Why Do People Take Action on Behalf of Groups?
Integrating Perspectives from Collective Action and Behaviour Change

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Abstract

Why do people engage in collective action — behaviours that serve to advance the status, power, and interests of a social group, rather than only of the self? This thesis investigates the predictors of individuals’ participation in action on behalf of a group, integrating traditional perspectives from collective action and intergroup relations, with concepts derived from the literature on self-regulation and behaviour change. Five studies were conducted to examine predictors of collective action. Study 1 was a large-scale systematic review comprising seven meta-analyses of the associations between collective action and various predictors using a dataset of more than 600 studies across a broad range of collective actions by a broad range of actors. Study 2 sought to predict action by allies in the workplace context, integrating predictors from contemporary models of collective action and variables from the theory of reasoned action using hierarchical multiple regression analyses. Studies 3a, 3b, and 3c investigated, using exploratory factor analysis, reasons for symbolic collective action among members of the general public, the advantaged group, and the disadvantaged group. Findings from the five studies demonstrate the value of integrating behaviour change constructs such as intention, willingness, expectation, past behavior, attitude, subjective norm, and durability, with predictors from the literature on collective action in order to advance the prediction of individual’s engagement in collective action, towards the goal of social change.
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to R

who brought me here
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Declaration

I, the author, confirm that the Thesis is my own work. I am aware of the University’s Guidance on the Use of Unfair Means (www.sheffield.ac.uk/ssid/unfair-means). This work has not been previously presented for an award at this, or any other, university.

The studies in Chapters 2, 3, and 4 have been submitted for review as follows:


Chapter 1
Introduction: The Social Psychology of Collective Action

The mess we are living in is a deliberate one. If it was created by people, it can be dismantled by people, and it can be rebuilt in a way that serves all, rather than a selfish, hoarding few. I consider myself to be part of a movement. You are part of that movement too. It's happening right now.

—Reni Eddo-Lodge, Why I’m No Longer Talking to White People About Race

We live in troubled times (de Montbrial, 2019). Despite societal advances in human rights and technological achievements in the post-war era, social problems persist around the world (Leon-Guerrero, 2019). These include problems of race, class, and gender inequality; problems of global impact such as environmental degradation, large-scale conflict, and forced displacement; and problems embedded within unjust political, economic, and social systems and institutions (Treviño, 2019; see also United Nations, 2015).

As observed by activists such as Reni Eddo-Lodge, quoted above, these problems are inherently social. They are brought about by people and social institutions. They negatively impact groups of people. The problem of racial inequality is an instructive example. Although race has a long history of being understood, by both scholars and laypeople, as a biological fact (Gossett, 1997), race is, like class or gender, socially constructed (Smedley & Smedley, 2005). Notions of and attitudes toward race may have changed since the 19th century when slavery was formally abolished, but racial inequalities remain deep. In the present-day UK, for instance, racial disparities have been observed across a vast array of outcomes, including living standards, educational attainment, labour force participation and wages, access to housing, experiences in the criminal justice system, and physical and mental health (UK Cabinet Office, 2018).
One way that group-based inequalities such as racial inequality can be addressed is by social movements, that is, through the collective efforts of individuals acting on shared goals of solving social inequalities and creating social change (Checkoway, 1995; Della Porta & Diani, 2020). This change is theorised to come about through three interrelated mechanisms (Giugni, 2008). Movements may influence political institutions like the state to develop or change social policies, such as enacting equality legislation or striking down discriminatory laws (Ameta et al., 2019). Movements produce so-called biographical outcomes, such as shifts in individual people’s beliefs, worldviews, and everyday behaviours, which can then produce changes in public opinion and be transmitted to the next generation (Passy & Monsch, 2019). Finally, movements lead to broader cultural shifts, giving rise to new framings of issues, new norms and social practices, and new cultural products such as art, music, and literature that embody and support the social change aspired for (Van Dyke & Taylor, 2019).

Social psychologists have long sought to understand why individuals become part of these larger movements and take collective action (van Stekelenburg & Klandermans, 2017), in order words, why individuals engage in behaviours that serve to advance the status, power, and interests of a social group, rather than only the self. This thesis examines the prediction of individuals’ participation in collective action, integrating traditional perspectives from the literature on collective action and intergroup relations, with concepts derived from the literature on self-regulation and behaviour change. In particular, this thesis is built upon five studies that attempt to answer the overarching question: Why do people take collective action?

The rest of this introductory chapter is organised into four sections. The first section presents a conceptual definition of collective action, its forms, and its significance in terms of theory and practice. The second section provides a brief overview of how collective action has been traditionally studied in social psychology. The third section then outlines an argument for the value of integrating a perspective of self-regulation and behaviour change in the analysis of collective action. The fourth and final section presents an overview of the
Collective Action: Definition, Forms, and Significance

Social psychological studies on collective action often cite a foundational definition provided by Wright et al. (1990): ‘A group member engages in collective action any time that he or she is acting as a representative of the group and the action is directed at improving the condition of the entire group’ (p. 995). Central to this conceptualisation are the following features: (1) that action occurs at the level of the individual without necessarily requiring co-actors or joint coordination with others, (2) that group interests, not personal self-interests, are the focal concern, and (3) that an individual acts as an in-group member.

Later scholars took this definition as a starting point, elaborating and contesting the third feature, that collective action should be limited to actions of the low-status group and its members (van Zomeren & Iyer, 2009). Historically, collective action research has focused on actions by disadvantaged group members, perhaps due to the earlier view that advantaged groups would not be motivated to act in ways that challenge social hierarchies and thereby erode their own group’s status, power, and influence. As Wright (2009) later acknowledged, definitions do evolve: Advantaged groups can and do engage in collective action on behalf of disadvantaged groups (Leach et al., 2002; see also Radke et al., 2020), as in the case of men taking action on behalf of women and gender equality (e.g., Iyer & Ryan, 2009) or heterosexual allies supporting sexual minority rights (e.g., Russell, 2011).

The reality of collective action being taken by individuals who are not solely from disadvantaged groups is reflected in current definitions of collective action (Becker, 2012; van Zomeren & Iyer, 2009). Becker (2012) articulates this definition as such: collective action is ‘any action that promotes the interests of one’s in-group or is conducted in political solidarity… to challenge or protect the status quo and can be conducted by low-status groups, high-status groups, or groups not distinguished by status position’ (p. 19).

Collective action, therefore, may be taken either by members of advantaged groups, by members of disadvantaged groups, or by groups not placed along a status hierarchy. The

succeeding chapters that form this thesis: five empirical studies, followed by a concluding chapter.
third possibility is accommodated by the notion of action by opinion-based groups, for example, recent action against hydraulic fracturing (‘fracking’) in the UK (Muncie, 2020). Opinion-based groups are those based on a shared opinion or political position (Bliuc et al., 2007), which may act as a type of newly constituted in-group (e.g., the anti-fracking movement; Muncie, 2020). Such groups may engage in collective action to influence policy matters, to publicise their position on a contested issue, or to boost their numbers.

Whoever engages in collective action, they have at their disposal a broad repertoire of collective action behaviours towards achieving group goals (Della Porta, 2013; Tilly & Tarrow, 2015). Participating in public protest is perhaps the most historically prototypical of these forms (van Stekelenburg & Klandermans, 2013; see Tilly & Tarrow, 2015, for an overview tracing protests all the way to the 18th century). Collective action, however, includes a vast array of behaviours beyond protest (Hanna et al., 2016; Ratliff & Hall, 2014; Theocharis & van Deth, 2016), ranging from institutionalised, normative actions (e.g., voting in a referendum, attending a workshop on workplace discrimination) to non-normative, even violent actions (e.g., participating in blockades, damaging property). Collective action may entail high costs in terms of time and financial resources (e.g., volunteering for an activist organisation, setting up protest camps) or demand little or no such investment (e.g., signing a petition, wearing a badge). Collective action may be coordinated and taken in actual groups (e.g., picketing, marching in public), or performed alone and even anonymously (e.g., donating money, boycotting a product). Indeed, the behavioural manifestations of collective action are so numerous that one recent review (Hanna et al., 2016) identified more than 200 forms of modern-day collective action behaviours.

Understanding the social psychological predictors of these collective action behaviours has theoretical and practical significance for at least three reasons. First, collective action has been a fruitful domain to extend, apply, and generate theoretical insights that have relevance to social psychology in general (van Stekelenburg & Klandermans, 2017; van Zomeren, 2015). As an individual behaviour performed in the service of group interests, collective action is a quintessential social psychological process,
implicating both group membership and individual agency. Furthermore, collective action is considered by social psychologists to be one of two core psychological models of social change to improve relations between groups and reduce social inequality and discrimination (Dixon et al., 2016; Wright & Baray, 2012).

Second, despite pessimism from a few scholars (e.g., Jost et al., 2017) about collective action’s pervasiveness in modern-day society, it has been found to be on the increase globally (Almeida, 2019; Goldstone, 2004). Since the 2000s, protests and other public forms of collective action behaviour have been building in frequency in nearly every region of the world across different political environments (Carothers & Youngs, 2015). Indeed, by 2011, protest forms of collective action worldwide were so extensive that *Time* magazine crowned ‘the protester’ as the person of the year (Andersen, 2011). A decade later, collective action has not gone away; from attendance in Women’s Marches, to mobilisation on climate action, to participation in campaigns such as the Black Lives Matter movement, collective action remains an important, widespread social phenomenon across societies.

Finally, the study of collective action is important because it is consequential action, both politically (Amenta et al., 2010, 2019; Bosi et al., 2016; Chenoweth & Stephan, 2011) and personally (Klar & Kasser, 2009; Thomas & Louis, 2013; Vestergren et al., 2017). Though previous theorising questioned the impact of collective action and asked ‘what happens next?’ (Louis, 2009), the current thinking is that collective action behaviours are important for well-functioning political systems (Amel et al., 2017; Rogers et al., 2018). At the individual level, engaging in collective action behaviours is associated with a range of positive psychological outcomes. These include positive consequences on psychological well-being such as increases in self-esteem, empowerment, and sense of community (Thomas & Louis, 2013; Vestergren et al., 2017).

In sum, collective action is of significant theoretical interest, a widespread global phenomenon, and a consequential behaviour for both society and the individual. Therefore
the prediction of people’s engagement in collective action is an important scholarly pursuit and the focus of the current research.

**Traditional Perspectives in the Social Psychology of Collective Action**

It has been argued that ‘the ultimate goal of the field is to be able to predict actual participation in collective action’ (van Zomeren & Iyer, 2009, p. 650). This aim provides important directions for social psychological research into collective action. It places focus on the antecedents of collective action, rather than its consequences, and on actual engagement in collective action behaviour, rather than self-reported intention.

Traditionally, scholarly work in the field has involved model-building and empirical research to identify the most optimal set of antecedent variables that have significant associations with collective action (van Stekelenburg & Klandermans, 2017; van Zomeren, Kutlaca, & Turner-Zwinkels, 2018). This has led to the development of various conceptual models, including but not limited to: the dual pathway model of collective action (Stürmer & Simon, 2004), the social identity model of collective action (SIMCA; van Zomeren et al., 2008), the encapsulation model of social identity in collective action (EMSICA; Thomas et al., 2011), the social identity, relative deprivation, collective efficacy model (SIRDE; Grant et al., 2015), the integrative model of protest motivation (van Stekelenburg & Klandermans, 2017), and the axiological-identitary collective action model (AICAM; Sabucedo et al., 2019).

One commonality among these models is that all posit multiple motivational pathways to collective action. Historically, theories of social movement participation such as relative deprivation theory (Runciman, 1966) and resource mobilisation theory (Klandermans, 1984) had emphasised a particular single core predictor of collective action. However, scholars came to realise that single-factor approaches could not adequately account for why individuals take collective action, and conceptual models shifted to an integrative approach, combining variables from two or more different theoretical perspectives. For instance, the dual pathway model of collective action (Stürmer & Simon, 2004) combines resource mobilisation theory (Klandermans, 1984) and social identity theory (Tajfel & Turner, 1979) to argue that people take collective action because they expect
rewards from participation (a cost-benefit pathway) or they feel a need to enact a politicised collective identity (a group identification pathway). Other integrative models identify three or more pathways to collective action; for example, the social identity model of collective action (SIMCA; van Zomeren et al., 2008) and the encapsulation model of social identity in collective action (EMSICA; Thomas et al., 2011) both propose that individuals take action to the extent that they perceive group-based disadvantage (an injustice pathway), identify with the disadvantaged ingroup (a social identity pathway), and hold beliefs about the group's ability to create change (an efficacy pathway). This issue of multiple motivation pathway models will be expanded on in Chapter 2.

Another commonality in the previous research is that they typically rely on individuals’ self-reports of intended behaviour as a proxy measure of collective action, instead of studying actual collective action behaviours (Louis et al., 2016). Collective action has been traditionally assessed as intention, using single-item measures (e.g., agreement with a statement such as ‘I will attend the demonstration on Friday’ on Likert-type scales; Stroebe, 2013) or multiple-item measures, such as the Activist Orientation Scale (Corning & Myers, 2002) which asks participants to report the likelihood of their performing 35 behaviours including signing a petition, voting, and boycotting products. In contrast, measures of actual behaviour are relatively less common. The substitution of intention for behaviour is based on a popularly accepted, but heretofore unexamined, assumption among collective action researchers that collective action intentions determine collective action behaviour (Louis et al., 2016).

This assumption appears widely held, despite the well-established finding that intentions do not necessarily translate into actual behaviour — the so-called intention-behaviour gap (Sheeran & Webb, 2016). In fact, research suggests that intentions are transformed into the desired behaviours only approximately one-half of the time (Sheeran & Webb, 2016; see also Webb & Sheeran, 2006, for meta-analytic evidence that effective interventions typically have a medium-to-large effect on intentions but only have a small-to-medium effect on behaviour). These findings imply that existing models of collective
action, inasmuch as they measure and predict collective action intentions, do not necessarily succeed in fulfilling the ultimate aim of predicting collective action behaviour. Less is known about the antecedents, processes, and factors involved in transforming individuals’ collective action intentions into actual behaviours. To address this problem, it is necessary to consider perspectives of self-regulation and behaviour change.

**Integrating Self-Regulation and Behaviour Change Perspectives**

Self-regulation, according to Vohs and Baumeister (2004), refers to ‘any efforts by the human self to alter any of its own inner states or responses... especially with regard to bringing the self into line with preferred standards’ (p. 2). These inner states include mental processes such as attention, thoughts, and emotions, as well as behavioural responses such as the initiation of an action (e.g., signing a petition against animal testing) or the inhibition of an action (e.g., not buying products tested on animals). Central to the purposive nature of self-regulation is the process of aligning one’s behaviours with goals and intentions (Wagner & Heatherton, 2015). This idea of goal-orientated behaviour thus fits closely with current definitions of collective action — any individual’s action that has the goal of promoting group interests, status, and power (Becker, 2012).

Importantly, self-regulation and behaviour change perspectives make a fundamental distinction between goal setting and goal striving (Bargh et al., 2010). Goal-setting refers to how individuals come to form goals (e.g., to engage in collective action). Goal striving, on the other hand, refers to how individuals transform these already-set goals into actual actions. This process includes overcoming the four major problems of goal striving (Gollwitzer, 2012): (1) getting started on the action, (2) staying on track with the action, (3) switching to better action strategies when necessary, and (4) terminating the action once the goal is achieved.

Traditional models of collective action can thus be considered to be motivational (i.e., goal-setting), rather than volitional (i.e., goal-striving), models of collective action. This thesis seeks to link and integrate the largely parallel literatures on collective action and on self-regulation and behaviour change, framing it both as a social psychological concern and as a problem of self-regulation and behaviour change.
The current programme of research thus contributes to our understanding of collective action in a number of key ways. We examine predictors which have not been extensively examined in the context of collective action, including variables from the literature on self-regulation and behavior change, using meta-analysis (Chapter 2) and in primary studies (Chapters 3 and 4). We quantify, for the first time using meta-analysis, the relationship between intention and behavior in collective action (Chapter 2). We broaden the scope of collective action to include not only collective action by individuals from disadvantaged groups, but also action by individuals from advantaged groups acting on behalf of disadvantaged groups (Chapters 2, 3, and 4), as well as action by opinion-based groups and by members of the general public (Chapter 2). Finally, we examine various relatively novel forms of collective action beyond the traditional focus on protesting, through primary studies (ally action in the workplace in Chapter 3, symbolic action in Chapter 4) and through meta-analysis (Chapter 2).

**Thesis Overview**

The current programme of research aims to answer the overarching question of why individuals take collective action. Five studies were conducted that examine predictors of action using a variety of quantitative approaches. The next three chapters feature these studies.

**Study 1: Why Do People Take Collective Action? Seven Meta-Analyses**

What are the most important known predictors of collective action intentions and behaviour by disadvantaged groups, advantaged groups, opinion-based groups, and the general public? A large body of primary studies exist in social psychology and across allied social sciences that examine predictors of collective action. Previous meta-analytic reviews (Smith et al., 2012; van Zomeren et al., 2008) exist; however, they have reviewed only studies in social psychology, focused only on certain groups of actors (i.e., disadvantaged groups), and utilise only certain theoretical perspectives (such as relative deprivation, Smith et al., 2012). To date, there has been no comprehensive synthesis of the literature on predictors of collective action by various groups of actors, from social psychology and across
allied social sciences. We therefore conducted the largest systematic review of the predictors of collective action to date and evaluated seven predictors of a broad range of collective actions by a broad range of actors, integrating perspectives from collective action and self-regulation/behaviour change. This comprehensive synthesis comprises seven meta-analyses of the associations between collective action and various predictors (including three variables from the literature on self-regulation behaviour change) as well as 27 moderator analyses, using an original dataset of more than 600 studies encompassing 1,319 correlations.

