 item: "Please indicate your stance on global warming by ticking the appropriate box: I do support greater efforts to stop global warming/I do not support greater efforts to stop global warming"). Demographic items (i.e., Australian born, English as first language) were also measured. As some participants in Study 1 commented that they would have liked more information about the causes of global warming to inform their discussions (e.g., "...Found [discussion] stagnated at points due to lack of knowledge..."), for Study 2 and 3, the pre-action planning questionnaire also provided participants with a short description of the specific causes of global warming and potential future consequences associated with failures to reduce carbon emissions. Participants in Studies 2 and 3 were also provided with some additional motivating information entitled "Think global, act local". This emphasized that changing local practices could have a positive flow-on effect around the country.

Action-planning materials. After they had completed the pre-planning questionnaire, the facilitator gave participants a sheet of lined paper, including the instructions for their group discussions and space to write down their ideas, before leaving them for up to 30 minutes to complete the action-planning task. In Study 1, participants were asked to write down their groups' recommendations for strategies that could be implemented on the university campus and more generally in their local region,

to help stop global warming. As some participants in Study 1 commented that their discussions had become too focused on large-scale issues (“I think we got a little side tracked and did not focus enough on the smaller scale eg Perth/campus”), in Study 2 the research leader’s instructions were more specific, asking participants to: (i) focus on how to make their own university the country’s first carbon neutral university; and (ii) to write down three concrete ways to promote this idea, and three concrete things that could be done to help kick-start this process. In Study 3, the research leader’s instructions were identical to those of Study 2, with the exception that half the groups were asked to focus on strategies to help reduce carbon emissions in their local region. Participants in Study 2 and 3 were also provided with a sheet of paper, including 10 examples of ways that individuals and institutions can help to reduce carbon emissions.

To ensure participants understood that they were participating in a real action-planning session, not merely psychology research, the facilitator informed them that they could have their ideas summarized and presented to relevant officials. All agreed to this when asked at the end of the group interaction.

Post-interaction questionnaire. After interaction, participants were asked to complete a series of measures using 9-point Likert-type scales, with appropriately labeled end-points (e.g., 1 = *strongly disagree*, 9 = *strongly agree*). At the beginning of the questionnaire, self-categorization as a supporter of greater efforts to stop global warming was again checked.

Measures. Participants were asked to complete the following measures related to their experience of planning action with other supporters, along with their social identification as opinion-based group members and collective-action intentions.⁵

Action consensus. Five items (three reverse-scored) measured perceptions of consensus within the group (Study 1, $\alpha = .73$; Study 2, $\alpha = .66$; Study 3; $\alpha = .72$: “Was your group able to build a consensus around this issue?”, “How much did the other members of your group agree with you?”, “I do not agree with the ideas put forward by my group on global warming”, “There were issues raised during the discussion which my group was unable to agree on”, “My group was unable to reach a consensus”).

Action efficacy. Measures of group efficacy were adapted from van Zomeren et al. (2004), with three items used in Study 1 ($\alpha = .76$), and to increase measurement accuracy, the addition of a fourth item in Study 2 ($\alpha = .75$) and Study 3 ($\alpha = .89$) relating to group’s strategies (e.g., “I think the strategies our group came up with can make an important contribution to efforts to reduce emissions at a local level”, “I am confident the strategies our group came up with will make an important contribution to efforts to reduce emissions at a local level”, “I feel that together supporters of greater efforts to stop global warming can achieve significant reductions in emissions at a local level”, “Supporting greater efforts to stop global warming will make a difference to emissions at a local level”).

Action voice. Four items measured perceptions that the ideas generated by the group were valued and considered worthy of public expression (Study 1, $\alpha = .88$; Study 2, $\alpha = .70$; Study 3, $\alpha = .78$: “I would like other people to be aware of the issues

discussed by our group”, “The views expressed by my group should be seriously considered by other people”, “The views expressed by my group should be endorsed by other people”, “The views expressed by my group reflect what other people, who have thought about this issue, would say”).

Opinion-based group identification. Twelve items adapted from Cameron (2004, six reverse-scored) were used to measure identification as an opinion-based group member in Study 1 ($\alpha = .89$) and Study 2 ($\alpha = .88$; e.g., “I feel strong ties with other supporters of greater efforts to stop global warming”). In Study 3, 10 items adapted from Leach et al.'s (2008) more recent measures of in-group identification, incorporating items from Cameron (2004), Doosje, Branscombe, Spears, and Manstead (1998), Luhtanen and Crocker (1992) and Ellemers, Kortekaas, and Ouwerkerk (1999) were adapted ($\alpha = .88$; e.g., “I feel solidarity with other people who support greater efforts to stop global warming”).

Collective-action intentions. Five items adapted from van Zomeren et al. (2004) measured collective-action intentions (Study 1, $\alpha = .86$; Study 2, $\alpha = .91$; Study 3, $\alpha = .86$: “I feel committed to engage in future group activities to promote greater efforts to stop global warming”, “I would like to participate in a group action, such as a march or rally, in support of efforts to stop global warming”, “I would like to sign a petition in support of efforts to stop global warming”, “I would like to be involved in some way in a community-based group that aims to promote greater efforts to stop global warming”, “I would like to be involved in a group that speaks out about this issue to other people”)

Additional demographic items (participant gender and age) were included at the end of the questionnaire. The questionnaire took an average of 10-15 minutes to complete. Upon completion, participants were thanked, debriefed, and offered a small reimbursement (AUD\$10) for their time.