**Study 2: Why Do Allies in the Workplace Take Collective Action?**

What predicts intended and actual collective action by members of the advantaged group on behalf of the disadvantaged? Previous research on the predictors of collective action by advantaged group members on behalf of disadvantaged groups (i.e., ‘allyship’) has rarely integrated theories of self-regulation and behaviour change and has seldom examined behaviours in workplace contexts. In this correlational field study, we sought to predict action by allies in the workplace context, integrating variables drawn both from models of collective action and from the literature on self-regulation and behaviour change. Specifically, we test the extent to which variables from the theory of reasoned action (Fishbein & Ajzen, 2010) predict ally intention, willingness, expectation, and subsequent behaviour, over and above variables from the extended social identity model of collective action (van Zomeren et al., 2018). Members of a workplace allies programme for lesbian, gay, bisexual, and transgender (LGBT) inclusion completed questionnaires assessing predictors of ally action and their intention, willingness, and expectation to participate in voluntary training for LGBT inclusion, with participation in actual training also measured at a subsequent time point.

**Studies 3a, 3b, and 3c: Why Do People Take Symbolic Collective Action?**

What reasons underlie people’s engagement in the more symbolic forms of collective action? Previous research on collective action has focused on explicitly political behaviours such as protesting and voting but have rarely examined other, more self-expressive behaviours such as wearing symbols related to a political cause on the body. Likewise, few
studies have investigated people’s subjective reasons for engaging in collective action, including symbolic action. In a series of three investigations, we explore people’s subjective reasons for taking part in the relatively understudied action of wearing symbols. Exploratory factor analysis was employed to investigate reasons for wearing a political wrist band among members of the general public (N = 74) and for wearing a rainbow lanyard by members of the advantaged group (cisgender heterosexual employees, N = 261) and the disadvantaged group (LGBT employees, N = 90). Furthermore, we integrate perspectives from the literature on self-regulation and behaviour change by investigating the extent to which subjective reasons for initial action predict the durability, or sustained enactment over time (De Young, 1993), of wearing symbols, over and above traditional variables from the models of collective action (van Zomeren et al., 2018).

**Conclusion**

The final chapter presents a summary of findings of the five empirical studies that form part of this thesis, linking them with the literatures on collective action and on self-regulation and behaviour change. Key contributions and strengths of the overall programme of research are discussed. Limitations and an agenda for future research are outlined. This chapter closes with some thoughts on the value of predicting individuals’ engagement in collective action, towards the goal of social change.


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Chapter 2

Why Do People Take Collective Action? Seven Meta-Analyses
Abstract

Collective action – behavior that aims to advance the status, power, or influence of a particular social group – can be a key catalyst for social change. A great deal of research has investigated the predictors of collective action, but the field lacks a comprehensive integrative analysis that evaluates the predictors of a broad range of actions by a broad range of actors. We report the largest review of predictors of collective action to date to address this gap. Seven meta-analyses encompassing 1,319 correlations indicated significant, positive correlations between collective action and all seven predictors: medium-sized correlations with intention, emotion, efficacy beliefs, group identification, moral motives, and past behavior, and a small-sized correlation with perceived grievance. These associations were significant for action by disadvantaged groups, advantaged groups allied with disadvantaged groups, opinion-based groups, and the general public. Moderator analyses indicated that people are more likely to take collective action when they (1) feel anger, shame, sympathy, discontent, or guilt, or (2) identify with a politicized group, or (3) have high group or individual efficacy. Taken together, the findings underscore the importance of adding self-regulatory constructs such as intention, past behavior, and individual efficacy to integrative models of collective action.

Public significance statement:

One way to create social change is collective action, any behavior that advances the status, power, or influence of a social group. This review shows that there are many predictors of collective action: intentions, emotion, group identification, efficacy beliefs, moral motives, past behavior, and perceived grievance. Activists, movement organizers, and groups need to target these multiple pathways, especially the formation of intention, to mobilize people to collective action.

Keywords: collective action, political behavior, protest, self-regulation, meta-analysis
Why Do People Take Collective Action? Seven Meta-Analyses

All over the world, individuals seek to create social change by taking collective action, defined as any individuals behavior that aims to advance the status, power, or influence of a social group (Becker, 2012b; van Zomeren & Iyer, 2009; Wright et al., 1990). Collective action comes in many forms (Hanna et al., 2016; Ratliff & Hall, 2014), from formal political participation by citizens (e.g., voting in a referendum), to protest behaviors such as marching, rallying, or leafleting, to more low-cost actions such as signing an online petition.

Aside from its increasing ubiquity in modern societies, studying collective action is important because of its political, psychological, and broader theoretical value. First, the presence of collective action is considered crucial to the political health of well-functioning democratic societies (Amel et al., 2017; Rogers et al., 2018) and is an important path to social change. Across political environments and social systems, collective action has created concrete transformations in policies, institutions, and society at large (Bosi et al., 2016; Chenoweth & Stephan, 2011).

Second, taking collective action is associated with a range of positive psychological outcomes, such as increases in self-esteem, empowerment, hedonic well-being, and sense of community (Klar & Kasser, 2009; Thomas & Louis, 2013; Vestergren et al., 2017). Furthermore, engaging in collective action can buffer against the effects of discrimination on the mental health of disadvantaged groups (e.g., Hope et al., 2019) and has been argued to facilitate positive socioemotional development, particularly among youth (Ballard & Ozer, 2016). As such, understanding the factors that predict collective action (and under what conditions) is critical. Scientific knowledge about why and when people take collective action will enable us to facilitate, promote, and sustain such behaviors in the service of collective goals and social change.

Third, understanding the predictors of collective action can also contribute to theorizing across different areas of psychology, such as stress and coping, emotion, and motivation. Social problems such as social injustice, stigma, and discrimination can be considered stressors, for which taking collective action serves as coping strategy (van
Zomeren et al., 2004; van Zomeren, Spears & Leach, 2008). At the same time, collective
action implicates a range of emotions, most notably anger (e.g., Leach et al., 2002; Thomas
et al., 2009a). Specific forms of collective action, such as voter turnout and associated
actions of political participation, are also of key interest among behavior scientists and
political psychologists (e.g., Rogers et al., 2018). More broadly, inasmuch as humans are
political animals, as asserted by Aristotle (ca. 350 B.C.E./1885), collective action draws upon
core psychological motivational principles (Klar & Kasser, 2009; van Zomeren, 2013).

Previous meta-analytic research on the predictors and moderators of collective action
exists (e.g., Smith et al., 2012; van Zomeren, Postmes, & Spears, 2008), but this work is
limited in a number of ways. First, these papers have only focused on collective action by
members of historically low-status groups (e.g., women, gay people, and ethnic minorities)
and thus do not tell us about action by high-status groups or by opinion-based groups
formed outside standard demographic categories (e.g., environmentalists). Second, previous
meta-analyses operationalize collective action primarily as protest and thus have excluded
more institutionalized forms of political participation such as voting. Third, though they have
provided important quantitative estimates of the association between collective action and
key predictors — namely perceived injustice, in-group identification, and group efficacy —
less is known about other predictors that have been theorized to mobilize action, such as
emotion and moral motives. Fourth, previous reviews have been rooted in theories of relative
deprivation (e.g., Gurney & Tierney, 1982) and social identity (e.g., Klandermans, 2013;
Simon & Klandermans, 2001) and have provided important insights about the motivational
factors that guide the formation of intentions to engage in collective action (i.e., an
individuals’ goals, plans, and self-instructions to engage in collective action; Fishbein &
Ajzen, 2010; Gollwitzer, 2012; Triandis, 1980; Warshaw & Davis, 1985b). Less is known,
however, about the volitional factors that operate in the translation of collective action
intentions into actual collective action behavior (Gollwitzer, 2012). As observed by Louis, La
Macchia et al. (2016), researchers often work under the assumption that intention leads to
behavior in collective action despite the well-established discrepancy between what people
intend to do and what they actually do (the so-called “intention-behavior gap”, Sheeran & Webb, 2016). It is only with the translation of these intentions into actual behavior that individuals and groups can achieve the positive psychological and societal outcomes that come with collective action, hence the importance of investigating the association between collective action intention and collective action behavior. Finally, previous meta-analyses have attempted to examine moderators of the association between collective action and key predictors. However, these analyses have been limited to a small number of variables, focused on either characteristics of the predictor (e.g., whether injustice is measured as a feeling or a perception) or simple study characteristics (e.g., gender composition of samples), rather than considering characteristics of the collective action behavior itself.

In this paper, we report seven meta-analyses comprising the largest, most comprehensive systematic review and meta-analysis of the collective action literature to date. We build on previous narrative reviews (Duncan, 2018; van Stekelenburg & Klandermans, 2017a; van Zomeren, 2015) and meta-analytic reviews (Smith et al., 2012; van Zomeren, Postmes & Spears, 2008) on collective action in a number of important ways. First, we widen the scope to include not only collective action by individuals from disadvantaged groups, but also action by individuals from advantaged groups acting on behalf of disadvantaged groups (“allies”; Droogendyk et al. 2016; van Zomeren et al., 2011), action by opinion-based groups who are defined by shared views on a particular socio-political issue (Bliuc et al., 2007; McGarty et al., 2009), and political action by members of the general public who are not defined by any particular salient group membership (Emler, 2015; van Deth, 2014). Second, we expand the operationalization of collective action beyond protesting and include various forms of action including signing petitions, boycotting, donating money, and more institutionalized political behaviors such as voting. Third, we examine a larger and more nuanced set of predictors of collective action, including variables developed in the literature on self-regulation and behavior change which have heretofore never been examined meta-analytically in the context of collective action. Accordingly, we also examine the relationship between intention and behavior in studies of
collective action. Fourth, we examine a much more comprehensive range of moderators than has been previously investigated, to both assess the robustness of the relationship between predictors and collective action and to develop a more nuanced knowledge of the factors that affect these relationships, including key characteristics of each predictor, characteristics of the collective action itself, and methodological characteristics. We pursue these aims by updating previous meta-analyses with results from the most recent primary studies published in psychology, as well as research in other cognate disciplines, such as political science, sociology, and communication studies.

Predictors and Predictor-Specific Moderators of Collective Action Intentions and Behavior

A number of variables have been proposed in social psychology and related disciplines as the core predictors of intentions to engage in collective action. We examine the most prominently theorized predictors in the literature: perceived grievance, emotion, group identification, group efficacy beliefs, and moral motives (Gamson, 1995; van Stekelenburg & Klandermans, 2013; van Zomeren, 2013, 2015). In addition to these five predictors, we draw on concepts developed in the self-regulation tradition to explain a broader range of behaviors, that can be applied to predict actual collective action behavior: intentions, past behavior, and individual and action-focused efficacy beliefs (Bandura, 1997; Fishbein & Ajzen, 2010; Ouellette & Wood, 1998). Below, we discuss each of these variables and how they form the focus of our seven meta-analyses.

Perceived Grievance

If group members believe that there exists undeserved disadvantage, hardship, or loss leading to group harm and suffering, this may motivate collective action (Gamson, 1995). These grievances can take a wide range of forms. According to relative deprivation theory (Runciman, 1966; Gurney & Tierney, 1982; Walker & Smith, 2002), people take action when they perceive that their group is not getting what they deserve compared to other groups, while social justice theory (Tyler, 2001; Tyler & Lind, 2002) suggests that collective action is a response to a judgment of injustice based on being treated disrespectfully
(procedural injustice) or based on ending up with unfair outcomes (distributive injustice). Perceived grievance may also stem from sudden group threats (Walsh, 1981) or being the target of prejudice and discrimination (Major et al., 2002). In using the term *perceived grievance*, we follow van Stekelenburg and Klandermans’ (2017a) argument that a broad range of negative conditions and events are at play in motivating collective action, beyond just relative deprivation and perceptions of injustice.

Previous meta-analytic research supports the association between perceived grievance and collective action. Smith, Pettigrew, Pippin, and Bialosiewicz (2011) found a small but significant correlation ($r = .14$) between relative deprivation and collective action, while Van Zomeren, Postmes, and Spears (2008) found a medium-sized correlation ($r = .35$) between perceived injustice and collective action among disadvantaged groups.

In our first meta-analysis, we examine the association between perceived grievance and collective action, extending previous work in two novel ways. First, we include a broader set of forms of perceived grievance than has been previously reviewed. We examine both relative deprivation (cf. Smith et al., 2012) and perceived injustice (cf. van Zomeren, Postmes, & Spears, 2008), but also grievance types not previously included in meta-analytic reviews on collective action. Second, we apply the distinction made by social justice theory (Tyler, 2001; Tyler & Lind, 2002) between procedural versus distributive injustice to investigate their associations with collective action as differing types of perceived grievance, detailed below.

**Type of Perceived Grievance.** As indicated above, primary studies on collective action differ in the type of perceived grievance they examine. Previous meta-analytic work (van Zomeren, Postmes, & Spears, 2008) focused on comparing affective versus non-affective forms of perceived injustice. Affective injustice referred to people’s felt emotions about group disadvantage while non-affective injustice was defined as individuals’ thoughts and beliefs about the degree of group disadvantage. This review found a significantly larger association between affective injustice and collective action, at least among disadvantaged groups.
Apart from the difference between affective versus non-affective forms, other distinctions within perceived injustice may be made. Here, we examine the impact of the well-established conceptual distinction between procedural versus distributive injustice (Tyler, 2001; Tyler & Lind, 2002) on collective action. As outlined above, procedural injustice refers to the judgment about groups being treated wrongly or disrespectfully, while distributive injustice refers to the judgment that group outcomes are unfair. Some scholars have argued that individuals place primacy on being treated fairly (procedural justice) over actual outcomes (distributive justice) when perceiving legitimacy (e.g., Folger & Konovsky, 1989; Tyler, 2006). On the other hand, empirical studies suggest that in real-world contexts like workplace activism, procedural justice is no better at predicting collective action than distributive justice (e.g., Buttigieg et al., 2008) or that procedural injustice is a weaker mobilizer than distributive injustice (e.g., Kelloway et al., 2008). Other studies (e.g., Taylor et al., 1987) have found that it is the combined effects of procedural and distributive injustice that lead to higher collective action intentions.

Given this debate in the literature, we also conduct a moderator analysis in the first meta-analysis, to examine whether the specific type of injustice-based grievance (i.e., procedural versus distributive injustice) moderates the association between perceived grievance and collective action.

**Emotion**

Apart from cognitive appraisals about the illegitimacy and injustice of the status quo, a second and related predictor of collective action is emotion, particularly anger. Anger among disadvantaged group members has long been associated with intentions to engage in collective action (Livingstone et al., 2009; van Troost et al., 2013), confirming popular notions among activists about “the uses of anger” (Lorde, 1981, p. 7). Meta-analytic evidence from van Zomeren, Postmes, and Spears (2008) indicated that negative feelings like anger, dissatisfaction, and resentment derived from perceived group disadvantage (as a form of affective injustice) have a significant, medium-sized correlation ($r_s = .49$) with collective action among disadvantaged groups. Collective action researchers have studied
anger as the prototypical protest emotion (van Stekelenburg & Klandermans, 2017a; van Troost et al., 2013). Several studies, however, have examined other discrete emotions beyond anger in the context of ingroup-serving collective action intentions and behavior. For example, in one study of German university students confronted with a court ruling to end free public education, Tausch et al. (2011) showed that contempt was associated with intentions to engage in collective action. In another study, Foster and Matheson (1998) found that Canadian women’s feelings of discontent about sexist discrimination was correlated with engaging in feminist collective action behavior in the past six months. Positive emotions have also been the focus of recent investigations, such as a study by Wlodarczyk et al. (2017) showing that hope, the positive feeling of favorable outcome anticipation despite a grim status quo, was correlated with the degree of actual participation in Spain’s Indignados movement.

Primary studies have also demonstrated that advantaged groups can be moved by emotions to become more willing to engage in collective action on behalf of a disadvantaged group, such as when they feel anger about their group advantage (Leach et al., 2006), sympathy towards the disadvantaged group (Iyer & Ryan, 2009), guilt (Mallett et al., 2008), or shame about their own group’s past treatment of the outgroup (Iyer et al., 2007). Finally, other studies have alternatively examined general positive affect (e.g., Sabucedo & Vilas, 2014) or negative affect (e.g., Grant et al., 2015) or both (e.g., Jost et al., 2012). These studies consider people’s general experience of positive or negative emotions as possible predictors of collective action, instead of differentiating discrete emotions (e.g., guilt versus anger). Thus our second meta-analysis examines the association between emotion and collective action, extending previous meta-analyses by expanding the range of emotions covered.

Type of Emotion. However, it remains unclear how well this range of types of emotion predict collective action compared to anger. Some (e.g., Thomas et al., 2009b) have argued that anger, specifically in the form of outrage directed toward a system of inequality, has primacy in mobilizing collective action, though they concede that it is “possible and
plausible” that other emotional reactions have a role to play in motivating action, especially in response to perceived social inequalities (Thomas et al., 2009b, p. 327). Accordingly, our second meta-analysis also extended previous meta-analysis by investigating the differential role of various emotions in predicting collective action, in two moderator analyses. The first analysis uses a discrete emotions perspective (Harmon-Jones et al., 2017) to compare the moderating effects of specific types of emotion on the association between emotion and collective action, focusing not only on anger but also other discrete emotions, including fear, shame, guilt, sympathy, and hope. The second analysis uses a dimensional emotions approach (Harmon-Jones et al., 2017) to examine whether broad arrays of affect differentiated by valence (i.e., negative versus positive affect) differentially predict collective action. We thus provide the first meta-analytic test of the association between emotion and collective action as a function of type of emotion, by comparing different types of discrete and dimensional emotions.