Results

Preliminary Analyses

Across studies, all participants indicated that they were supporters of greater efforts to stop global warming, both before and after the action-planning session. The audio-recordings of each of the group interactions were checked, revealing that all participants contributed to the discussion, and that each of the strategies/recommendations put forward were discussed by the group. Table 1 presents means, standard deviations and raw correlations between variables. There were correlations between all variables and in each case mean scores were well above the scale midpoint.

Main Analyses

A multilevel structural equation model created in Mplus 6.1 with grand mean centering was used to estimate regression parameters and indices of model fit, adjusting for the nested design of the research. To obtain scores for direct paths, action consensus, action voice, action efficacy, and social identification were modeled as direct predictors of collective-action intentions. Unstandardized path coefficients for action consensus, action voice and action efficacy are presented in Figure 2. These show that the paths from action consensus and action efficacy to collective-action intentions were significant ($p = .036$ and $p = .025$ respectively), while the path from action voice to collective-action

intentions was not significant ($p = .108$). The path from social identification to collective action was significant ($\beta = .69, p < .001$.)

Group-formation predictions were tested by entering social identification as a mediating variable from action consensus, action voice, and action efficacy to collective-action intentions. This model provided a good fit to the data, with CFI (.95) and SRMR (.05) both within an acceptable range. While RMSEA was somewhat high (.16), this statistic tends to be inflated with small sample sizes (Hu & Bentler, 1999) and was therefore not considered a reliable measure of model fit. Unstandardized path coefficients are presented in Figure 2. These show that the paths from action voice and action efficacy to social identification were significant at $p < .001$, as was the path from social identification to collective-action intentions. The path from action consensus to social identification was not significant ($p = .779$).

To test whether action consensus, action voice and action efficacy interacted in fostering social identity, additional analyses were performed — in particular, to include tests of interaction effects between the three predictors. No interactions were significant, indicating that the effects of predictors on social identification were additive rather than multiplicative.⁶

Overall, the results support group-formation predictions but suggest a modified model. They show that action voice, action efficacy, but not action consensus had positive indirect effects on intentions to engage in collective action by facilitating opinion-based group formation. There was also a positive (weaker) direct effect of action efficacy on collective-action intentions. Action consensus had only a positive direct

effect on collective-action intentions. Aside from this finding, overall the results show that the strongest pathways for increasing supporters' intentions to engage in collective action were captured by the proposed group-formation model.

Discussion

The present findings advance an understanding of how *interaction* amongst cause supporters can foster their development of social identities linked to collective action. In this research, supporters of the global warming cause were brought together in groups and invited to reach an agreement over strategies that could be used to help further that cause. The studies were designed to test the hypothesis that the formation of opinion-based groups and resulting collective-action intentions is facilitated by supporters development of action consensus, action efficacy and action voice. Consistent with these hypotheses, to the extent that the group interactions led supporters to generate ideas that were seen as (i) capable of making a real difference (action efficacy) and (ii) worthy of public expression (action voice), identification as an opinion-based group was greater. This in turn provided the strongest pathway to increasing supporters' intentions to take collective action.

Action efficacy was also shown to have a positive (albeit weaker) *direct* effect on supporters' collective-action intentions. This finding suggests that intentions to act in ways that advance a valued social cause are not *necessarily* motivated through the formation of related group-based identities. Indeed for some, believing that collective action can make a difference will be a sufficient motivator of participation (see Stürmer & Simon, 2004, whose dual-pathway model proposes separate cost-benefit and collective

identification pathways to collective action; Stürmer, Simon, Loewy, & Jörger, 2003).

Without ruling out this possible pathway, it is clear from the overall findings that supporters' perceptions of the likely effectiveness of their group's actions (action efficacy), had the greatest impact on their intentions to take action through increasing their identification as opinion-based group members.

Unlike action efficacy, the pathway from action voice to collective-action intentions was fully mediated by opinion-based group identification. This provides compelling evidence that the development of ideas and strategies seen as worthy of public expression facilitates supporters' formation of opinion-based groups linked to action. In other words, that forming a group provides a vehicle through which supporters can be empowered to express ideas and beliefs they may not feel capable of expressing alone (cf. Drury & Reicher, 2009). Findings showing that action efficacy and action voice did not interact in predicting identification also shows that *both* can be utilized as means of forming groups linked to action. This finding for action voice may be especially important for understanding why collective action occurs, even in contexts where the perceived prospect of change (i.e., action efficacy) is low.

In contrast to these findings for action voice, the extent to which supporters agreed over actions to help further the cause (action consensus) was not sufficient to enhance their identification as opinion-based group members. Nevertheless, mean levels for consensus were high, and it is possible that supporters did not have particular difficulty in reaching an agreement over actions that could be used to help further the cause. This may in turn have undermined the perceived value of action consensus as a

basis for building identification. In other contexts, where different groups of supporters hold strongly diverging views about how to further the cause, or where consensus is difficult to achieve, its attainment may well be critical to building a sense of identification. Nevertheless, there was a (relatively weak) path from action consensus to collective action. We propose that in this context, the extent of action consensus functioned as a reminder that decisive action over the cause was needed, and this had some effect on intentions to take part in additional (group-based) activities to help further that cause.

Implications

Previous theory and findings have emphasized social identity's central role in promoting collective action, but have not examined the role of supporters interactions in forming this type of group. A strength of the paradigm employed in the present research was that it drew together real supporters who engaged in real action-oriented interaction, and coupled this with the use of advanced statistical techniques that allow structural equation models to be applied to non-independent (i.e., group-interaction) data. To our knowledge, no other research has modelled the outcome of supporters' action-oriented interactions to understand the role this can play in their formation of opinion-based groups linked to collective action. These research findings thus provide an important complement and extension to existing research findings in the collective action literature based on experimental, cross-sectional, and observational methods.

While face-to-face interactions amongst relatively small groups of supporters were utilized here, there are likely to be a range of different ways that supporters can be

encouraged to interact to achieve similarly positive outcomes. New information and communication technologies have made it possible for action to be coordinated online, and other research has highlighted the potential and actual contributions of these technologies to modern-day instances of collective action (e.g., Ayres, 1999; Fisher, Stanley, Berman, & Neff, 2005; Garrett, 2006; Myers, 1994; Postmes & Brunsting, 2002). Indeed, it seems clear that technology-mediated communication can provide a powerful tool in helping to overcome the social isolation that can otherwise prevent supporters from recognizing that they share a common cause and (collectively) deciding upon the form of action that should be taken (Haslam & Reicher, 2012). Such forms of communication may be particularly relevant in countries where gatherings between supporters of dissident social causes are restricted, but are also likely to be important in modern western democracies, where social isolation is projected to increase further into the future (Kashima et al., 2009).⁷

While it may be critical in the initial stages of mobilization for small groups of supporters to engage in planning action, we do not propose that *all* those who ultimately take part in collective action need to be directly involved in deciding upon the form of action that should be pursued. Existing sympathizers may decide to join in once a core group of supporters have already started (or decided) to take action (Hornsey et al., 2006; Zuo & Benford, 1995). Indeed, observing fellow supporters taking action may help other supporters establish a belief in the appropriateness of publicly expressing those views (action voice) and the likelihood that action will create the social changes desired (action efficacy). Thus, the same group-based processes that contributed to group formation for

supporters involved in the initial planning stages, may also help explain how supporters *not* directly involved in planning action come to identify themselves as opinion-based group members, and thereby, become motivated to act. For the core group of supporters, finding actions that resonate with the greatest number of existing sympathizers is therefore likely to be important for galvanizing wider support (Benford & Snow, 2000; Hewitt & McCammon, 2004).

Limitations and Future Directions

This research was focused on understanding how action-oriented interaction between cause supporters facilitates their formation of opinion-based groups linked to action. What is arguably just as important to understand is how supporters come to plan action in the first place, and the role of organizers or cause leaders is likely to be critical to this process (Boekkooi, Klandermans, & van Stekelenburg, 2011; Haslam & Reicher, 2007; Reicher et al., 2005). Surprisingly, there is very little research into the pivotal role played by leaders in mobilizations efforts (van Zomeren et al., 2012) and a number of factors are likely to assist their engagement efforts. For instance, in the current research, the facilitator's success recruiting supporters to plan action is likely to have been enhanced by: (i) their status as a member of the same university community from which they were recruiting; (ii) their control over space within that institution (which allowed them to organize meeting space); and (iii) their possession of funds to produce related materials (including recruitment flyers and interaction materials). Future research could examine the (relative) importance of these social and economic resources for recruiting supporters, which are similar to those typically utilized by leaders recruiting from within

universities, churches, and other types of community organizations, which have historically provided a strong base from which to mobilize supporters (Fisher et al., 2005; Jenkins, 1983; Klandermans & Oegema, 1987; McCarthy & Zald, 1977, 2001; Oberschall, 1973; Zuo & Benford, 1995).

The present studies were designed to examine how interaction amongst cause supporters contributes to the development of *new* opinion-based groups linked to action. Because these groups did not exist prior to those interactions, it made sense to examine group identification, not as a predictor, but as a mediator of the effects of interaction (i.e., action consensus, action efficacy, action voice) on collective-action intentions. Where future research examines follow-up interactions, or uses members of an *established* opinion-based group, it is possible that group identification will in turn facilitate the emergence of the same components of interaction. That is, over time, these interaction components and group identification are likely to become mutually reinforcing. For those in an established opinion-based group, for instance, identification may thereby facilitate the development of ideas seen as worthy of public expression (action voice), in addition to action voice being a component of interaction that contributes to the formation of these opinion-based groups.

Related to this, it would be useful for future research to employ a longitudinal design, considering that in the world at large, repeated contact is likely to be necessary to build sufficient momentum to action. This type of approach would allow an exploration of the situational factors that are likely to be important to further strengthening (or undermining) supporters' opinion-based group identification and commitment to act.

Such factors could include the attainment of short-term goals, such as organizing a petition or involvement in initial protest actions (Cocking & Drury, 2004; Drury & Reicher, 2000, 2005; for a review see van Zomeren et al., 2012), and reactions of external parties, including those who are sympathetic and antagonist to the aims of the cause (Drury & Reicher, 2000, 2009; Gamson, Fireman, & Rytina, 1982; Simon & Klandermans, 2001).