**Group Identification**

A third predictor of people’s participation in collective action is social identity, a consciousness of “they”, whose policies or practices need to be changed, versus “we”, the agents of change (Gamson, 1995). Strong group identification, especially identification with social movements and other politicized groups, drives individuals to engage in behaviors to advance group interests (Alberici & Milesi, 2016; Iyer & Ryan, 2009; Kelly, 1993; Stürmer & Simon, 2004a). In one early illustration of this effect, gay men who were experimentally induced to identify with the gay rights movement showed greater willingness to participate in collective action, even after controlling for the effect of past participation (Simon et al., 1998).

According to social identity theory (Tajfel & Turner, 1979), identification with a group leads individuals to think, feel, and act in group terms, including thinking, feeling, and acting on behalf of the group’s interests. Indeed, group identification is a key variable in various theoretical models of collective action by disadvantaged groups. Some of these models, such as the social identity model of collective action (SIMCA; van Zomeren, Kutlaca, & Turner-Zwinkels, 2018; van Zomeren, Postmes & Spears, 2008) and the encapsulation
model of social identity in collective action (EMSICA; Thomas et al., 2009, 2011), propose that group identification has a direct relationship with collective action. Others, such as the social identity, relative deprivation, collective efficacy model (SIRDE; Grant et al., 2015, 2017), van Stekelenburg and Klandermans’ (2007, 2013, 2017) integrative model of protest motivation, and the axiological-identitary collective action model (AICAM; Sabucedo et al., 2018, 2019) ascribe less centrality to group identification but nevertheless posit that identifying with a group is an important predictor of collective action.

Van Zomeren, Postmes, and Spears’s (2008) meta-analysis demonstrated that group identification has a medium-sized correlation ($r = .37$) with collective action intentions, at least among members of disadvantaged groups. It is unknown how strongly this association holds for other groups taking action. Primary studies of allied advantaged group members acting on behalf of disadvantaged groups, however, are suggestive (e.g., Curtin et al., 2016; Ochoa et al., 2019; Subašić et al., 2018). In one such study, Hong Kong participants (the high-status group) who identified more strongly with a discriminated migrant target (the low-status group) reported stronger tendencies for ally collective action (van Zomeren et al., 2011). In another study that looked directly at ally identification, heterosexuals who identified more strongly with the LGBT (lesbian, gay, bisexual, and transgender) community, particular as an ally to LGBT people, were more likely to engage in pro-LGBT rights activism, even after controlling for individual differences in empathy (Jones & Brewster, 2017). Likewise, primary studies have also shown that identification with opinion-based groups, i.e., those formed on the basis of a shared stance about a particular social or political issue such as climate change or environmentalism, also predicts collective action on that issue (Bliuc et al., 2007; McGarty et al., 2009).

Therefore, in our third meta-analysis, we examine the association between group identification and collective action not just by disadvantaged groups. Specifically, we extend previous meta-analyses by examining, for the first time, the relationship between group identification and collective action in a broader range of groups, including advantaged groups, opinion-based groups, and the general public.
Type of Group Identification. Research on collective action, activism, and social movement participation distinguish between identification with politicized versus non-politicized groups (Becker, Tausch, Spears, et al., 2011; Kelly, 1993; Stürmer & Simon, 2004a). Previous meta-analysis (van Zomeren, Postmes, & Spears, 2008) has shown that identification with politicized groups (e.g., identifying as a feminist) predicts collective action more strongly than identification with non-politicized groups (e.g., identifying as a woman), at least among disadvantaged group members. In the third meta-analysis, we replicate and extend the examination of this moderator to collective action by advantaged groups, opinion-based groups, and members of the public at large. In line with past research, we expected to find stronger positive correlations between group identification and collective action when individuals identify with politicized groups compared to with non-politicized groups.

Efficacy Beliefs

A fourth predictor, group efficacy beliefs, emphasizes collective action’s instrumental function, akin to a problem-oriented coping strategy in response to collective disadvantage (van Zomeren et al., 2004). Group efficacy, a person’s belief that the group is capable of achieving desired outcomes when working together, is a significant predictor of collective action intentions among disadvantaged groups (e.g., Alberici & Milesi, 2016; Shi et al., 2015; Stewart, 2017). For example, in a study of democratic transition in Hong Kong, group efficacy beliefs were associated with citizens’ intentions to participate in pro-democracy protests against the mainland Chinese government (Lee, 2010).

Overall, group efficacy beliefs have been shown to have a medium-sized correlation \( r = .36 \) with collective action among the disadvantaged, according to a previous meta-analysis (van Zomeren, Postmes, & Spears, 2008). Primary research suggests that the association should also hold for high-status groups who act in solidarity with low-status groups. For instance, one recent study demonstrated that men’s willingness to act against gender wage gaps (which disadvantages women) was predicted by men’s group efficacy beliefs (Stewart, 2017). In another study involving an opinion-based group, US residents...
who believed that group efforts led to more social impact were more likely to engage in
environmental collective action such as attending climate change rallies (Roser-Renouf et al., 2014). Following these findings, our fourth meta-analysis also examines the association between efficacy beliefs and collective action, but extends previous meta-analyses by expanding the focus from group efficacy beliefs to also include individual and action-focused efficacy beliefs, as detailed below.

**Type of Efficacy Beliefs.** While group efficacy is the main focus in the collective action literature, self-regulation models like social cognitive theory (Bandura, 1977, 1997) posit that what fundamentally predicts and regulates the performance of an action is the belief in *individual efficacy*. In contrast to group efficacy, individual efficacy refers to a person’s beliefs about their own capabilities to engage in a particular behavior required to attain a desired outcome, e.g., to personally engage in political behaviors aimed at creating social change.

Evidence from primary studies suggest that individual efficacy beliefs are a distinct predictor of collective action in different types of social groups. For example, in a study of university students taking a women’s studies class, individual efficacy beliefs were found to be associated with intentions to engage in feminist action both before and after the semester (Eisele & Stake, 2008). Individual efficacy beliefs also predict collective action by advantaged or third party groups on behalf of disadvantaged groups, as in the case of activism by heterosexuals for equal rights for LGBT people (Jones & Brewster, 2017) and willingness of non-Arab people to support Arab uprisings (Stewart et al., 2016). In addition, individual participative efficacy (the belief that one’s participation has a significant contribution to the achievement of group goals; van Zomeren et al., 2013) has been shown to predict individual intentions to engage in collective action among opinion-based groups concerned about climate change, over and above group efficacy beliefs (Bamberg et al., 2015).

Other research finds evidence for the effects of believing that collective action itself (as opposed to the collective actors) will lead to the desired changes in social and political
systems. These action-focused efficacy beliefs are also referred to by political scholars as external political efficacy (Craig & Maggiotto, 1982), or in the language of social cognitive theory, outcome expectancies (Bandura, 1997). Primary studies of protest across different political contexts are illustrative; for example, in their study of Egyptian activists protesting repressive authoritarian regimes, Ayanian and Tausch (2016) found significant correlations between collective action intentions and beliefs in the efficacy of protest action. Likewise, in a study of the Occupy movement in Hong Kong, stronger beliefs about the efficacy of social movement organizing predicted more willingness to engage in pro-democracy protests in a representative sample of Hong Kong citizens (Chan, 2016a).

Given the potential differential predictive value of different types of efficacy beliefs, our fourth meta-analysis also conducts, for the first time, a moderator analysis investigating whether type of efficacy beliefs (group, individual, or action) moderates the association between efficacy beliefs and collective action.

**Moral Motives**

A fifth predictor of collective action is moral motives (van Zomeren, 2013, 2015; see also Skitka, 2010; Skitka & Morgan, 2014). Moral motives refer to the notion that people may subjectively experience a particular social issue as reflective of fundamental beliefs about right and wrong. These concerns are often viewed as non-negotiable, universally applicable rather than historical or culturally variable, with strong prescriptive and proscriptive components. For example, some individuals may endorse and practice veganism for deeply held moral reasons (“ethical vegans”), while others view their plant-based diet as a means to lose weight (“health vegans”) with no particular moral underpinnings to their action (Greenebaum, 2012).

Group members are theorized to be more likely to engage in collective action to promote and defend personally cherished group values because they believe it is the morally correct thing to do. This suggests that moral motives can stand as a distinct predictor of outcomes like collective action. Primary studies appear to support this proposition. For instance, in a study of university students in Spain facing a proposed tuition hike, Vilas and
Sabucedo (2012) found evidence that moral motives predicted collective action intentions. In another study, Skitka et al. (2016) found that US citizens who viewed same-sex marriage as a moral issue had stronger intentions to engage in activism in support of their views. This was true regardless of political orientation or whether they supported or opposed same-sex marriage.

The empirical literature on the relationship between moral motives and collective action has not yet been quantitatively synthesized. For the first time, therefore, our fifth meta-analysis conduct reviews the association between moral motives and collective action. Based on findings in previous primary studies, we expected moral motives to have a significant, positive correlation with collective action.

**Type of Moral Motive.** A number of primary studies have shown that at least two types of moral motives predict collective action. One line of research has focused on moral conviction, people’s reports that their position on a particular political issue is grounded in notions of right and wrong (Skitka & Morgan, 2014). Moral conviction has been shown to be associated with behaviors like petition-signing (van Zomeren et al., 2012) and voter choice (Skitka & Bauman, 2008). In contrast, another line of research has championed moral obligation, the belief that participating in a specific act of collective action is the “right thing to do”, as the type of moral motive that more strongly predicts collective action (Sabucedo et al., 2018; Sabucedo et al., 2019). Researchers from this tradition argue that it is the sense of duty embodied in moral obligation that connects a person’s broad moral convictions to engagement in specific collective action. Thus, moral obligation, compared to moral conviction, should be more strongly associated with taking action (Vilas et al., 2016).

Given the debate in the literature, we conduct a moderator analysis in our fifth meta-analysis to compare the two kinds of moral motives (moral conviction versus moral obligation) and determine whether the type of moral motive moderates the association between moral motives and collective action.

*Intentions*
According to a long line of research on self-regulation, intentions are the most important immediate antecedent of goal-directed behavior (Armitage & Conner, 2001; Fishbein & Ajzen, 2010; McEachan et al., 2016; Sheeran, 2002; Sheppard et al., 1988; Warshaw & Davis, 1985b; Webb & Sheeran, 2006). Intentions are a person’s subjective readiness to engage in a particular action (Fishbein & Ajzen, 2010), akin to instructions made by the self, for the self, to engage in particular behaviors in the future (Triandis, 1980), e.g., “I intend to participate in the protest next week”. Intentions stand as a core construct in many psychological theories of behavior prediction, including the theories of reasoned action and planned behavior (Ajzen, 1991; Fishbein & Ajzen, 1975, 2010), protection motivation theory (Rogers, 1975), the model of goal-directed behavior (Perugini & Conner, 2000), and social cognitive theory (Bandura, 2001). Numerous meta-analytic studies have converged on the finding that intentions have medium to large-sized associations with behavior, ranging from $r = .47$ to $.53$ (Armitage & Conner, 2001; Hagger et al., 2002; McEachan et al., 2016; Sheppard et al., 1988).

Nevertheless, self-regulation researchers have drawn attention to a sizable discrepancy between people’s intentions to engage in a behavior and whether they actually engage in this behavior – the so-called intention-behavior gap (Sheeran & Webb, 2016; see also Rhodes & de Bruijn, 2013; Rhodes & Yao, 2015). As a psychological construct, intentions are conceptually and empirically distinct from behavior. Intentions are not directly observable but must be measured via self-report (e.g., the Activist Orientation Scale; Corning & Myers, 2002), while behaviors may be self-reported (e.g., participants’ reports of having voting in a referendum; Grant et al., 2017) or observed by researchers directly (e.g., presence in a public demonstration; van Stekelenburg & Klandermans, 2014) or indirectly (e.g., number of flyers calling for equality taken home by participants; Stewart et al., 2013). Furthermore, meta-analysis of behavior change intervention studies indicate that medium-to-large changes in intention ($d = 0.66$) only result in small-to-medium changes in behavior ($d = 0.36$), providing clear evidence for the value of distinguishing between intention and behavior (Webb & Sheeran, 2006).
Despite the ultimate aim of collective action research being the prediction of actual engagement in collective action (van Zomeren & Iyer, 2009), the vast majority of social psychological research on collective action stops at measuring intentions to engage in collective action, rather than actual collective action behavior (Louis et al., 2016; see also Oegema & Klandermans, 1994, for a sociological account of the problem of “nonconversion” of motivation to action in the context of social movements).

Across our meta-analyses, we therefore distinguish between collective action intentions and collective action behavior (see section on type of collective action measured for further discussion of the relevant moderator analysis). In addition, in our sixth meta-analysis, we provide the first meta-analytic estimate of the size of the intention-behavior gap in the domain of collective action. Based on meta-analytic findings from other domains of self-regulation (e.g., Armitage & Conner, 2001; Hagger et al., 2002; McEachan et al., 2016; Sheppard et al., 1988), and in the absence of any reason to suspect that collective action is differentially susceptible (or robust) to the intention-behavior gap relative to other behaviors, we expect to find a medium to large positive correlation between collective action intentions and collective action behavior.

**Type of Intention.** From a self-regulation perspective, a person’s general intention to engage in a particular behavior like collective action can be measured in various ways. These are behavioral intentions, behavioral expectations, and behavioral willingness (Gibbons, 2006; Warshaw & Davis, 1985a, 1985b). Primary studies that follow a traditional definition of intention as behavioral intentions (self-instructions to take some deliberate course of action; Triandis, 1980) typically ask participants to report on planned future behavior and assess their levels of commitment to act. For example, Thomas et al. (2019) measured intentions to engage in pro-refugee collective action using straightforward items like “I intend to sign a petition” and “I intend to support the plight of Syrian refugees by donating money to the cause.” Studies that tap into behavioral expectations, on the other hand, ask participants to predict whether they will take, or rate the probability of themselves taking, action (Warshaw & Davis, 1985a, 1985b). For example, in an investigation of public
responses to the threat of restricting abortion rights in Poland, participants were asked to rate their likelihood of participating in pro-choice feminist collective action (Jasko et al., 2019, study 3). Finally, studies may assess behavioral willingness, a person’s degree of openness to take action in the face of situational opportunities (Gibbons et al., 1998, 2015). This is typically measured using face-valid items that ask participants how willing they would be to do a particular behavior (e.g., willingness to send a letter of protest to government: Leach et al., 2006) or their receptivity to that behavior (e.g., an item such as “Of the next ten protests scheduled in support of justice in Palestine, how many would you be willing to attend?”: Saab et al., 2015).

Expectations and willingness are often subsumed under the general term intention. Indeed, some social psychologists like Fishbein and Ajzen (2010) argue that expectations and willingness are synonymous with intention. In the current paper, for ease of expression, we also use intention as an umbrella term, encompassing behavioral intentions, behavioral expectations and behavioral willingness. However, there is empirical evidence, at least from health psychology, to show the utility of differentiating behavioral expectations and behavioral willingness from the traditional conceptualization of intention. Primary studies of health behavior indicate that people’s behavioral expectations or behavioral willingness might be better predictors of actual behavior than their behavioral intentions. In two prospective studies, for example, Armitage et al. (2015) found that behavioral expectations of drinking at time 1, but not behavioral intentions to drink, predicted alcohol consumption at time 2. They also found that changes in behavioral expectations regarding losing weight, but not changes in behavioral intentions to lose weight, predicted actual weight loss at a 6-month follow-up. In contrast, meta-analytic studies are equivocal, sometimes finding slightly larger effect sizes for intention measured in the traditional manner (i.e., as behavioral intentions; e.g., Armitage & Conner, 2001), or for behavioral expectations (e.g., Sheppard et al., 1988), or for behavioral willingness (e.g., Todd et al., 2014). In our sixth meta-analysis, therefore, we conduct a moderator analysis to test whether the type of intention (behavioral...
intentions as traditionally defined versus behavioral expectations versus behavioral willingness) moderates the association between intention and collective action.

**Correspondence Between Intention and Behavior.** Another important factor that concerns the association between intention and behavior is the degree of compatibility, or correspondence, between the pairs of measures employed (Fishbein & Ajzen, 2010; Kraus, 1995). According to Fishbein and Ajzen (2010), a behavior involves an action directed at a target, performed in a given context, at a certain time. The principle of correspondence therefore requires that measures of intention and behavior involve the same action, target, context, and time elements. Studies with high correspondence, i.e., which measure intention for and subsequent engagement in the same behavior, are expected to result in higher correlations between intention and behavior, compared to studies that measure related but distinct intention and behavior. For example, in a study of Canadian university students facing tuition hikes, Kelloway et al. (2007) assessed intentions to rally at time 1, followed by self-reported participation in the aforementioned rally at time 2 (high correspondence). In contrast, in a study of collective action against the use of nuclear weapons, Fox-Cardamone et al. (2000) measured participants’ intentions to donate money to, invest time in, and obtain more information about a campaign against nuclear weapons, then later on observed whether participants signed a petition against nuclear weapons (low correspondence).