Here, we were interested in exploring how supporters' interactions can facilitate *action mobilization* – the process through which *existing* sympathy for a cause is translated into a willingness to take action to further that cause. However, it is clear that for many causes, another vital step in the emergence of collective action involves *establishing* cause sympathizers (i.e., the process of *consensus mobilization*, see Klandermans, 1997; Buechler, 1993; van Zomeren et al., 2012). In this prior phase, developing action-related emotions about specific social causes, including fear, anger or hope, is likely to play an important role in motivating involvement in the subsequent *action-mobilization* phase (cf. van Zomeren et al., 2012). By using the global warming cause, the present research capitalized on the prominence this issue had recently gained through (amongst other things) Al Gore's documentary *An Inconvenient Truth*, and Australia's worst drought in 100 years, which was being linked by the (soon to be elected) Federal Opposition Leader with an urgent need to act (Gascoigne, 2008). The fear over the threat posed by global warming that this social and political context had helped generate (Reser & Swim, 2011) no doubt contributed to participants' willingness to be recruited for the purpose of planning local action (see van Zomeren, Spears, &

Leach, 2010 for findings linking fear over climate change with a willingness to participate in collective action). Exploring *how* support for a cause, including action-related emotions, develop (Thomas, McGarty, & Mavor, 2009b) therefore remains another vital avenue for research aimed at understanding the emergence of collective action.

Through using the opinion-based-group concept, the approach to collective-action mobilization employed here recognizes that supporters of particular social causes can come from a range of social backgrounds (Becker, Wright, Lubensky, & Zhou, 2013; Feather, Woodyatt, & McKee, 2012; Iyer et al., 2007; Leach, Iyer, & Pedersen, 2006; Mallett et al., 2008; Wiley et al., 2013). Nevertheless, supporters' memberships in existing social groups are likely to impact on how these groups develop, perhaps especially in cases where collective action seeks to redress group-based disadvantage. While solidarity between those from advantaged and disadvantaged groups (e.g., women, men; aboriginal, non-aboriginal; homosexual, heterosexual) is likely to be important to the ultimate success of such causes (for reviews, see Haslam & Reicher, 2012; McCarthy & Zald, 1977; Subašić, Reynolds, & Turner, 2008), the involvement of advantaged-group members presents its own challenges. This is because their motivations or commitment may be questioned, as well as their capacity or right to speak out over forms of injustice they have not directly experienced. Understanding how these potential conflicts are resolved and an effective alliance between supporters from diverging backgrounds is achieved, therefore presents another vital avenue for future research examining the mobilization process.

Concluding Comment

The current research enhances our understanding of a question that has received very little attention within social psychology — how are the social identities and groups that promote collective action formed? Our findings highlight the elements of *interaction* between cause supporters that are likely to be important, specifically where it leads them to agree over actions perceived as worthy of being publicly voiced and likely to affect the social change desired. While more research into the formation of opinion-based groups is needed, we believe the findings presented here provide valuable insights into what this process involves. Moreover, it is hoped that the research paradigm these findings are based on can be helpful in guiding future research, in times when understanding how to mobilize supporters of significant causes, like global warming, remains vitally important.

References

- Abrams, D., Wetherell, M., Cochrane, S., Hogg, M. A., & Turner, J. C. (1990). Knowing what to think by knowing who you are: Self-categorization and the nature of norm formation, conformity and group polarization. *British Journal of Social Psychology, 29*, 97-119. doi: 10.1111/j.2044-8309.1990.tb00892.x
- Ayres, J. M. (1999). From the streets to the internet: The cyber-diffusion of contention. *The Annals of the American Academy of Political and Social Science, 566*, 132-143.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Becker, J. C. (2012). Virtual special issue on theory and research on collective action in the European Journal of Social Psychology. *European Journal of Social Psychology, 42*, 19-23. doi: 10.1002/ejsp.1839
- Becker, J. C., Wright, S. C., Lubensky, M. E., & Zhou, S. (2013). Friend or ally: Whether cross-group contact undermines collective action depends on what advantaged group members say (or don't say). *Personality and Social Psychology Bulletin, 39*(4), 442-455. doi: 10.1177/0146167213477155
- Benford, R. D., & Snow, D. A. (2000). Framing processes and social movements: An overview and assessment. *Annual Review of Sociology, 26*(1), 611-639. doi: 10.1146/annurev.soc.26.1.611
- Bliuc, A.-M., McGarty, C., Reynolds, K. J., & Muntele, D. (2007). Opinion-based group membership as a predictor of commitment to political action. *European Journal of Social Psychology, 37*, 19-32.

- Boekkooi, M., Klandermans, B., & van Stekelenburg, J. (2011). Quarrelling and protesting: How organizers shape a demonstration. *Mobilization: An International Quarterly*, 16(2), 221-239.
- Buchan, N. R., Brewer, M. B., Grimalda, G., Wilson, R. K., Fatas, E., & Foddy, M. (2011). Global social identity and global cooperation. *Psychological Science*, 22(6), 821-828. doi: 10.1177/0956797611409590
- Buechler, S. M. (1990). *Women's movements in the United States*. New Brunswick, NJ: Rutgers University Press.
- Buechler, S. M. (1993). Beyond resource mobilization? Emerging trends in social movement theory. *The Sociological Quarterly*, 34(2), 217-235.
- Cameron, J. E. (2004). A three-factor model of social identity. *Self and Identity*, 3, 239-262.
- Cocking, C., & Drury, J. (2004). Generalization of efficacy as a function of collective action and intergroup relations: Involvement in an anti-roads struggle. *Journal of Applied Social Psychology*, 34(2), 417-444. doi: 10.1111/j.1559-1816.2004.tb02555.x
- Doosje, B., Branscombe, N. R., Spears, R., & Manstead, A. S. R. (1998). Guilty by association: When one's group has a negative history. *Journal of Personality and Social Psychology*, 75, 872-886.
- Drury, J., Cocking, C., Beale, J., Hanson, C., & Rapley, F. (2005). The phenomenology of empowerment in collective action. *British Journal of Social Psychology*, 44, 309.

- Drury, J., & Reicher, S. (2000). Collective action and psychological change: The emergence of new social identities. *British Journal of Social Psychology, 39*(4), 579-604.
- Drury, J., & Reicher, S. (2005). Explaining enduring empowerment: A comparative study of collective action and psychological outcomes. *European Journal of Social Psychology, 35*(1), 35-58. doi: 10.1002/ejsp.231
- Drury, J., & Reicher, S. (2009). Collective psychological empowerment as a model of social change: Researching crowds and power. *Journal of Social Issues, 65*(4), 707-725. doi: 10.1111/j.1540-4560.2009.01622.x
- Ellemers, N., Kortekaas, P., & Ouwerkerk, J. W. (1999). Self-categorisation, commitment to the group and group self-esteem as related but distinct aspects of social identity. *European Journal of Social Psychology, 29*, 371-389.
- Feather, N. T., Woodyatt, L., & McKee, I. R. (2012). Predicting support for social action: How values, justice-related variables, discrete emotions, and outcome expectations influence support for the Stolen Generations. *Motivation and Emotion, 36*(4), 516-528. doi: 10.1007/s11031-011-9262-5
- Fisher, D. R., Stanley, K., Berman, D., & Neff, G. (2005). How do organizations matter? Mobilization and support for participants at five globalization protests. *Social Problems, 52*(1), 102-121. doi: 10.1525/sp.2005.52.1.102
- Gamson, W., Fireman, B., & Rytina, S. (1982). *Encounters with Unjust Authority*. Homewood, IL: Dorsey Press.

- Garrett, R. K. (2006). Protest in an information society: A review of literature on social movements and new ICTs. *Information Communication and Society*, 9(2), 202-224. doi: 10.1080/13691180600630773
- Gascoigne, T. (2008). Climate Change: "The" Issue in the Australian National Election 2007? *Science Communication*, 29(4), 522-531. doi: 10.1177/1075547008316306
- Haslam, S. A., Eggins, R. A., & Reynolds, K. J. (2003). The ASPIRe model: Actualizing social and personal identity resources to enhance organizational outcomes. *Journal of Occupational and Organizational Psychology*, 76(1), 83-113. doi: 10.1348/096317903321208907
- Haslam, S. A., & Reicher, S. (2007). Identity Entrepreneurship and the Consequences of Identity Failure: The Dynamics of Leadership in the BBC Prison Study. *Social Psychology Quarterly*, 70(2), 125-147.
- Haslam, S. A., & Reicher, S. (2012). When prisoners take over the prison: A social psychology of resistance. *Personality and Social Psychology Review*, 16(2), 154-179. doi: 10.1177/1088868311419864
- Haslam, S. A., Reicher, S., & Platow, M. (2011). *The new psychology of leadership: Identity, influence, and power*. Hove and New York: Psychology Press.
- Haslam, S. A., Turner, J. C., Oakes, P. J., Reynolds, K. J., Eggins, R. A., Nolan, M., & Tweedie, J. (1998). When do stereotypes become really consensual? Investigating the group-based dynamics of the consensualization process. *European Journal of Social Psychology*, 28(5), 755-776.

- Hewitt, L., & McCammon, H. J. (2004). Explaining suffrage mobilization: Balance, neutralization, and range in collective action frames, 1892-1919. *Mobilization: An International Journal*, 9(2), 149-166.
- Hornsey, M. J., Blackwood, L., Louis, W., Fielding, K., Mavor, K., Morton, T., . . . White, K. M. (2006). Why do people engage in collective action? Revisiting the role of perceived effectiveness. *Journal of Applied Social Psychology*, 36(7), 1701-1722. doi: 10.1111/j.0021-9029.2006.00077.x
- Hu, L.-T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55. doi: 10.1080/10705519909540118
- IPCC. (2007). Climate Change 2007: The Physical Science Basis. In S. Solomon, D. Qin, M. Manning, Z. Chen, M. Marquis, K. B. Averyt, M. Tignor & H. L. Miller (Eds.), *Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press.
- Iyer, A., Schmader, T., & Lickel, B. (2007). Why individuals protest the perceived transgressions of their country: The role of anger, shame, and guilt. *Personality and Social Psychology Bulletin*, 33(4), 572-587. doi: 10.1177/0146167206297402
- Jenkins, C. J. (1983). Resource mobilization theory and the study of social movements. *Annual Review of Sociology*, 9, 527-553.