Findings for the moderating role of correspondence comes from both primary studies (e.g., Courneya, 1994) and meta-analysis (Downs & Hausenblas, 2005; Kraus, 1995) in health psychology. The evidence from this literature indicates that violation of the correspondence principle is associated with attenuated correlations between intention and behavior. Accordingly, our sixth meta-analysis also includes a moderator analysis examining whether correspondence between measures moderates the association between intention and behavior in collective action. We expected larger positive correlations for studies that feature high correspondence relative to low correspondence.

**Past Behavior**
The other predictor of collective action that we draw from the literature on self-regulation is past behavior. Past behavior has been shown to predict future behavior over and above intention in domains not related to collective action, in both primary studies (e.g., McGowan et al., 2013, for healthy eating; Strachan et al., 2016, for exercise behavior) and in meta-analyses (e.g., Gardner et al., 2011; Ouellette & Wood, 1998). Past behavior has a medium effect in predicting future behavior, ranging from $r = .39$ to $.46$ (Gardner et al., 2011; Ouellette & Wood, 1998).

While there have been no previous meta-analytic attempts to quantify the relationship between past behavior and future behavior across different forms of collective action, primary studies of activists and research on voter turnout are suggestive of a significant relationship. For example, in a study of Australian peace activists, Louis, Amiot, et al. (2016) showed that participation in pro-peace collective action significantly predicted subsequent pro-peace actions four weeks and eight weeks later. In another, longitudinal study of Black and White women alumnae of a US university, Cole and Stewart (1996) found that experiences of activism in university predicted political participation in midlife. Both primary (e.g., Aldrich et al., 2011) and meta-analytic (Smets & van Ham, 2013) research on voter turnout also point to the significant correlation between past and future behavior, at least in conventional actions like electoral participation. For our seventh meta-analysis, therefore, we present the first quantitative synthesis of the relationship between participation in past and subsequent collective action behavior. Based on findings for past behavior from other domains of self-regulation (Gardner et al., 2011; Ouellette & Wood, 1998), we expected a medium, positive correlation between past collective action behavior and future collective action behavior.

**Correspondence Between Past Behavior and Subsequent Behavior.** As in the relationship between intention and behavior, the principle of correspondence between the pairs of measures employed is likewise expected to moderate the association between past and subsequent collective action behavior (Fishbein & Ajzen, 2010). Studies with high correspondence, i.e., which measure the same past behavior and subsequent behavior
(e.g., past voting and subsequent voting), are expected to result in higher correlations compared to studies that measure related but distinct behaviors (e.g., past voting and subsequent protesting). Accordingly, the current meta-analysis examines whether correspondence between measures moderates the association between past and subsequent behavior in collective action. As with intention, we expected larger, positive correlations for studies that feature higher correspondence.

**Characteristics of the Collective Action as Moderators**

In addition to examining the relationship between collective action and the seven predictors, as well as the predictor-specific moderator effects outlined in the previous section, we also code for a wide array of conceptual and methodological features of primary studies to identify other moderators of the associations between collective action and its predictors. In particular, we explore the impact of the following characteristics of the collective action and of study methodology, across our seven meta-analyses.

**Specific Form of Collective Action**

Collective action comes in many forms (Hanna et al., 2016; Ratcliff & Hall, 2014; Theocharis & van Deth, 2016). These include a repertoire of behaviors like participating in protests and demonstrations, shouting slogans, wearing symbols like badges, and joining sit-ins (Tarrow, 2011; Tilly & Tarrow, 2015). Indeed, contentious behaviors like protesting are among the most visible and increasingly frequent forms of collective action across the world (Carothers & Youngs, 2015). From participation in the Arab Spring to attendance in Women’s Marches and pro-democracy rallies in Hong Kong and Chile, protest behaviors are at a record high globally.

Previous theorizing (e.g., van Stekelenburg & Klandermans, 2013) and meta-analysis (van Zomeren, Postmes, & Spears, 2008) of collective action have placed primacy on contentious political behaviors such as protesting, perhaps because of a traditional interest in disadvantaged groups seeking to challenge systems of inequality and injustice. Indeed, these previous approaches have equated collective action largely with protest, sometimes even using the two terms interchangeably (e.g., Klandermans, 1997). However, collective
action is not limited to protesting (Theocharis & van Deth, 2018). Much research has examined other behaviors that individuals can perform in order to advance group interests, such as signing petitions (Caren et al., 2011; Helson et al., 1958; Yasseri et al., 2017), boycotting and boycotting products (Copeland, 2014; Friedman, 1999; Kam & Deichert, 2020), donating money to political causes (Evers & Gesthuizen, 2011; Sandovici & Davis, 2010), and even institutionalized forms of political participation such as voting (Bruter & Harrison, 2017; Otjes et al., 2020; van Zomeren et al., 2018).

Recent theoretical attempts by political psychologists (Barrett, 2015; Barrett & Brunton-Smith, 2014; Emler, 2015) have argued that the range of political behaviors, from protesting to voting, may be integrated into and explained by the same system of psychological and societal factors. Scholars have noted, for example, that individuals can and do use votes and cast their ballots as a means to challenge the political status quo, express discontent with current policies, and advance particular group interests (a behavior called “protest voting”: Alvarez et al., 2018; Otjes et al., 2020).

The current meta-analyses therefore expand the forms of collective action reviewed to include not just protesting, but also behaviors such as signing petitions, boycotting/buycotting, donating money to political causes, and more institutionalized forms of political participation such as voting in elections and in referenda. Importantly, we also conduct moderator analyses to examine any differences in the association between the predictors and the different forms of collective action. We expected that the factors that predict contentious behaviors such as protesting would likewise be associated with other forms of collective action, such as signing petitions and voting.

**Type of Collective Action Measured: Intentions Versus Behaviors**

Primary studies on collective action measure either intentions or actual behaviors. As discussed earlier, while collective action research often uses intentions as a proxy for behavior, the two constructs are conceptually and empirically distinct. In addition, measures of actual behavior are likely influenced by a broader range of determinants than intentions, including situational constraints and random factors beyond individual control or prediction.
(e.g., van Zomeren, Postmes, & Spears, 2008), potentially resulting in different relationships with predictors. We therefore examine whether type of collective action measured (as intentions versus as behaviors) moderates the relationship between collective action and five predictors (perceived grievance, emotion, efficacy beliefs, group identification, and moral motives). Consistent with the above arguments, we expected smaller effect sizes for studies that measure collective action behaviors compared to intentions.

**Type of Collective Actor and Beneficiary of Collective Action**

Primary studies of collective action have traditionally focused on action by disadvantaged group members on behalf of their own group. This is perhaps due to the view that advantaged groups may not be motivated to act in ways that challenge social hierarchies and thereby erode their own group’s status, power, and influence. However, theorizing on political solidarity (e.g., Subašić et al., 2008), intergroup prosociality (e.g., Louis et al., 2019), and relative group advantage and support for equality (Iyer & Leach, 2010; Leach et al., 2002) point to how advantaged groups may take action to benefit disadvantaged outgroups. Indeed, more recent studies have examined collective action by advantaged group members on behalf of disadvantaged groups, as in the case of men acting for women and gender equality (e.g., Iyer & Ryan, 2009), White people supporting the Black Lives Matter movement (Selvanathan et al., 2018), or heterosexual allies advancing sexual minority rights (e.g., Russell, 2011). Collective action may also be taken by actors not positioned in status hierarchies, but based on a shared opinion or political position (i.e., opinion-based groups; Bliuc et al., 2007) to increase their own group’s influence in political matters, to publicize their position in a contested issue, or to boost their numbers. Finally, some studies may not specify particular actor or beneficiary groups when the collective action under investigation involves and ultimately serves the public at large, as in the case of general political participation by citizens in a democratic society (Emler, 2015; van Deth, 2014), or benefits general humanity, as in the case of climate change activism and pro-environmental collective action (Bamberg et al., 2015; Roser-Renouf et al., 2014).
Previous meta-analysis (van Zomeren, Postmes, & Spears, 2008) focused exclusively on predictors of collective action by the disadvantaged for their own group’s benefit. As discussed earlier, in the current meta-analysis, we expand the types of collective actors studied to include advantaged groups, opinion-based groups, and the public at large. As Mullen et al. (1992) have noted, a long line of research on ingroup bias would suggest that collective action that benefits one’s own group would exhibit stronger relationships between predictors and collective action outcomes, compared to collective action on behalf of outgroups (Brewer, 1999; Everett et al., 2015; Stroebe et al., 2005). On the other hand, theorizing from social movement theory predicts that political behaviors like collective action would be most potent when taken by opinion-based groups. Opinion-based grouping involves categorizing the social world into us who support the issue versus them who oppose it, making more salient the social and political contexts in which a grievance and the need for action are embedded (Simon & Klandermans, 2001; Stürmer & Simon, 2004a). Thus, in addition to expanding the types of collective actor groups in our review, we examine whether the type of collective actor (whether members of disadvantaged groups, advantaged groups, opinion-based groups, or the public at large) and the type of beneficiary of collective action (whether the ingroup, the outgroup, or the public at large) moderates the relationships between collective action and its predictors, in each meta-analysis.

**Normativity and Violence**

Studies of collective action distinguish between actions that are normative, i.e., conforming to the norms of the wider social system, such as attending union meetings or voting in a referendum, versus non-normative, ranging from nonviolent actions like sit-ins and occupying entrances to parliament, to behaviors of a more violent nature like destroying property or physically attacking police (Becker & Tausch, 2015; Stathi et al., 2019; Tausch et al., 2011). Theorizing around radical, non-normative, and violent collective action argue that such actions can be understood as driven by weak efficacy beliefs, particularly a sense of group powerlessness and inability to successfully access conventional means of political influence (Tausch et al., 2011). Additionally, such extremist forms of collective action may
also reflect a defensive response to threats to strongly held moral values (Ginges & Atran, 2009). The present meta-analyses therefore assess, for the first time, whether the normativity of action, and involvement of violence in action, moderate the associations between collective action and its predictors.

**Time and Material Cost**

Collective action, like any other volitional behavior, entails varying levels of time and material costs for the individual (Corcoran et al., 2015; McAdam, 1986; Wiltfang & McAdam, 1991). Examples of high-cost collective action include participating in strikes and riots, which require more time and material resources, compared to low-cost actions like signing a petition or wearing a political badge (Corcoran et al., 2015). Early theorizing on costs (e.g., McAdam, 1986) argued that motivational dynamics of collective action would be moderated by costs of engaging in the behavior. Individuals engaged in high-cost collective action may have a longer personal history of participation and be more deeply and morally committed to the ideology and goals of action around a cause (Corcoran et al., 2015; McAdam, 1986; Wiltfang & McAdam, 1991). We may therefore expect, for example, that moral motives, as well as past behavior, will be more strongly associated with taking action when that action entails high levels of cost. These claims have yet to be tested meta-analytically, therefore we include time and material cost as a potential moderator of the relationship between collective action and its different predictors in each meta-analysis.

**Habit Potential**

Some types of collective action, such as wearing everyday symbols like political badges (Sawer, 2007), attending regular consciousness-raising group meetings (Kravetz, 1978), or participating in an annual LGBT Pride parade (Peterson et al., 2018) are more conducive to repetition and habit. In contrast, other forms of collective action such as rioting (Jobard, 2009), performing in a flash mob (Walker, 2011), and even voting in a referendum (Mendelsohn & Parkin, 2001), by their nature, are highly episodic and in terms of opportunity relatively rare. Research and theorizing on habits suggest that when behaviors are performed frequently in relatively stable contexts, the development of habits is supported,
attenuating the impact of intention on behavior (Ouellette & Wood, 1998). We could expect smaller correlations between intention and collective action behavior when habit potential is high. Likewise, efficacy beliefs are thought to more strongly drive behaviors that require deliberation and planning, compared to behaviors that can be easily relegated to automatic repetition due to high habit potential (Bandura, 1977). We thus expect smaller correlations between efficacy beliefs and collective action when habit potential is high. In the present meta-analyses, we examine for the first time the moderating effect of habit potential (the presence of multiple opportunities and stable contexts to enact a behavior; Webb & Sheeran, 2006) on the relationships between collective action and its predictors.

Anonymity

Some forms of collective action can be performed in private settings where there is little possibility of being identified by observers (e.g., anonymously donating money to social movement organizations), while other collective action behaviors are by their very definition not anonymous (e.g., signing petitions, political lobbying, participating in strikes). The moderating role of anonymity in collective action is unclear. One argument based on social dilemmas suggests that anonymity reduces individual accountability and gives rise to the free-rider problem (Kollock, 1998), and hence should reduce collective action. Other lines of theorizing based on the social identity model of deindividuation (Reicher, Spears & Postmes, 1995) suggest that anonymity increases group salience, including the group interests central to collective action, thus potentially increasing engagement. In the current meta-analyses, we attempt to resolve this debate by testing whether anonymity moderates the association between collective action and its various predictors.

Number of Actors

Social psychological research studies locate collective action in the psychology of the individual (Wright, 2009); that is, collective action can be taken by one person who is acting on behalf of group interests (e.g., signing a petition, casting a vote, boycotting a product) or by multiple people engaged in a coordinated fashion (e.g., protesting, organizing political meetings, going on strike). The traditional conceptualization of collective action with its
emphasis on the internal individual-level psychological dynamics of collective action, tends to downplay the role of co-participation (the presence of co-actors). In contrast, theories of crowd dynamics and collective action (e.g., the elaborated social identity model; Drury & Reicher, 2009) emphasize the role of participation in actual group events in generating collective empowerment and social change. In the current meta-analyses, we examine for the first time whether the number of actors typically required to take collective action (i.e., one person, as in signing a petition or voting, versus multiple people, as in attending a public demonstration or meeting) moderates the relationship between collective action and its predictors.

**Online Versus Offline Collective Action**

It is unclear whether the associations between collective action and its predictors are equivalent for online behaviors (e.g., participating in political discussions on social media; Odağ et al., 2016; digital activism; Joyce, 2010) versus more traditional, offline collective action (e.g., participating in protests). With the rapid rise of digital forms of collective action and Internet activism (Earl et al., 2010), some scholars (e.g., Bennett & Segerberg, 2012) have argued that digital media has fundamentally changed the nature and dynamics of collective action. These changes include the creation of new, often low-cost, forms of collective action behaviors, the diminished role of formal social movement organizations, and the increased centrality of individual self-expression as a feature of collective action behavior. Other theorists (e.g., Tarrow, 2011) are more skeptical and view Internet-based collective action as simply extensions of their offline counterparts, with no difference in their underlying mechanisms. We therefore examine, for the first time, whether the relationship between collective action and its predictors differs as a function of whether action is conducted online versus offline.

**Methodological Characteristics as Moderators**

**Number of Actions Measured**

Studies vary in terms of the number of collective actions participants are asked about, from single-action measures (e.g., intentions to protest only; Kearns et al., 2018) to
multiple-action measures (e.g., intentions to protest, sign petitions, and speak out publicly, aggregated into one scale; Kende et al., 2018). Research on attitudes shows larger correlations with behavior when using multiple-action measures (Fishbein & Ajzen, 1974) and, accordingly, we may expect multiple-action measures to prompt stronger associations between collective action and its predictors. It has been argued that measures tapping into many actions will represent a wider sampling of the behavioral domain and accordingly will avoid the problem of range restriction and thus yield larger correlations. The current meta-analyses therefore test, for the first time, whether the number of actions measured moderates the associations between collective action and its predictors.

**Self-Reported Versus Observed Action**

Most studies in psychology and, by extension, psychological studies on collective action, rely on self-reports of behavior (Baumeister et al., 2007). Self-reports are easy to administer, information-rich, and sometimes the only method available, for example, in assessing behaviors done in private. On the other hand, the disadvantages of self-reports are well-known (Paulhus & Vazire, 2007). These include measurement artifacts, the question of accuracy and credibility, limitations in memory, and response sets such as social desirability that affect the validity of such measures. We sought to determine whether this methodological distinction moderates the associations between predictors and collective action behavior in order to evaluate the criticisms of relying on self-reports, for studying collective action behavior. Specifically, we compare studies that used self-report measures of collective action behavior versus studies where researchers directly observed engagement in collective action behavior.

**Study Design: Correlational Versus Experimental Studies**

Given the challenge of experimentally manipulating the multiple predictors of collective action as well as measuring the more complex forms of collective action, we expect the majority of collective action studies to be correlational in design. We will attempt to examine whether the association between collective action and its predictors is moderated by study design, specifically comparing correlational studies versus
experimental/quasi-experimental studies (where a predictor of collective action is deliberately manipulated in an experimental fashion and a higher degree of causality may be inferred). Previous meta-analysis (van Zomeren, Postmes & Spears, 2008) found no significant differences in effect sizes in studies that allowed causal inferences (i.e., experimental/quasi-experimental) versus studies that did not (i.e., correlational), therefore we did not expect significant moderation.

**Time Interval: Cross-Sectional Versus Longitudinal Studies**

We also assess any differences in effect sizes as a function of the time interval of the study (cross-sectional versus longitudinal designs). Longer time intervals may impact on correlations between collective action and predictors, for example, through a change in the original predictor (e.g., a decay in intention) or the introduction of extraneous events that affect the enactment of a behavior. For example, in the health psychology literature, larger time intervals are associated with a weaker correlation between intentions and behavior, e.g., in the case of condom use (Sheeran & Orbell, 1998). However, one meta-analysis that looked at various health, school, and consumer behavior suggests that this moderating effect of time interval is not statistically significant, at least for the relationship between intention and behavior (Randall & Wolff, 1994). In the current meta-analyses, we compare cross-sectional (predictor and collective action measured at the same time point) versus longitudinal (predictor and collective action measured at the different time points) to determine whether time interval has a significant moderating effect.