- Kashima, Y., Fernando, J., Bain, P., Haslam, N., Peters, K., Laham, S., . . . Kaufmann, L. (2009). Folk theory of social change. *Asian Journal of Social Psychology, 12*(4), 227-227. doi: 10.1111/j.1467-839X.2009.01288.x
- Kelly, C., & Breinlinger, S. (1995). Attitudes, intentions, and behavior: A study of women's participation in collective action. *Journal of Applied Social Psychology, 25*(16), 1430-1445. doi: 10.1111/j.1559-1816.1995.tb02625.x
- Klandermans, B. (1997). *The social psychology of protest*. Oxford, UK: Basil Blackwell.
- Klandermans, B., & Oegema, D. (1987). Potentials, networks, motivations, and barriers: Steps towards participation in social movements. *American Sociological Review, 52*, 519-531.
- Leach, C. W., Iyer, A., & Pedersen, A. (2006). Anger and guilt about ingroup advantage explain the willingness for political action. *Personality and Social Psychology Bulletin, 32*(9), 1232-1245. doi: 10.1177/0146167206289729
- Leach, C. W., van Zomeren, M., Zebel, S., Vliek, M. L. W., Pennekamp, S. F., Doosje, B., . . . Spears, R. (2008). Group-level self-definition and self-investment: A hierarchical (multi-component) model of ingroup identification *Journal of Personality and Social Psychology, 95*, 144-165.
- Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin, 18*, 302-318.
- Lyons, A., & Kashima, Y. (2003). How are stereotypes maintained through communication? The influence of stereotype sharedness. *Journal of Personality and Social Psychology, 85*(6), 989-1005. doi: 10.1037/0022-3514.85.6.989

- Mallett, R. K., Huntsinger, J. R., Sinclair, S., & Swim, J. K. (2008). Seeing through their eyes: When majority group members take collective action on behalf of an outgroup. *Group Processes & Intergroup Relations*, *11*(4), 451-470. doi: 10.1177/1368430208095400
- McCarthy, J. D., & Zald, M. N. (1977). Resource mobilization and social movements: A partial theory. *American Journal of Sociology*, *82*(6), 1212-1241.
- McCarthy, J. D., & Zald, M. N. (2001). The enduring vitality of the resource mobilization theory of social movements. *Handbook of Sociological Theory*, 533-565.
- McGarty, C., Bliuc, A. M., Thomas, E. F., & Bongiorno, R. (2009). Collective action as the material expression of opinion-based group membership. *Journal of Social Issues*, *65*(4), 839-857. doi: 10.1111/j.1540-4560.2009.01627.x
- Myers, D. J. (1994). Communication technology and social movements: Contributions of computer networks to activism. *Social Science Computer Review*, *12*(2), 250-260. doi: 10.1177/089443939401200209
- Oberschall, A. (1973). *Social Conflict and Social Movements* Englewood Cliffs, N.J.: Prentice-Hall.
- Peters, K., & Kashima, Y. (2007). From social talk to social action: Shaping the social triad with emotion sharing. *Journal of Personality and Social Psychology*, *93*(5), 780-797. doi: 10.1037/0022-3514.93.5.780
- Postmes, T., & Brunsting, S. (2002). Collective action in the age of the internet. *Social Science Computer Review*, *20*(3), 290-301.

- Postmes, T., Haslam, S. A., & Swaab, R. I. (2005). Social influence in small groups: An interactive model of social identity formation. *European Review of Social Psychology, 16*, 1-42.
- Postmes, T., Spears, R., Lee, A. T., & Novak, R. J. (2005). Individuality and social influence in groups: Inductive and deductive routes to group identity. *Journal of Personality and Social Psychology, 89*(5), 747-763. doi: 10.1037/0022-3514.89.5.747
- Reicher, S. (1996). Social identity and social change: Rethinking the context of social psychology. In W. P. Robinson (Ed.), *Social groups and identities: Developing the legacy of Henri Tajfel* (pp. 317-336). Oxford: Butterworth-Heinemann.
- Reicher, S., Cassidy, C., Wolpert, I., Hopkins, N., & Levine, M. (2006). Saving Bulgaria's Jews: An analysis of social identity and the mobilisation of social solidarity. *European Journal of Social Psychology, 36*, 49-72.
- Reicher, S., & Haslam, S. A. (2006). Rethinking the psychology of tyranny: The BBC prison study. *British Journal of Social Psychology, 45*(1), 1-40. doi: 10.1348/014466605x48998
- Reicher, S., Haslam, S. A., & Hopkins, N. (2005). Social identity and the dynamics of leadership: Leaders and followers as collaborative agents in the transformation of social reality. *Leadership Quarterly, 16*(4), 547-568. doi: 10.1016/j.leaqua.2005.06.007
- Reser, J. P., & Swim, J. K. (2011). Adapting to and coping with the threat and impacts of climate change. *American Psychologist, 66*(4), 277-289. doi: 10.1037/a0023412