**Sample Characteristics: Age, Gender, and Student Status**

Finally, previous studies suggest that sample characteristics such as age, gender, and student status may play a role in collective action. The biographical availability hypothesis (Beyerlein & Hipp, 2006; Petrie, 2004), for example, argues that certain personal characteristics (such as being younger, being male, and being a student) interact with collective action predictors to mobilize group members to action due to increased exposure to social movement recruitment, greater access to resources, and fewer competing demands.
for time. We therefore examine age, gender, and student status to determine whether they significantly moderate the relationship between collective action and its predictors.

**The Present Research**

Although a great deal of primary studies, as well as two published meta-analyses, have been conducted on the predictors of collective action by disadvantaged groups within and outside of social psychology, the empirical literature on collective action by other collective actor groups remains to be synthesized. Likewise, while collective action studies often rely on intention as a proxy for behavior, the actual association between collective action intention and collective action behavior has yet to be investigated in a meta-analysis. The present research aims to address these gaps by employing meta-analytic techniques on a large dataset of studies to estimate the associations between collective action and social psychological predictors, as well as predictors from the literature on self-regulation in seven separate meta-analyses. We also evaluate various conceptual and methodological factors that may moderate the direction and size of these associations.

**Method**

**Literature Search**

We conducted a systematic search in March 2018 using a list of search terms relating to collective action in titles, abstracts, and keywords. Search terms used in a previous meta-analysis of collective action by disadvantaged groups (van Zomeren, Postmes, & Spears, 2008) were adapted and expanded. We ran a broader search of the literature in social psychology and allied social science disciplines in order to encompass a wider range of forms of collective action not included in previous meta-analyses of collective action (e.g., conventional acts like voting and political participation), add more predictors of collective action (e.g., discrete emotions, moral motives), integrate constructs from the literature on self-regulation (e.g., behavioral willingness, past behavior), and cover more collective actor groups (i.e., advantaged groups, opinion-based groups, and the public at large). Search protocols were based on three substrings: (1) keywords related to collective and political behavior: **collective action, protest, political action, political participation,**
activism, political engagement, and social movement participation, (2) keywords related to predictors: grievance, injustice, unfairness, deprivation, efficacy, agency, instrumentality, identity, identification, solidarity, anger, emotion, SIMCA, moral conviction, and moral motives, and (3) keywords related to action outcomes: behavior, intention, willingness, expectation, prediction, readiness, preparedness, tendency, goal, attitude, support. We searched three electronic databases: Scopus, Web of Science, and PsycINFO. The search also included the studies synthesized in a previous meta-analytic review of collective action by disadvantaged groups (van Zomeren, Postmes, & Spears, 2008), as well as articles subsequently citing that review using a forward search procedure. No restrictions based on publication year or language were imposed; studies not in English were included, subject to translation through digital applications (Google Translate) and resources available at the authors’ university. Full details of the search protocol for this systematic review were preregistered on the Open Science Framework on 14 February 2018 (see https://osf.io/mrwng/?view_only=f0a4b2c7423d40e280d2917ea3558bd1 for an anonymous version).

After removing duplicates, screening of search results was conducted in two stages. For the first stage, the titles and abstracts of the remaining articles (8,189 records) were screened by the first author, against the inclusion and exclusion criteria detailed below. As a reliability check, a 10% sub-sample (819 records) were independently assessed for inclusion by two co-authors (5% each). Using standard guidelines (Cohen, 1960; Landis & Koch, 1977), inter-rater agreement was substantial (88%, κ = .61) and disagreements were resolved through discussion. This stage resulted in 1,057 records.

For the second stage, the full texts of the 1,057 papers were screened by the first author, against the inclusion and exclusion criteria. Again, a 10% sub-sample (108 papers) were independently assessed for inclusion by two co-authors (5% each). Interrater agreements were again substantial (90%, κ = .71) and any disagreements were resolved through discussion. This stage resulted in 608 papers eligible for meta-analysis.
The search was updated in May 2019 using the search protocols outlined above, yielding 1,373 records. After removal of duplicates, an additional 1,067 titles and abstracts were screened against the inclusion and exclusion criteria by the first author. This resulted in 252 full-text articles, which were then screened against the inclusion and exclusion criteria by the first author. This stage resulted in the inclusion of an additional 88 papers.

Figure 1 presents the flow of the search process. The final sample consisted of 632 full-text papers that included a total of 1,319 correlations between collective action and relevant predictors. Included articles are marked with an asterisk in the References section.

**Inclusion Criteria and Eligibility**

To be eligible for inclusion in the systematic review, studies had to: (1) be an empirical study, (2) employ a quantitative design, (3) analyze variables at the individual person level, (4) include at least one measure of collective action intention and/or collective action behavior, and (5) include at least one of the seven predictors of interest in the review, i.e., perceived grievance, emotion, group identification, efficacy beliefs, moral motives, intention, and past behavior, and (6) report sufficient statistical information to extract the necessary effect size (i.e., a bivariate correlation coefficient between collective action and a predictor). We included both correlational (e.g., cross-sectional and longitudinal studies that measured collective action and at least one relevant predictor) as well as experimental studies that manipulated some factor that affected collective action as an outcome. However, experimental studies in which collective action behavior itself was manipulated (e.g., procedures where participants were made to audio-record a voice message protesting government action, after which particular outcomes were measured; Becker, Tausch & Wagner, 2011) were included only if they also incorporated measures of subsequent collective action. In the case of incomplete effect size reporting, authors were contacted via email to request the relevant statistical information. A total of 613 requests from both runs of the search were sent out, out of which we received 104 responses (17%) with effect sizes that could be included in the review.
Excluded were single-N case studies with no quantitative measures such as biographical analysis of individual activists (e.g., Fullam, 2016), descriptive studies such as analysis of social representations of collective action (e.g., Cárdenas & Blanco, 2006), evaluation studies of a particular social movement campaign or organization (e.g., Wilkin et al., 2015), and qualitative designs such as ethnographic studies of protest events (e.g., Bruce, 2013) and analysis of textual data such as protest songs (e.g., Jakes, 2013). We also excluded empirical studies that investigated collective action behavior not at the individual level but at larger, aggregate levels, for instance, referendum outcomes at the jurisdiction level (e.g., Becker et al., 2017), or historical analysis of social movements as a whole (e.g., Tracy, 1999).

Additional specific inclusion criteria were also applied for certain meta-analytic subsets. For the meta-analysis examining the relationship between intention and behavior, studies had to measure intention prior to measuring behavior, following the principle of intention as an antecedent to subsequent behavioral outcomes (Armitage & Conner, 2001). Studies where collective action intention and behavior were assessed in a manner that violated this order or where sequentiality could not be established were therefore excluded, e.g., studies that assess intention and previous participation in collective action behavior (e.g., Liu et al., 2010; Giguère et al., 2012).

**Non-Independent Observations.** Several studies reported more than one correlation between collective action and a predictor for the same group of participants. For example, some studies measured two or more kinds of collective action from the same participants, such as taking flyers and signing a petition (Becker & Wright, 2011, study 2). Other studies measured two or more variants of the same predictor from the same sample, for example: moral conviction and moral obligation (Sabucedo et al., 2018). And finally, other studies measured collective action at more than one time point (e.g., De Weerd & Klandermans, 1999; Louis et al., 2016; Schmitt et al., 2019).

However, effect size multiplicity in primary studies introduces statistical dependency into the meta-analytic data set and can lead to misleading results if those effect sizes
contributed by the same participants are treated as statistically independent (López-López et al., 2018). We therefore employed two strategies to address this. For the main analyses estimating summary effects, we pooled multiple effect sizes from the same participants into one average $r$ to avoid statistical interdependence (Borenstein et al., 2009). In cases where multiple effect sizes were informative for a particular moderator analysis (i.e., multiple effect sizes were available that corresponded to different levels of the moderator), effect sizes were included to preserve moderator data in that specific analysis. However, to avoid underestimating error variance associated with each effect size, the sample sizes used to compute the standard errors for each effect size were adjusted by dividing the total sample size by the number of times they were included in the relevant moderator analysis (Higgins & Green, 2011, Section 16.5.4; Wood et al., 2016).

**Data Extraction and Calculation of Effect Sizes**

Following previous meta-analytic work both on collective action (e.g., Smith et al., 2012; van Zomeren, Postmes, & Spears, 2008) and on intentions and behavior (e.g., Armitage & Conner, 2001; McEachan et al., 2016), we expected most studies to be correlational and therefore used the bivariate correlation coefficient $r$ as the effect size of choice to assess the independent relationship between collective action and each predictor. In these cases, effect sizes were extracted as reported in full-text articles’ table of zero-order correlations. Statistical information other than $r$ (e.g., t-tests) were converted into $r$ by Comprehensive Meta-Analysis software (version 3.3.070; Borenstein et al., 2014). When information to compute bivariate correlations was unavailable, we contacted authors to request effect sizes. Effect size extractions were conducted by the first author, with two co-authors independently extracting data from a 10% sub-sample (5% each) of the eligible studies from the first literature search (47 papers) as a reliability check. Inter-rater agreement was substantial (93%, $\kappa = .91$) and disagreements were resolved through discussion.

**Moderator Coding**
We coded for characteristics of the predictor, characteristics of the collective action outcome, and methodological characteristics. The first author coded all moderators, and two co-authors again independently coded a 10% sub-sample (5% each) of the eligible studies from the first literature search (47 papers). Overall, initial inter-rater agreements were substantial (88%, κ = .79); inter-rater reliabilities for each moderator are presented below. All discrepancies were resolved through subsequent discussion, with full agreement reached in every case.

**Predictor Characteristics**

We coded for characteristics specific to the five predictors of collective action from the social psychological literature on collective action: type of perceived grievance, type of emotion, type of group identification, type of efficacy beliefs, and type of moral motives. We also coded for characteristics specific to the three predictors from the self-regulation literature, specifically: type of intention, degree of correspondence between intention and behavior, and degree of correspondence between past behavior and subsequent behavior.

**Type of perceived grievance.** The type of perceived grievance, particularly type of injustice, was categorized as *procedural injustice, distributive injustice, or general injustice*. Perceived grievance was coded as procedural injustice if the study involved measures that tapped into perceived unfairness of how a group was treated (e.g., items such as “When university administrators make decisions about tuition fee increases, the concerns of students are considered”, reverse-scored such that higher scores indicate greater perceived grievance; Kelloway et al., 2007) or a manipulation where participants are made to feel that a group has been treated unfairly (e.g., being told about an upcoming increase in tuition fees without prior student consultation; Shi et al., 2015). In contrast, perceived grievance was coded as distributive injustice when perceptions of unfair outcomes were measured (e.g., with items like “Proposed tuition increases are fair given the high cost of running a post-secondary institution,” later reversed to the injustice direction; Kelloway et al., 2007) or manipulated (e.g., videos that emphasize existing wealth inequality among social groups; Hoyt et al., 2018). Studies that measured perceptions of injustice using a combination of
procedural and distributive injustice items or made no distinction between the two were coded as general injustice. Inter-rater agreement was substantial (κ = .95).

**Type of Emotion.** Emotions were classified along two ways: (1) as discrete emotions, and (2) as general dimensional emotions differentiated by valence (Harmon-Jones et al., 2017). For discrete emotions, we coded the specific discrete emotion measured or manipulated in a study. These included: anger (including outrage), fear, guilt, sympathy, hope, sadness, shame, anxiety, contempt, frustration, discontent, hopelessness, pride, angst, anticipated pride, anticipated regret, enjoyment, enthusiasm, admiration, anticipated anger, anticipated guilt, anticipated shame, hate, humiliation, resentment, worry, distress, elevation, empowerment, nostalgia, and pleasure. For dimensional emotions, we coded studies that did not measure specific discrete emotions but rather measured them as broadly negative affect or positive affect. Inter-rater agreement was perfect (κ = 1.00).

**Type of Group Identification.** Group identification was coded as *politicized*, for studies that measured identification with a particular social movement (using items such as “I feel strong ties with other activists of the MoVimento Cinque Stelle”; Alberici & Milesi, 2013), with politicized groups such as labor unions (e.g., Frege, 1996), or with a particular activist label (e.g., as a feminist, Duncan, 2010; as a heterosexual ally, Wilkinson & Sagarin, 2010). Other studies that measured identification with social groups that were not associated with political movements were coded as *non-politicized*, e.g., identification as women (Friedman & Ayres, 2013) or as students (Zhang et al., 2012). Inter-rater agreement was perfect (κ = 1.00).

**Type of Efficacy Beliefs.** Perceived efficacy was classified as either *group efficacy* (i.e., beliefs about the group working together to successfully engage in collective action and contribute to social change), *individual efficacy* (i.e., beliefs about the self as successfully engaging in and contributing to collective action and social change), *action efficacy* (i.e., beliefs focused on the collective action behavior and the response it could engender from the social system), or mixed. For a number of studies that made reference to “political efficacy” (e.g., Diemer & Rapa, 2016; Schur, 2003; Varnali & Gorgulu, 2015), we coded
internal efficacy as individual-focused and external efficacy as action-focused. Inter-rater agreement was substantial ($\kappa = 0.76$).

**Type of Moral Motive.** Moral motives were coded as measuring *moral conviction* when they asked if a particular social issue was part of participants’ fundamental beliefs about right and wrong, for example, “My attitude about gay marriage is closely related to my core moral values and convictions” (Skitka & Bauman, 2008). In contrast, moral motives coded as *moral obligation* tapped into participants’ perception of duty or responsibility to act, for example, “How much do you feel a moral obligation to participate in the strike?” (Morgan, 2011). Inter-rater agreement was substantial ($\kappa = 0.93$).

**Type of Intention.** For studies that measured intention, we coded for type of intention as *behavioral intention* (traditional measures of goals, plans, self-instruction, and commitment for future collective action, e.g., “I intend to support the plight of Syrian refugees by donating money to the cause”: Thomas et al., 2019), *behavioral expectation* (predictions of the likelihood of participating in future collective action, e.g., “How likely are you to participate in pro-choice feminist collective action?”: Jasko et al., 2019, study 3), or *behavioral willingness* (openness and receptivity to opportunities to participate in future collective action, e.g., “How willing would you be to send a letter of protest to government?”: Leach et al., 2006). Inter-rater agreement was substantial ($\kappa = 0.73$).

**Correspondence Between Intention/Past Behavior and Subsequent Behavior.** For the meta-analysis of the relationship between collective action intentions and collective action behaviors, correspondence between intention and behavior measures was coded as high or low. Ideally correspondence would have been coded on a 4-point scale corresponding to Fishbein and Ajzen’s (2010) action-target-context-time framework; however, many studies did not report sufficient level of measurement detail to permit such granular coding. Thus, correspondence between intention and behavior measures was coded as a dichotomous variable. Correspondence was coded as high when the intended behavior and the subsequent enacted behavior were measured using the same action, target, context, and time. An example comes from Blackwood and Louis (2012), who
measured intentions to engage in five collective action behaviors in the next four weeks and then measuring self-reported engagement in those same five behaviors a month later. In contrast, correspondence was coded as low when measured intentions were unmatched in action, target, context, or time to the behaviors measured subsequently. For example, measuring intentions to engage in seven different behaviors and then subsequently measuring only petition-signing (van Zomeren et al., 2013, study 3). The correspondence between measures of past and subsequent behavior was coded similarly. Inter-rater agreement was substantial for correspondence between intention and behavior ($\kappa = 0.85$) and between past behavior and subsequent behavior ($\kappa = 0.95$).

**Characteristics of the Collective Action**

Collective action characteristics were coded according to the following dimensions: specific form of collective action, type of collective action measured, type of actor, beneficiary of the collective action, normativity, violence, time cost, material cost, habit potential, anonymity, number of actors, and online versus offline action.

**Specific Form of Collective Action.** The specific form of collective action was coded as one of the following: joining a protest, signing a petition, boycotting/buycotting, donating money, voting, discussing a social issue, communicating with policymakers, participating in union activity, volunteering for a political organization, obtaining flyers, posting on social media, wearing a badge/symbol, running for office, and completing a researcher-created task. Inter-rater agreement was substantial ($\kappa = .87$).

**Type of Measurement of Collective Action.** Collective action measurement was classified as either *intention* (broadly defined as any form of intention to engage in collective action) or *behavior* (previous or ongoing participation in collective action). Inter-rater agreement was substantial ($\kappa = .92$).

**Type of Collective Actor.** The type of group taking action was classified as *disadvantaged group* (including various low-status and historically marginalized groups such as women, sexual minorities, ethnic minorities, etc.), *advantaged group* (high-status groups such as White people), *opinion-based group* (groups sharing an opinion in a particular social
issue, e.g., anti-poverty), or public at large (e.g., the general electorate). Inter-rater agreement was substantial (κ = 0.73).

**Beneficiary of the Collective Action.** The target beneficiary of the collective action was coded as either: ingroup (e.g., women acting to advance women’s interests; Zaal et al., 2011), outgroup (e.g., men acting to advance rights for women; Ochoa et al., 2019), or the public at large (e.g., citizens acting to advance democracy for all; Chan, 2016a; students engaged in pro-environmental activism, Schmitt et al., 2019). Inter-rater agreement was substantial (κ = .75).

**Normativity.** Collective actions were classified as normative if they generally conformed to the norms of the wider social system, for example, voting in a referendum (Grant et al., 2017) or signing a petition (Miller et al., 2009), or as non-normative if they represented a breach of societal rules, for instance, engaging in civil disobedience (Swank & Fahs, 2013) or obstructing access to public buildings (Pender et al., 2019). Studies that measured multiple forms of collective action with varying levels of normativity were coded as mixed. Inter-rater agreement was substantial (κ = .70).

**Violence.** Collective action outcomes were coded as violent if they involved acts of aggression and harmful intent (e.g., willingness to engage in a physical fight; Besta et al., 2015; willingness to damage property; Phalet et al., 2010) or as non-violent if they involved peaceful acts such as petition-signing or donating money. Studies that measured multiple forms of collective action including both violent and non-violent acts were coded as mixed. Inter-rater agreement was substantial (κ = .79).

**Time and Material Costs.** The costliness of engaging in the collective action was coded as time cost (low, moderate, or high) and material cost (low, moderate, or high). For time cost, collective action that could be accomplished in up to a few minutes (e.g., signing a petition, making a donation) was coded as low, while those that required an hour to a few days (e.g., attending a march, participating in a meeting) were moderate, and those that required weeks up to years (e.g., working in a social movement organization) were coded as high. Inter-rater agreement was moderate (κ = .54). For material cost, collective action that
could be done for free or cost up to an hour’s wage (e.g., emailing a policymaker, obtaining a flyer) were coded as *low*, while those that incurred up to a day's wages spent or lost (e.g., going to a rally) were *moderate* and those that incur costs equivalent to multiple days’ wages (e.g., going on strike) were coded as *high*. Studies that measured multiple forms of collective action with varying costs were coded as moderate. Inter-rater agreement was again moderate (κ = .48). All disagreements, mostly stemming from the difficulty in assessing costs of performing the action without much contextual information, were resolved through subsequent discussion.

**Habit potential.** The conduciveness of an action for habit formation was judged based on the frequency and stability of opportunities to engage in the collective action and classified as *low* (the collective action is rare and may take place at a different place each time with little or no forewarning, e.g., violent protest) or *high* (the collective action can be done with high frequency, weekly or even daily, in similar or same contexts that permits routine, e.g., wearing a political band or displaying equality symbols in one’s workspace). Studies that measured multiple forms of collective action with varying levels of habit potential were coded as mixed. Inter-rater agreement was substantial (κ = .66).

**Anonymity.** Collective action was coded as *anonymous* if the action is taken with little or no need to be identified by others (e.g., donating money for a political cause, obtaining information about an activist organization) or *not anonymous* if they involve or even require being identified (e.g., signing petitions, talking to a policymaker). Studies that measured multiple forms of collective action with differing levels of anonymity were coded as *mixed*. Inter-rater agreement was moderate (κ = .48); disagreements, primarily stemming from the difficulty in assessing anonymity of real-world actions with little contextual information, were resolved through subsequent discussion.

**Number of Actors.** The number of actors (one person versus multiple people) was indexed by classifying whether the collective action could be minimally conducted by a single individual acting on behalf of group interests (e.g., signing a petition, casting a vote) or is typically taken as a group of people engaged in a coordinated fashion (e.g., protesting,
organizing political meetings). Studies that measured multiple forms of collective action that could variably be done individually or in groups were coded as mixed. Inter-rater agreement was substantial (κ = .76).

**Online Versus Offline Action.** Finally, we coded collective action as online when it was conducted in cyberspace (e.g., participating in political discussions on social media, Odağ et al., 2016; hacking and sending email bombs, Brunsting & Postmes, 2002) or offline for those that take place in physical settings (e.g., banging pots and pans in support of a protest, Odağ et al., 2016; throwing agricultural products in front of government buildings, Sabucedo et al., 2000). Studies that measured multiple forms of collective action encompassing behaviors that could be conducted online or offline were coded as *mixed*. Inter-rater agreement was substantial (κ = .68).

**Methodological Characteristics**

The following data were also extracted from each study: number of actions measured, self-reported versus observer behavior, study design, time interval, and sample characteristics.

**Number of Actions Measured.** Studies were classified as employing either single-action measures (only one collective action assessed, for example, voting for an indigenous people’s political party; Greaves et al., 2018) or multiple-action measures (two or more collective actions assessed simultaneously, e.g., 17 different forms of political participation combined into one score; Cole & Stewart, 1996). Inter-rater agreement was substantial (κ = .83).

**Self-Reported Versus Observed Action.** For studies that employed a behavioral measure of collective action, we classified the measurement of collective action behavior as either self-reported (e.g., participants’ reports of having attended a protest; Kelloway et al., 2007) or observed (e.g., participants’ presence in a public demonstration; van Stekelenburg & Klandermans, 2014). Inter-rater agreement was perfect (κ = 1.00).
**Correlational Versus Experimental Studies.** Study design was coded as either correlational (all predictors were measured) or experimental (one or more predictors were deliberately manipulated). Inter-rater agreement was substantial ($\kappa = .92$).

**Time Interval.** Studies were classified as either cross-sectional (data collected at only one time point) or longitudinal (data collected at two or more time points). Inter-rater agreement was substantial ($\kappa = .65$).

**Sample Characteristics.** Finally, the characteristics of the study sample were recorded as follows: age (mean age of the sample), gender (% female composition in the sample), and student status (student, non-student, or mixed). Inter-rater agreements were substantial for age ($\kappa = .88$), and gender ($\kappa = .91$), and moderate for student status ($\kappa = .60$).

**Analytic Strategy**

We employed a random-effects model using Comprehensive Meta-Analysis software (CMA: version 3.3.070; Borenstein et al., 2014) to compute summary effect sizes and conduct separate meta-analyses for each of the predictors in the review. As a large proportion of studies in collective action are correlational, our effect size of choice was the correlation coefficient $r$. Following standard procedures for meta-analysing correlation coefficients (Lipsey & Wilson, 2001), we used correlations transformed in CMA into Fisher’s $Z$-values weighted by the inverse of the variance for synthesis, with larger samples given more weight, and then transformed back into standard correlational form for ease of interpretation. Using guidelines by Cohen (1992) to interpret the magnitude of correlation coefficients, effect sizes of .10 to < .30 were considered as small, .30 to < .50 as medium, and $\geq .50$ as large. To assess heterogeneity of effect sizes, we examined Cochran’s (1952) $Q$ statistic, which tests the null hypothesis that the effect sizes are the same from study to study, and the $I^2$ statistic (Higgins & Thompson, 2002), which quantifies the percentage of total variation across studies that is due to heterogeneity rather than to chance. A significant $Q$ statistic indicates the presence of significant heterogeneity across studies, while $I^2$ values of 25%, 50%, and 75% suggest low, moderate, and high amounts of heterogeneity, respectively (Higgins et al., 2003).
Moderator Analysis

Random-effects subgroup analyses were used to assess the moderating effect of categorical variables. Moderator analyses were conducted only when at least two levels of a moderator included a minimum of five effect sizes, based on minimum threshold recommendations (Fu et al., 2011; Deeks et al., 2019). Moderator analyses of continuous moderators were conducted using the random-effects method of moments meta-regression. We assessed the statistical significance of moderators using $Q$ tests analogous to ANOVAs, wherein a significant between-groups $Q$ signifies that effect sizes differ significantly as a function of the moderator variable (Borenstein et al., 2009).

Publication Bias

Publication bias for each separate meta-analysis was examined in three ways. First, we visually inspected each funnel plot for evidence of asymmetry. Second, we evaluated whether any asymmetry was statistically significant using Egger’s regression test (Egger et al., 1997). Finally, we used Duval and Tweedie’s (2000) trim-and-fill procedure, which detects and imputes probable missing effect sizes in the funnel plot and recomputes a summary effect size adjusted accordingly.

Results

Overall Effect Sizes, Heterogeneity, and Publication Bias

Perceived Grievance

The meta-analysis of the correlation between perceived grievance and collective action was conducted on 227 tests, with a total sample size of 614,813. Using a random-effects model, the mean effect size was .25, with confidence intervals not including zero (95% CI [.23, .27]) (see Table 1). This indicates that grievance has a small, positive, and significant correlation with collective action. There was evidence of significant heterogeneity in effect sizes ($Q = 6570.64, p < .001$). The $I^2$ value was 96.56%, which constitutes a high amount of heterogeneity. Examination of the funnel plot suggested that effect sizes were not symmetrically distributed, such that there was a disproportionate concentration of studies with larger effect sizes. This was confirmed by Egger’s regression
test \((p < .001; \text{Egger et al., 1997})\). Using a random-effects model, Duval and Tweedie's (2000) trim and fill method revealed evidence of publication bias, with inclusion of 62 putative missing studies resulting in a lower estimated effect size than the original analysis, \(r_s = .15, 95\% \text{ CI} [.13, .16]\). However, interpretation of the adjusted mean effect size is similar to the unadjusted mean effect size, in that the correlation between grievance and collective action remains positive, small in magnitude, and significantly different from zero. Accordingly, the influence of publication bias can be interpreted as modest rather than severe (Rothstein et al., 2005).

**Type of Perceived Grievance.** Subgroup analysis (see Table 2) showed no significant effect of type of perceived grievance on the correlation between perceived grievance and collection action \((Q = 2.97, p = .226)\). Distributive injustice had a medium, positive correlation with collective action \((r_s = .39, 95\% \text{ CI} [.26, .51])\), while both procedural injustice \((r_s = .26 \ (95\% \text{ CI} = [.18, .34])\) and mixed types of injustice \((r_s = .26, 95\% \text{ CI} = [.19, .34])\) had small, positive correlations. All effect sizes were significantly different from zero.

**Emotion**

The meta-analysis of the correlation between emotion and collective action was conducted on 273 tests, with a total sample size of 111,683. Using a random-effects model, the mean effect size was .33, with 95% confidence intervals not including zero \((95\% \text{ CI} [.30, .36])\) (see Table 1). This indicates that emotion has a medium, positive, and significant correlation with collective action. There was evidence of significant heterogeneity in effect sizes \((Q = 6006.16, p < .001)\). The value of \(I^2\) was 95.47%, indicating high heterogeneity. Examination of the funnel plot suggested that effect sizes were not symmetrically distributed, such that there was a slight concentration of studies with smaller effect sizes. However, Egger's regression test (Egger et al., 1997) revealed no significant asymmetry \((p = .230)\).

**Type of Emotion.** Two subgroup analyses (see Table 3) were conducted, first comparing types of discrete emotions (e.g., anger, guilt, hope) and the second comparing types of general affect (positive, negative). Results showed that the type of discrete emotion moderated the relationship between emotion and collective action \((Q = 79.20, p < .001)\).
Medium, positive correlations that were significantly different from zero were found for studies that measured anger ($r = .38, 95\% \text{ CI} [.35, .41]$), shame ($r = .41, 95\% \text{ CI} [.23, .56]$), sympathy ($r = .38, 95\% \text{ CI} [.28, .47]$), discontent ($r = .32, 95\% \text{ CI} [.11, .51]$), and guilt ($r = .30, 95\% \text{ CI} [.21, .39]$). Small, positive correlations that were significantly different from zero were observed for studies that measured hope ($r = .25, 95\% \text{ CI} [.12, .37]$) and sadness ($r = .21, 95\% \text{ CI} [.04, .36]$). Correlations for studies that measured fear ($r = .01, 95\% \text{ CI} [.00, .20]$), anxiety ($r = -.07, 95\% \text{ CI} [-.25, .12]$), and frustration ($r = -.18, 95\% \text{ CI} [-.36, .02]$) were not significantly different from zero. Examination of confidence intervals indicated that all emotions with significant effects (anger, shame, sympathy, discontent, guilt, hope, and sadness) had overlapping intervals, suggesting that effect sizes were not significantly different from one another. Instead, the moderator effect of emotion appears driven by largely non-overlapping confidence intervals between the above emotions and anxiety and frustration.

In contrast, type of general affect did not moderate the relationship between emotion and collective action ($Q = 0.07, p = .789$). Small, positive correlations that were significantly different from zero were found for both negative affect ($r = .26, 95\% \text{ CI} [.15, .37]$) and positive affect ($r = .29, 95\% \text{ CI} [.15, .41]$).

**Group Identification**

The meta-analysis of the correlation between group identification and collective action was conducted on 349 tests, with a total sample size of 133,147. Using a random-effects model, the mean effect size was .35, with 95\% confidence intervals not including zero (95\% CI [.32, .37]) (see Table 1). This indicates that group identification has a medium, positive, and significant correlation with collective action. There was evidence of significant heterogeneity in effect sizes ($Q = 7723.26, p < .001$). The value of $I^2$ was 95.49\%, indicative of high heterogeneity. Examination of the funnel plot suggested that effect sizes were not symmetrically distributed, such that there was a concentration of studies with smaller effect sizes. This was confirmed by Egger’s regression test ($p < .001$; Egger et al., 1997). Using a random-effects model, Duval and Tweedie’s (2000) trim and fill method
imputed 54 missing studies, resulting in a higher estimated effect size ($r = .40$, 95% CI = [.38, .43]). However, no substantial changes in interpretation are warranted, as the correlation between group identification and collective action remained positive, medium in magnitude, and significantly different from zero.

**Type of Group Identification.** Subgroup analyses (see Table 4) indicated that type of group identification moderated the relationship between identification and collective action ($Q = 82.89, p < .001$). Identification with politicized groups was more strongly correlated with collective action with a medium, positive correlation ($r = .47$, 95% CI [.44, .50]), relative to identification with non-politicized groups which showed a small, positive correlation ($r = .27$, 95% CI [.25, .30]). Both effect sizes were significantly different from zero.

**Efficacy Beliefs**

The meta-analysis of the correlation between efficacy beliefs and collective action was conducted on 333 tests, with a total sample size of 341,973. Using a random-effects model, the mean effect size was .36, with 95% confidence intervals not including zero (95% CI [.33, .38]) (see Table 1). This indicates that efficacy beliefs have a medium, positive, and significant correlation with collective action. Significant heterogeneity in effect sizes was present ($Q = 21165.37, p < .001$). The value of $I^2$ was 98.43%, indicative of high heterogeneity. Examination of the funnel plot suggested that effect sizes were not symmetrically distributed, such that there was a concentration of studies with smaller effect sizes. This was confirmed by Egger’s regression test ($p < .001$; Egger et al., 1997). Using a random-effects model, Duval and Tweedie’s (2000) trim and fill method imputed 46 missing studies, resulting in a higher estimated effect size ($r = .40$, 95% CI [.35, .44]). However, this does not affect interpretation, as the correlation between efficacy beliefs and collective action remains positive, medium in magnitude, and significantly different from zero.

**Type of Efficacy Beliefs.** Subgroup analyses (see Table 5) indicated that the type of efficacy beliefs moderated the relationship between efficacy and collective action ($Q = 22.55, p < .001$). Studies measuring beliefs about group efficacy ($r = .39$, 95% CI [.36, .42] and individual efficacy ($r = .34$, 95% CI = [.28, .39]) had medium, positive correlations with
collective action, while small, positive correlations were found for studies measuring action-focused efficacy \( (r_c = .27, 95\% \text{ CI } [.22, .32]) \) and mixed forms of efficacy \( (r_c = .26, 95\% \text{ CI } [.19, .33]) \). All effect sizes were significantly different from zero. Examination of confidence intervals indicated that group efficacy beliefs had a significantly higher correlation with collective action than action-focused efficacy and mixed forms of efficacy beliefs.

**Moral Motives**

The meta-analysis of the correlation between moral motives and collective action was conducted on 40 tests, with a total sample size of 14,182. Using a random-effects model, the mean effect size was .41, with 95% confidence intervals not including zero \( (95\% \text{ CI } = [.36, .46]) \) (see Table 1). This indicates that there is a medium, positive, and significant correlation between moral motives and collective action. Significant heterogeneity was detected \( (Q = 519.09, p < .001) \). The \( I^2 \) value of 92.50% indicated high heterogeneity. Examination of the funnel plot suggested that the distribution of effect sizes was symmetrical. This was confirmed by Egger’s regression test \( (p = .069; \text{ Egger et al., 1997}) \).

**Type of Moral Motive.** Subgroup analysis indicated that type of moral motive did not moderate the relationship between moral motives and collective action \( (Q = 2.01, p = .16) \). Studies that measured moral motive as moral conviction \( (r_c = .39, 95\% \text{ CI } [.33, .45]) \) or as moral obligation \( (r_c = .46, 95\% \text{ CI } [.38, .54]) \) both had medium, positive effect sizes that were significantly different from zero.

**Intention**

The meta-analysis of the correlation between intention and subsequent collective action behavior was run on 35 tests, with a total sample size of 16,739. Using a random-effects model, the mean effect size was .66 with confidence intervals not including zero \( (95\% \text{ CI } = [.57, .73]; \text{ see Table 1}) \). This finding indicates that intention has a large, positive, and significant correlation with collective action. Heterogeneity in effect sizes was significant \( (Q = 2940.15, p < .001) \). The \( I^2 \) value was 98.84%, indicating high heterogeneity. Examination of the funnel plot suggested that effect sizes were not symmetrically distributed, such that there was a concentration of studies with larger effect sizes and smaller standard
errors. Egger’s regression test confirmed evidence of asymmetry \( p < .001 \); Egger et al., 1997) and further examination of the forest plot suggested that this was largely due to a single paper (Granberg & Holmberg, 1990) contributing 10 very large effect sizes (ranging from .85 to .91, with \( N \)'s ranging from 719 to 1,384). Following standard recommendations for handling such cases (see Higgins & Green, 2011), we conducted a sensitivity analysis (Viechtbauer & Cheung, 2010) by recomputing the summary effect size with these tests removed in order to determine if the findings remained robust.