- Simon, B., & Klandermans, B. (2001). Politicized collective identity: A social psychological analysis. *American Psychologist*, *56*(4), 319-331. doi: 10.1037/0003-066x.56.4.319
- Simon, B., Stürmer, S., Loewy, M., Weber, U., Freytag, P., Habig, C., . . . Spahlinger, P. (1997). Collective identification and social movement participation. *Journal of Personality and Social Psychology*, *74*(3), 646-658.
- Smith, L. G., & Postmes, T. (2011). The power of talk: Developing discriminatory group norms through discussion. *British Journal of Social Psychology*, *50*(Pt 2), 193-215. doi: 10.1348/014466610X504805
- Spears, R., Lea, M., & Lee, S. (1990). De-individuation and group polarization in computer-mediated communication. *British Journal of Social Psychology*, *29*(2), 121-134. doi: 10.1111/j.2044-8309.1990.tb00893.x
- Stewart, T. L., Latu, I. M., Branscombe, N. R., & Denney, H. T. (2010). Yes we can! prejudice reduction through seeing (inequality) and believing (in social change). *Psychological Science*, *21*(11), 1557-1562. doi: 10.1177/0956797610385354
- Stürmer, S., & Simon, B. (2004). Collective action: Towards a dual-pathway model. *European Review of Social Psychology*, *15*(1), 59-99. doi: 10.1080/10463280340000117
- Stürmer, S., Simon, B., Loewy, M., & Jörger, H. (2003). The dual-pathway model of social movement participation: The case of the fat acceptance movement. *Social Psychology Quarterly*, *66*(1), 71-82.

- Subašić, E., Reynolds, K. J., & Turner, J. C. (2008). The political solidarity model of social change: Dynamics of self-categorization in intergroup power relations. *Personality and Social Psychology Review, 12*(4), 330-352.
- Tajfel, H. (1981). *Minimum groups and social categories: Studies in social psychology*. Cambridge: Cambridge University Press.
- Tajfel, H., & Turner, J. C. (1986). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (Rev ed., pp. 33-47). Monterey: Brooks/Cole.
- Thomas, E. F., Mavor, K. I., & McGarty, C. (2012). Social identities facilitate and encapsulate action-relevant constructs: A test of the social identity model of collective action. *Group Processes and Intergroup Relations, 15*(1), 75-88. doi: 10.1177/1368430211413619
- Thomas, E. F., McGarty, C., & Mavor, K. I. (2009a). Aligning identities, emotions, and beliefs to create commitment to sustainable social and political action. *Personality and Social Psychology Review, 13*(3), 194-218. doi: 10.1177/1088868309341563
- Thomas, E. F., McGarty, C., & Mavor, K. I. (2009b). Transforming "apathy into movement": The role of prosocial emotions in motivating action for social change. *Personality and Social Psychology Review, 13*(4), 310-333. doi: 10.1177/1088868309343290
- Thomas, E. F., & McGarty, C. A. (2009). The role of efficacy and moral outrage norms in creating the potential for international development activism through group-

- based interaction. *British Journal of Social Psychology*, 48(1), 115-134. doi: 10.1348/014466608x313774
- Turner, J. C. (1999). Some current issues in research on social identity and self-categorization theories. In N. Ellemers, R. Spears & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 6-34). Oxford: Blackwell.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S., & Wetherell, M. S. (Eds.). (1987). *Rediscovering the social group: A self-categorization theory*. Oxford: Blackwell.
- van Zomeren, M., Leach, C. W., & Spears, R. (2010). Does group efficacy increase group identification? Resolving their paradoxical relationship. *Journal of Experimental Social Psychology*, 46(6), 1055-1060. doi: 10.1016/j.jesp.2010.05.006
- van Zomeren, M., Leach, C. W., & Spears, R. (2012). Protesters as "passionate economists": A dynamic dual pathway model of approach coping with collective disadvantage. *Personality and Social Psychology Review*, 16(2), 180-199. doi: 10.1177/1088868311430835
- van Zomeren, M., Postmes, T., & Spears, R. (2008). Toward an integrative social identity model of collective action: A quantitative research synthesis of three socio-psychological perspectives. *Psychological Bulletin*, 134(4), 504-535. doi: 10.1037/0033-2909.134.4.504
- van Zomeren, M., Spears, R., Fischer, A. H., & Leach, C. W. (2004). Put your money where your mouth is! Explaining collective action tendencies through group

- based anger and efficacy. *Journal of Personality and Social Psychology*, 87(5), 649-664.
- van Zomeren, M., Spears, R., & Leach, C. W. (2010). Experimental evidence for a dual pathway model analysis of coping with the climate crisis. *Journal of Environmental Psychology*, 30(4), 339-346. doi: 10.1016/j.jenvp.2010.02.006
- Wiley, S., Srinivasan, R., Finke, E., Firnhaber, J., & Shilinsky, A. (2013). Positive portrayals of feminist men increase men's solidarity with feminists and collective action intentions. *Psychology of Women Quarterly*, 37(1), 61-71. doi: 10.1177/0361684312464575
- Zaccaro, S. (2003). E-Leadership and the challenges of leading e-teams: Minimizing the bad and maximizing the good. *Organizational Dynamics*, 31(4), 377-387. doi: 10.1016/s0090-2616(02)00129-8
- Zuo, J. P., & Benford, R. D. (1995). Mobilization processes and the 1989 Chinese democracy movement. *Sociological Quarterly*, 36(1), 131-156. doi: 10.1111/j.1533-8525.1995.tb02324.x

Endnotes

¹ This definition of an opinion-based group has parallels with the definition of social movements provided by McCarthy and Zald as: "a set of opinions and beliefs in a population which represents some preferences for changing some elements of the social structure and/or reward distribution of a society" (1977, pp. 1217-1218).

² Examining the (outcome of) small-group interaction has been avoided in the past because conventional statistical techniques required observations to be independent.