Using a random-effects model, we found a smaller (medium), positive effect size of .49, with 95% confidence intervals intervals not including zero (95% CI [.41, .56]). Heterogeneity in effect sizes remained significant \( Q = 317.99, p < .001 \) and high \( (I^2 = 92.45\%) \). Reinspection of the funnel plot suggested that the distribution of effect sizes was symmetrical. This was confirmed by Egger’s regression test \( (p = .442; \text{Egger et al., 1997}) \).

Given that exclusion of the Granberg and Holmberg (1990) effects sizes reduced the original mean effect size from large to medium, moderator analyses were conducted and reported both for the original data set and the data set excluding the above effect sizes. Sensitivity-adjusted results are reported in text, and results from the original non-adjusted data set are also reported in the accompanying tables, for transparency.

**Type of Intention.** Sensitivity-adjusted subgroup analysis (see Table 7) indicated that the type of intention did not moderate the relationship between intention and subsequent collective action behavior \( (Q = 3.62, p = .164) \). Studies that employed measures of intention narrowly defined had a large, positive correlation \( (r = .59, 95\% \text{ CI } [0.47, 0.69]) \), while studies employing measures of expectation \( (r = .46, 95\% \text{ CI } [0.30, 0.60]) \) or willingness \( (r = .46, 95\% \text{ CI } [0.26, 0.62]) \) both had medium, positive correlations. All effect sizes were significantly different from zero.

**Correspondence Between Intention and Behavior.** Subgroup analysis indicated that the degree of correspondence between intention and behavior did not moderate the sensitivity-adjusted correlation between collective action intention and behavior (sensitivity-adjusted \( Q = 1.25, p = .264 \)). Studies with high correspondence had large,
positive correlations ($r = .52$, 95% CI $= [.42, .60]$) while studies with low correspondence showed medium, positive correlations ($r = .43$, 95% CI $= [.30, .55]$). Both subgroup effect sizes were significantly different from zero.

**Past Behavior**

The meta-analysis of the correlation between past collective action behavior and subsequent collective action behavior was conducted on 37 tests, with a total sample size of 10,169. Using a random-effects model, the mean effect size was .43, with confidence intervals not including zero (95% CI $= [.37, .49]$; see Table 1). This indicates that past behavior has a medium, positive, and significant correlation with collective action. We found evidence for significant heterogeneity in effect sizes ($Q = 427.32$, $p < .001$). The $I^2$ value was 91.58%, indicating high heterogeneity. Examination of the funnel plot suggested that effect sizes were distributed symmetrically. This was confirmed by Egger’s regression test ($p = .383$; Egger et al., 1997).

**Correspondence Between Past Behavior and Subsequent Behavior.** Subgroup analyses (see Table 9) indicated that the degree of correspondence between past and subsequent behavior significantly moderated the relationship between past and subsequent collective action behavior ($Q = 12.54$, $p < .001$). Examination of confidence intervals indicated that studies with high correspondence had significantly larger positive correlations ($r = .58$, 95% CI $= [.50, .65]$) than studies with low correspondence ($r = .38$, 95% CI $= [.30, .45]$). Both subgroup effect sizes were significantly different from zero.

**Summary: Predictors of Collective Action**

We found all seven predictors (perceived grievance, emotion, efficacy beliefs, group identification, moral motives, intention, and past behavior) to be significantly and positively correlated with collective action, even after correcting for publication bias. In terms of magnitude, collective action had medium correlations with intention, emotion, efficacy beliefs, group identification, moral motives, and past behavior, and a small correlation with perceived grievance. Significant, high heterogeneity was present throughout, suggesting that investigation of moderators are indeed warranted. Subgroup analyses also indicated
significant moderator effects by different subtypes of predictors, which are elucidated further in the discussion. In the next section, moderator analyses focusing on characteristics of the collective action are presented, followed by moderator analyses on methodological characteristics.

**Moderator Analyses: Characteristics of Collective Action**

For the following moderator analyses, correlations between collective action and its predictors were examined in relation to twelve different characteristics of the collective action. For parsimony, correlations and confidence intervals for each level of each moderator are reported solely in the signposted tables, and not reiterated in text.

**Specific Form of Collective Action**

Subgroup analyses (see Table 10) indicated that the specific form of collective action moderated the relationship between perceived grievance and collective action ($Q = 43.39, p < .001$), between emotion and collective action ($Q = 13.71, p = .018$), and between group identification and collective action ($Q = 10.12, p = .018$).

For the relationship between perceived grievance and collective action, studies that examined joining a protest and signing a petition had small positive significant correlations; in contrast, there was no significant correlation between perceived grievance and collective action when the action examined was voting. Other possible forms of collective action coded for were not included due to insufficient number of studies (i.e., fewer than five observations).

For the relationship between emotion and collective action, studies that examined donating money, joining a protest, signing a petition, and using violence all had small positive significant correlations. In contrast, there was no significant correlation between emotion and collective action when the actions examined were discussing a social issue or voting. Other possible forms of collective action coded for were not included due to insufficient number of studies (i.e., fewer than five observations).

For the relationship between group identification and collective action, studies that examined joining a protest had a medium, positive, significant correlation, which was larger
than studies that examined donating money, signing a petition, and voting, all of which had small, positive, significant correlations. Other possible forms of collective action coded for were not included due to insufficient number of studies (i.e., fewer than five observations).

Finally, the form of action examined did not moderate the association between efficacy beliefs and collective action ($Q = 14.13, p = .078$) or between intention and collective action (sensitivity-adjusted $Q = 0.07, p = .790$).

Subgroup analysis could not be conducted for the moral motives and past behavior predictors due to an insufficient number of studies.

**Type of Measurement of Collective Action**

Subgroup analyses (see Table 11) indicated that the type of measurement of collective action (intention versus behavior) moderated the relationship between perceived grievance and collective action ($Q = 5.97, p = .015$), between emotion and collective action ($Q = 27.22, p < .001$), between group identification and collective action ($Q = 7.28, p = .007$), and between efficacy beliefs and collective action ($Q = 49.94, p < .001$). In particular, studies that measured intention had significantly larger positive correlations than studies that measured behavior across these four predictors. The type of measurement of collective action did not moderate the relationship between moral motives and collective action ($Q = 3.32, p = .069$).

**Type of Collective Actor**

Subgroup analyses (see Table 12) indicated that the type of collective actor moderated the relationship between perceived grievance and collective action ($Q = 22.69, p < .001$), between emotion and collective action ($Q = 8.22, p = .042$), between group identification and collective action ($Q = 42.60, p < .001$), and between efficacy beliefs and collective action ($Q = 11.55, p = .009$). For the relationship between perceived grievance and collective action, studies that focused on action by opinion-based groups had significantly larger, positive correlations than those that focused on action by the general public. No significant differences were observed for disadvantaged versus advantaged groups.
For the relationships between both emotion and collective action, and between efficacy beliefs and collective action, studies that focused on action by disadvantaged groups, advantaged groups, and opinion-based groups had significantly larger, positive correlations than those that focused on action by the general public. No significant differences were observed for disadvantaged versus advantaged versus opinion-based groups.

For the relationship between group identification and collective action, studies that focused on action by opinion-based groups had significantly larger, positive correlations than those that focused on action by disadvantaged groups, advantaged groups, or the general public. No significant differences were observed for disadvantaged versus advantaged versus the general public.

Finally, the type of collective actor did not moderate the relationship between moral motives and collective action ($Q = 4.22, p = .239$), between intention and collective action (sensitivity-adjusted; $Q = 5.36, p = .069$), or between past behavior and collective action ($Q = 0.02, p = .877$).

**Beneficiary of Collective Action**

Subgroup analyses (see Table13) indicated that the beneficiary of collective action moderated the relationship between perceived grievance and collective action ($Q = 15.60, p < .001$) and the relationship between efficacy beliefs and collective action ($Q = 13.58, p < .01$). There were no significant differences in the relationship between these predictors and collective action when considering actions benefiting the ingroup versus actions benefiting the outgroup, as indicated by overlapping confidence intervals. Patterns of moderation were otherwise inconsistent across the two predictors. Specifically, a significantly larger positive correlation between perceived grievance and collective action was observed when the beneficiary was the ingroup, compared to the public at large. However, this was not the case for efficacy beliefs. Instead, a significantly larger positive correlation between efficacy beliefs and collective action was observed when the beneficiary was the outgroup, compared to the public at large. Beneficiary of collective action did not moderate the relationship between
collective action and other predictors, i.e., emotion, group identification, moral motives, intention, or past behavior (Q's ranging from 0.07 to 5.83, p's from .054 to .849).

**Normativity and Violence**

Subgroup analyses indicated that neither the normative versus non-normative character of the action (Q's ranging from 0.26 to 2.37, p's from .083 to .879; see Table 14) or the violent versus nonviolent quality of the action (Q's ranging from 0.06 to 5.44, p's from .066 to .808; see Table 15) moderated any of the relationships between collective action and its predictors. Subgroup analysis was not conducted for intention (for normativity as a moderator) and for intention and past behavior (for violence as a moderator) due to an insufficient number of studies.

**Time Cost**

Subgroup analyses indicated that time cost moderated the relationship between perceived grievance and collective action (Q = 37.81, p < .001) and between group identification and collective action (Q = 7.53, p = .023), though patterns differed (see Table 16). There was no significant correlation between perceived grievance and collective action when collective action incurred high time cost. No significant difference in the relationship between perceived grievance and collective action was observed for studies involving low versus moderate time cost. For the relationship between group identification and collective action, a significantly smaller correlation was observed when time cost was low, compared to when time cost was moderate.

Time cost did not moderate the relationships between collective action and emotion, efficacy beliefs, or moral motives (Q's ranging from 0.14 to 2.80, p's from .094 to .931). Subgroup analysis was not conducted for the intention and past behavior predictors due to an insufficient number of studies.

**Material Cost**

Subgroup analyses (see Table 17) indicated that material cost moderated the relationship between perceived grievance and collective action (Q = 4.30, p = .038), between emotion and collective action (Q = 11.81, p < .001), and between past behavior and
collective action \( (Q = 4.16, p = .042) \). Perceived grievance, emotion, and past behavior had higher correlations with collective action when material cost was of moderate level, compared to when material cost was low. Material cost did not moderate the relationships between collective action and group identification, efficacy beliefs, moral motives, and intention \( (Q's \text{ ranging from } 0.92 \text{ to } 2.86, p's \text{ from } .0.91 \text{ to } .337) \).

**Habit Potential**

Subgroup analyses (see Table 18) indicated that habit potential moderated the relationship between perceived grievance and collective action \( (Q = 7.75, p = .005) \) and between emotion and collective action \( (Q = 19.43, p < .001) \). Patterns across these two predictors were similar; both perceived grievance and emotion had significantly stronger correlations with collective action when action was highly conducive to habit formation, compared to when habit potential was low.

Habit potential did not moderate the relationship between efficacy beliefs and collective action \( (Q = 0.90, p = .639) \) or between group identification and collective action \( (Q = 3.49, p = .174) \). Subgroup analysis was not conducted on moral motive, intention, or past behavior predictors due to an insufficient number of studies.

**Anonymity**

Subgroup analyses (see Table 19) indicated that anonymity moderated the relationship between perceived grievance and collective action \( (Q = 24.60, p < .001) \), between emotion and collective action \( (Q = 24.91, p < .001) \), and between efficacy beliefs and collective action \( (Q = 13.47, p = .001) \). For all three cases, there were significantly smaller correlations with collective action when individuals participated anonymously, and thus were not publicly identifiable, compared to when the anonymity of participation varied.

Patterns otherwise varied. For the relationships between perceived grievance and collective action, and emotion and collective action, studies that focused on anonymous action also had significantly smaller correlations than those that focused on action that was not anonymous. However, for the relationship between efficacy beliefs and collective action, no significant differences were observed for anonymous versus non-anonymous action.
Similarly, for the relationships between emotion and collective action, and efficacy beliefs and collective action, studies that focused on anonymous action and on non-anonymous action also had significantly smaller correlations than those that focused on action of mixed/varied anonymity. However, for the relationships between perceived grievance and collective action, no significant differences were observed for non-anonymous versus mixed/varied action. Anonymity did not moderate the relationship between group identification and collective action ($Q = 3.72, p = .156$), between intention and collective action ($Q = 1.51, p = .470$), or between past behavior and collective action ($Q = 0.16, p = .688$). Subgroup analysis was not conducted on the moral motive predictor due to an insufficient number of studies.

**Number of Actors**

Subgroup analyses (see Table 20) indicated that the number of actors (one person versus multiple people) moderated the relationship between perceived grievance and collective action ($Q = 23.72, p < .001$), between emotion and collective action ($Q = 29.54, p < .001$), between efficacy beliefs and collective action ($Q = 15.47, p < .001$), and between group identification and collective action ($Q = 10.24, p = .006$), with largely consistent patterns. Perceived grievance, emotion, and efficacy beliefs had significantly larger correlations with collective action in studies that varied in number of actors, compared to studies of action taken by one person or by multiple people. Group identification had a significantly larger correlation with collective action in studies that varied in number of actors, compared to studies of collective action taken by one person only. The number of actors did not moderate the associations between intention and collective action (sensitivity-adjusted $Q = 0.26, p = .613$) or between past behavior and collective action ($Q = 0.11, p = .736$). Subgroup analysis comparing action by one person versus multiple people was not conducted on the moral motive predictor due to an insufficient number of studies.

**Online Versus Offline Collective Action**

Subgroup analyses (see Table 21) indicated that the online versus offline distinction moderated the relationship between perceived grievance and collective action ($Q = 31.80, p$
< .001), between emotion and collective action ($Q = 42.63, p < .001$), and between efficacy beliefs and collective action ($Q = 13.90, p < .001$). For all three predictors, correlations with collective action were significantly larger when studies measured action that could be taken either online or offline, compared to when studies measured offline-only action. There was also a significantly larger correlation between emotion and collective action when action could be taken either online or offline, compared to online-only action. No other comparisons were significant.

The distinction between online versus offline action did not moderate the relationship between group identification and collective action ($Q = 2.56, p = .278$), between intention and collective action (sensitivity-adjusted $Q = 3.56, p = .168$), or between past behavior and collective action ($Q = 0.86, p = .354$). Subgroup analysis comparing online versus offline action was not conducted on the moral motive predictor due to an insufficient number of studies.

**Moderator Analysis: Methodological Characteristics**

For the last set of moderator analyses, correlational effect sizes between collective action and its predictors were examined in relation to seven characteristics related to study design and methodology. Again, for parsimony, correlations and confidence intervals for each level of every moderator are reported solely in the signposted tables, and not reiterated in text.

**Number of Actions Measured**

The number of actions measured moderated the relationship between perceived grievance and collective action ($Q = 32.20, p < .001$), between emotion and collective action ($Q = 14.45, p < .001$), between efficacy beliefs and collective action ($Q = 11.96, p < .001$), and between past behavior and collective action ($Q = 6.36, p = .012$) (see Table 22). In all cases, significantly larger correlations were observed in studies assessing collective action using multiple-action measures compared to studies employing single-action measures.
Number of actions measured did not moderate the relationship between collective action and the predictors of group identification ($Q = 1.59, p = .208$), morality ($Q = 3.28, p = .070$), and intention (sensitivity-adjusted $Q = 0.56, p = .453$).

**Self-Reported Versus Observed Action**

Subgroup analyses indicated that whether studies used self-report versus observational measures of collective action did not moderate the relationship between collective action and any of the predictors of perceived grievance, emotion, group identification, efficacy beliefs, and intention ($Q$'s ranging from 0.00 to 3.06, $p$'s ranging from .080 to .997; see Table 23). No subgroup analyses were conducted for the predictors of moral motives and past behavior due to an insufficient number of studies.

**Study Design: Correlational Versus Experimental Studies**

Subgroup analyses indicated that study design (correlational versus experimental) did not moderate the relationship between collective action and the predictors of perceived grievance, emotion, group identification, efficacy beliefs, and moral motives ($Q$'s ranging from 0.00 to 3.76, $p$'s ranging from .06 to .99; see Table 24). No subgroup analyses were conducted for the predictors of intention and past behavior due to an insufficient number of studies.

**Time Interval: Cross-Sectional Versus Longitudinal Studies**

Subgroup analyses (see Table 25) indicated that time interval moderated the relationship between perceived grievance and collective action ($Q = 12.20, p < .001$), and between group identification and collective action ($Q = 9.49, p = .002$). In both cases, significantly larger correlations with collective action were observed for studies that employed a cross-sectional design, compared to a longitudinal design.

The distinction between cross-sectional versus longitudinal studies did not moderate the relationship between collective action and the predictors of emotion, efficacy beliefs, intention, and past behavior ($Q$'s ranging from 1.06 to 1.61, $p$'s ranging from .205 to .302). No subgroup analysis was conducted for the moral motives predictor due to insufficient studies.
Sample Characteristics

Age. Meta-regression (see Table 26) showed that the mean age of the sample was a significant moderator of the relationship between perceived grievance and collective action ($B = -0.01$, 95% CI = [-0.01, 0.00], $p = .030$), efficacy beliefs and collective action ($B = -0.01$, 95% CI = [-0.01, 0.00], $p = .003$), and between moral motives and collective action ($B = -0.01$, 95% CI = [-0.01, -0.00], $p = .036$) such that studies with younger participants tended to show larger correlations. Age did not moderate the relationships between collective action and emotion, group identification, intention, or past behavior ($p$'s from .514 to .990).