³ Analysis was performed which included this condition difference in the multilevel structural equation model. There were no effects of condition on opinion-based group identification, collective-action intentions, or the three process measures of action consensus, action efficacy and action voice.

⁴ However there was one group in Study 3 that consisted of two people.

⁵ Measures of group respect (4 items, e.g., “People listened to my views when I expressed my honest opinion”) and group engagement (4 items, e.g., “The issues raised during the discussion were engaging”) were also examined. Means for these constructs were all well above the scale midpoint. Preliminary analyses revealed that they had no significant effects on opinion-based group identification or collective-action intentions, so they were not included in the final group-formation model.

⁶ An alternative model was also tested, whereby the three process variables of action consensus, action voice, and action efficacy were entered as mediating variables from social identification to collective-action intentions. This model did not provide a good fit to the data: CFI (.70), SRMR (.15) and RMSEA (.33).

⁷ Nevertheless, there are likely to be important differences in effectively facilitating action-oriented interaction through technology as opposed to face-to-face interactions (Zaccaro, 2003).

Table 1.

Means, Standard Deviations and Correlations between Measures

	M	SD	1	2	3	4
1. Action consensus	7.67	1.14	–			
2. Action voice	7.65	1.24	.61	–		
3. Action efficacy	7.98	1.14	.32	.35	–	
4. Social identification	6.45	1.29	.36	.51	.50	–
5. Action intentions	6.85	1.51	.33	.30	.48	.66
<i>N</i>	114					

Note: These are raw correlations that do not incorporate dependence of observations. All $ps < .01$

Appendix

Means, (SDs) and Correlations between Measures for Study 1, Study 2, and Study 3 Respectively

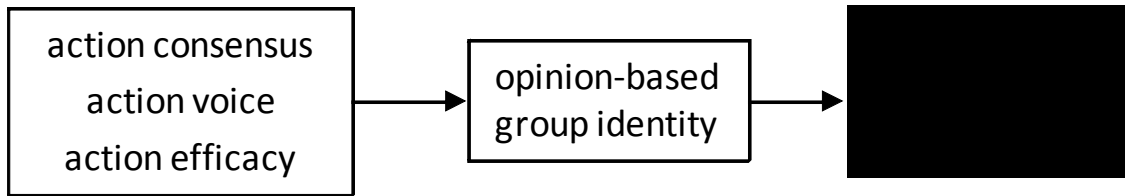
	Study 1	Study 2	Study 3	1	2	3	4
1. Action consensus	6.99 (1.30)	7.86 (.98)	8.23 (.64)	–			
2. Action voice	7.25 (1.45)	8.04 (.94)	7.67 (1.14)	.66**, .69**, .41*	–		
3. Action efficacy	7.88 (1.16)	8.36 (.83)	7.63 (1.32)	.37*, .46**, .43*	.26, .50**, .32†	–	
4. Social identification	6.30 (1.36)	6.74 (1.27)	6.23 (1.19)	.46**, .38*, .32†	.54**, .55**, .38*	.49**, .45**, .53**	–
5. Action intentions	6.64 (1.55)	7.06 (1.56)	6.86 (1.40)	.30†, .40*, .34†	.30†, .33*, .22	.45**, .51**, .53**	.73**, .58**, .67**
<i>N</i>	40	40	34				

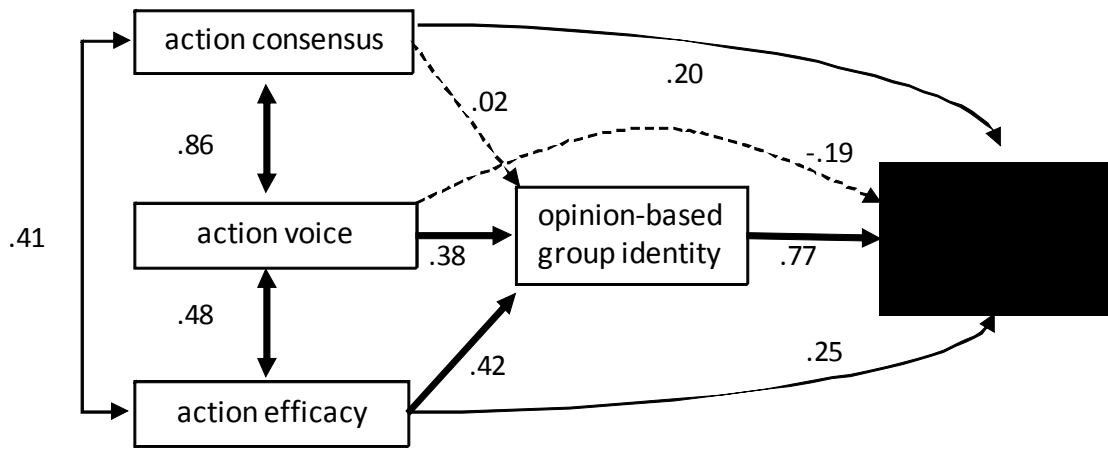
Note: These are raw correlations that do not incorporate dependence of observations. † $p < .10$, * $p < .05$, ** $p < .01$.

Figure captions

Figure 1. Proposed Opinion-Based Group Formation Model

Figure 2. Supported Opinion-Based Group Formation Model





Note: — $p < .001$; — $p < .05$; -- $p > .05$