Gender. Meta-regression (see Table 27) indicated that gender (% female in the sample) did not moderate any of the relationships between the predictors and collective action ($p$’s ranging from .118 to .667).

Student Versus Non-Student Samples. Subgroup analyses (see Table 28) indicated that whether samples were recruited from a student population or not was a significant moderator of the relationship between perceived grievance and collective action ($Q = 6.20, p = .045$), between group identification and collective action ($Q = 9.49, p = .009$), and between intention and collective action (sensitivity-adjusted $Q = 6.22, p = .045$). For the relationships between perceived grievance and collective action, and between group identification and collective action, studies with a mix of student and non-student participants had significantly larger correlations than studies of only students or only non-students. For the association between intention and collective action, studies with non-student participants had smaller correlations compared to student-only or mixed samples. Subgroup analysis showed no other significant moderation for the other predictors, i.e., emotion, efficacy beliefs, moral motives, and past behavior ($Q$’s ranging from 0.67 to 4.28, $p$’s ranging from .117 to .555).

Discussion

The current meta-analyses aimed to provide the most comprehensive quantitative review to date of the predictors of collective action. We advance current knowledge on collective action in four fundamental ways. First, we demonstrate that a wide array of
constructs, including variables from the collective action literature (perceived grievance, emotion, group identification, group efficacy beliefs, and moral motives) and those developed in the literature on self-regulation (intention, past behavior, and individual and action efficacy beliefs) are associated with collective action. This finding indicates that theoretical approaches to understanding behavior in both domains would benefit from considering a wider range of predictors. Notably, we provide the first meta-analytic estimates of the relationship between intention and behavior, and between past behavior and subsequent behavior in collective action.

Second, we provide evidence that these general predictors are associated with collective action not just among disadvantaged group actors, but also among advantaged group actors acting on behalf of disadvantaged groups, opinion-based group actors, and members of the public at large. This result affirms recent reconceptualizations that seek to expand the scope of collective action to go beyond behavioral responses to ingroup disadvantage, thereby connecting traditional models with the theorizing in allyship, solidarity, and political participation.

Third, we extend the scope of traditional operationalizations of collective action to go beyond protesting to include a broader array of forms of action including petition-signing, boycotting products, donating money to political causes, and more institutionalized forms of political participation such as voting. There were largely no consistent differences in the associations between collective action and its predictors as a function of the different forms of collective action, with the exception of voting. Our review provides evidence that voting operates in a slightly different way compared to other forms of collective action, such that voting is not significantly predicted by perceived grievance or emotion.

Fourth, we assessed the robustness of the correlations between collective action and its predictors using moderator analyses, including a comprehensive range of moderators such as key characteristics of focal predictors, of the collective action itself, and of the methodology employed in studies. In doing so, we demonstrate, for the first time, the impact
of a number of theory-driven factors derived from both the literatures on collective action and on self-regulation on the relationship between collective action and its predictors.

Predictors of Collective Action: Why Do People Take Action?

The present meta-analyses indicated that all seven predictors — perceived grievance, emotion, efficacy beliefs, group identification, moral motives, intentions to take collective action, and past collective action behavior — had significant, positive correlations with collective action, albeit with varying degrees of magnitude. All seven relationships were characterized by significant heterogeneity, indicating the presence of moderating variables, which were examined using subgroup analysis and meta-regression. Below, we discuss these individual predictors and their theoretical implications for the core question of why people take collective action.

Because they intend to. Intention had the largest positive correlation with subsequent collective action behavior. This medium effect size is consistent with other meta-analyses of the correlation between intention and behavior in other domains such as health (Armitage & Conner, 2001; Hagger et al., 2002; McEachan et al., 2016; Sheeran, 2002; Sheppard et al., 1988). The present paper provides a novel extension to the literature on intention-behavior relations by providing the first meta-analytic estimate of the size of the relationship between intention and behavior in the domain of collective action. Our findings, based on a synthesis of prospective studies, provide strong evidence for what most collective action researchers have assumed: people’s intentions to take collective action do predict their subsequent actual behavior.

Contrary to other meta-analyses (Downs & Hausenblas, 2005; Kraus, 1995) and inconsistent with theories of reasoned action and planned behavior (Fishbein & Ajzen, 2010), the degree of correspondence between intention and behavior did not significantly moderate the intention-behavior relationship. We expected studies with high correspondence to result in higher intention-behavior correlations, compared to studies that measured related
but distinct intentions and behaviors. Our finding may be due to the dichotomous coding of correspondence as high versus low, rather than a more fine-grained assessment of correspondence along the four elements of action, target, context, and time (see Fishbein and Ajzen, 2010). This more precise coding strategy was not possible due to insufficient detail reported in primary studies. Future research, including primary studies that systematically vary the degree of correspondence between intentions to take collective action and actual behavior, is needed to resolve this question.

Likewise, contrary to what was expected from meta-analyses in other behavioral domains such as health, economics, and education (e.g., Armitage & Conner, 2001; Sheppard et al., 1988; Todd et al., 2014), the specific type of intention (whether behavioral intentions, behavioral expectations, or behavioral willingness) was not differentially associated with collective action behavior. As some theorists (e.g., Fishbein & Ajzen, 2011) have suggested, the three constructs may simply act as variants of the same underlying action tendency. With collective action, it is possible that contextual factors such as the availability of opportunities to act (Meyer & Minkoff, 2004), the need to coalesce and coordinate with other group members (Mauss, 1975), the sudden, episodic nature of particular grievances (Walsh et al., 1997), or the contested social value of political behaviors like protesting (Di Cicco, 2010) may impose more powerful constraints on individual agency and action than in domains like health. This would suggest that any variations in the tendency to take action, such as the distinction between reactive action tendency (as in the case of behavioral willingness, “I would be willing to take action”) and reasoned action tendency (as in the case of behavioral intentions, “I intend to take action”), would not operate with enough strength to be detectable. Furthermore, our finding implies that collective action should not be conceptualized solely as a reactive behavior taken in response to a grievance or group disadvantage following a presented opportunity to do so. Future research that features a direct test systematically comparing behavioral intentions, behavioral expectations, and behavioral willingness to take collective action would shed more light into this issue.
Because they feel discrete emotions. Emotion had a medium-sized correlation with collective action. The size of this correlation is similar to the correlation between collective action and affective injustice (i.e., negative emotions related to the perception of injustice or relative deprivation, such as anger) reported in the meta-analysis by Van Zomeran et al. (2008). The outcomes of our analysis, however, go beyond previous findings by demonstrating that a broader range of positive (e.g., hope) and negative (e.g., shame) discrete emotions, as well as general (positive or negative) affect, predict collective action. This demonstrates that emotion operates as a core factor in intergroup relations beyond just specific negative emotions stemming from perceived ingroup disadvantage (Iyer & Leach, 2008). Unsurprisingly, anger, often considered the prototypical protest emotion (Jasper, 2014; van Stekelenburg & Klandermans, 2013; van Troost et al., 2013), showed a medium-sized correlation with collective action. However, we also found that a number of other discrete emotions, such as shame, sympathy, discontent, and guilt, have comparable medium-sized correlations with collective action. Other discrete emotions such as hope and sadness also had significant, albeit smaller, correlations with collective action. We found no evidence of an association between collective action and emotions like fear, frustration, and anxiety. Lastly, we found that general negative affect and general positive affect were both positively associated with collective action, though with small effects.

These findings provide a number of key theoretical insights. First, as a number of contemporary conceptual models have argued (Flam, 2005; Iyer & Leach, 2008; Smith & Mackie, 2015; Thomas et al., 2009a, 2009b), emotions strongly influence group-based interactions and behaviors such as collective action. Older approaches such as resource mobilization theory (e.g., Klandermans, 1984) and its theoretical offspring, such as Stürmer and Simon’s (2004) dual pathway model of collective action, excluded emotion as a predictor of collective action, preferring to focus on more “rational” factors such as perceived costs and benefits of taking action. Our findings attest that this theoretical exclusion is untenable.

Second, our moderator analysis shows that indeed, anger is a robust predictor of collective action, as previous theorizing has emphasized (Thomas et al., 2009b; van
Stekelenburg & Klandermans, 2017; van Troost et al., 2013). However, other discrete emotions such as shame and sympathy are equally important. Integrative theoretical models that have included a specific emotion pathway, such as van Zomeren et al.’s dual pathway model of collective action (van Zomeren et al., 2004, 2012), the encapsulation model of social identity in collective action (EMSICA; Thomas et al., 2009, 2011), and van Stekelenburg and Klandermans’ (2007, 2013, 2017) integrative model of protest motivation, all specify anger as the dominant emotion that mobilizes people to take collective action. Our findings, however, indicate that theoretical models of collective action need to be broadened to accommodate emotions other than anger. This is particularly pertinent given previous studies showing that anger can be expressed in other ways that do not advance group interests (the so-called fragility of anger; Stürmer & Simon, 2009). Anger, as theorists such as Flam (2005), have argued, can be unruly, difficult to sustain, and socially discouraged and ultimately self-defeating. Rather than viewing anger as the affective prerequisite for collective action, our findings suggest that emotions such as shame, sympathy, and guilt can similarly mobilize people to take action.

Third, our meta-analysis indicates that negatively valenced, threat-based emotions such as fear and anxiety are not particularly effective in mobilizing people to act. Unlike anger, which has been theorized to drive individuals to cope with group-based disadvantage (e.g., van Zomeren et al., 2004, 2012), fear is often accompanied by a judgment of personal vulnerability and low coping potential with a threatening event and is considered a distancing emotion (Roseman, 2018). That is, fear is more likely to make individuals move away from the source of perceived threat, rather than to face it. Indeed, theoretical accounts of social movements identify the management of fear as an essential component of successful collective action (Flam, 2005; Goodwin & Pfaff, 2001).

Finally, a discrete emotions perspective (Harmon-Jones et al., 2017) to collective action appears to be more fruitful than a dimensional one. This is suggested by the larger observed effect sizes for particular discrete emotions, than general positive or negative affect. Our finding can be understood from a methodological point of view; that is, studies
that measured general negative affect (e.g., angry and frustrated; Grant et al., 2017; sad, frustrated, scared, and fearful; Barkas & Chryssochoou, 2017) and general positive affect (e.g., proud, happy, very excited, and having a blast: Gousse-Lessard et al., 2013; happy, proud, significant, excited, full of energy, active, and strong: Jasko et al., 2019) aggregated discrete emotions that our previous analysis shows have varying levels of association with collective action.

**Because they identify with a group, especially when the group is politicized.** Consistent with previous meta-analytic findings (van Zomeren, Postmes, & Spears, 2008), identification with a group had a medium-sized correlation with collective action. Group identification lies at the heart of various contemporary, integrative models of collective action by disadvantaged groups, such as the social identity model of collective action (SIMCA; van Zomeren, Kutlaca, & Turner-Zwinkels, 2018; van Zomeren, Postmes & Spears, 2008), the encapsulation model of social identity in collective action (EMSICA; Thomas et al., 2009, 2011), the social identity, relative deprivation, collective efficacy model (SIRDE; Grant et al., 2015, 2017), and van Stekelenburg and Klandermans’ (2007, 2013, 2017) integrative model of protest motivation. As postulated by social identity theory (Tajfel & Turner, 1979), identifying with a group enables and motivates individuals to think, feel, and act in group terms, including thinking, feeling, and acting for group interests.

In particular, and as expected, identification with a politicized group (e.g., identifying as a feminist) had a stronger correlation with collective action than did identification with a non-politicized group (e.g., identifying as a woman). This finding is consistent with various theoretical and empirical accounts (e.g., Simon & Klandermans, 2001; Stürmer & Simon, 2004; Thomas et al., 2009, 2011; van Zomeren, Kutlaca, & Turner-Zwinkels, 2018; van Zomeren, Postmes & Spears, 2008). For example, according to the politicized collective identity model (Simon & Klandermans, 2001; Stürmer & Simon, 2004) when individuals identify with a group that is politicized, this social identity more readily activates political action tendencies, entails a cognitive restructuring of the social environment in terms of the ingroup, opponents, and potential allies, and promotes stronger personal obligations to the
relevant social movement. Such identities are theorized to more strongly mobilize collective action for social change, especially when they bridge group memberships across systems of inequality via political solidarity (Subašić et al., 2008). The current meta-analysis supports this view.

Because they believe they can. In line with previous meta-analytic findings (van Zomeren, Postmes & Spears, 2008) and with broader theoretical views related to human agency and self-regulation (Bandura, 1997, 2000, 2001), efficacy beliefs had a medium-sized correlation with collective action. More specifically, beliefs around group efficacy (“we can do this action to advance group interests”) as well as individual efficacy (“I can do this action to advance group interests”) demonstrated stronger correlations with collective action than action-focused efficacy (“this action will advance group interests”) or mixed forms of efficacy. Our findings indicate that prevailing theories in collective action need to broaden their scope and go beyond group efficacy to consider beliefs about individual capacity to contribute to collective action. Perhaps because of collective action’s group-based nature, most current theories on collective action such as the social identity model of collective action (SIMCA; van Zomeren, Kutlaca, & Turner-Zwinkels, 2018; van Zomeren, Postmes & Spears, 2008), the encapsulation model of social identity in collective action (EMSICA; Thomas et al., 2009, 2011), and the social identity, relative deprivation, collective efficacy model (SIRDE; Grant et al., 2015, 2017) have focused only on the collective form of efficacy (i.e., group efficacy beliefs) as the instrumental pathway to action without much consideration for individual-level forms of efficacy beliefs (for an interesting exception, see van Zomeren et al., 2013). We are not suggesting that the field abandon group efficacy in favor of individual efficacy; our meta-analytic findings in fact indicate that both forms of efficacy have comparable associations with collective action. Rather, in line with recent theoretical and empirical arguments in pro-environmental behavior and climate change action (e.g., Jugert et al., 2016; Koletsou & Mancy, 2011), we posit that theories of collective action need to account for both individual and group levels of perceived efficacy. Such an expansion would move theorizing more in line with the core definition of collective
action in psychology: an *individual-level* behavior taken in the service of *group* interests (Wright et al., 1990; van Zomeren & Iyer, 2009; Becker, 2012b).

Beyond beliefs in the ability of the individual and the group to take action, our findings also indicate that efficacy beliefs related to the action (i.e., outcome expectancies, also known as perceived effectiveness; Hornsey et al., 2006) are associated with taking action, albeit in a weaker fashion. The relatively superior impact of group and individual efficacy compared to action-focused efficacy in predicting collective action may be understood from the perspective of self-referencing theory (Symons & Johnson, 1997). Cognitions that are related to the self — including social identities and personal group memberships — have higher accessibility, are better elaborated, and are more motivational, compared to non-self-related beliefs (see also Markus & Wurf, 1987). Group efficacy, as argued in social cognitive theory (Bandura, 1997, 2000, 2001) reflects an exercise of human agency, serves functions akin to those of individual efficacy, and operates through the same processes. On the other hand, outcome expectancies such as action-focused efficacy beliefs have been shown to predict behavior because they lead to personal efficacy for the action, suggesting that efficacy beliefs related to the self and by extension, one’s group, are more proximal, and therefore should be more highly correlated with behavior than action-focused beliefs (Williams, 2010). Others such as Koletsou and Mancy (2011) have further argued that action-focused beliefs can be further decomposed into *individual* expectancies (e.g., if *I* take action, the collective goal will be achieved) and *group* expectancies (e.g., if we take action, the collective goal will be achieved), and that the additive combination of all four beliefs will best predict collective action. They concede, however, that there is a need to sensitize researchers into measuring the four constructs separately. Future primary studies with such precise measures are needed to test this idea.

**Because they perceive the issue as a matter of right and wrong.** Moral motives, which are a relatively recent theoretical addition to the literature on predictors of collective action (Sabucedo et al., 2018, 2019; van Zomeren et al., 2018), had a medium-sized correlation with collective action. This finding is the first meta-analytic estimate of this
Relationship. Multiple pathway models such as the extended social identity model of collective action (extended SIMCA; Zomeren, Kutlaca, & Turner-Zwinkels, 2018), the axiological-identitary collective action model (AICAM; Sabucedo et al., 2018, 2019), and the integrative model of protest motivation (van Stekelenburg & Klandermans, 2007, 2013, 2017) all postulate an independent link between collective action and some type of moral motive, whether in the form of moral conviction (van Zomeren, Kutlaca, & Turner-Zwinkels, 2018), moral obligation (Sabucedo et al., 2018), or some broad ideology violation (van Stekelenburg & Klandermans, 2010).

Interestingly, however, type of moral motive was not a significant moderator of the relationship between moral motives and collective action, despite the argument that moral obligations should better predict collective action than moral convictions because the former is action-focused and more specific while the latter is broad and issue-focused (Sabucedo et al., 2018, 2019). This finding suggests that the action-specificity of moral motives does not necessarily increase its ability to predict collective action. Likewise, primary studies that measure both moral obligations and moral convictions simultaneously (e.g., Sabucedo et al., 2018) have indicated that the two constructs are highly intercorrelated. This may be because of individuals forming perceptions of moral obligation around an issue-relevant action, based on their prior moral convictions around the issue in question. Alternatively, strongly held moral beliefs (i.e., moral convictions) may include a duty-to-act component that cannot be easily isolated. Our findings imply that the recent theories that place primacy on a particular type of moral motive, such as moral obligations in the axiological-identitary collective action model (AICAM; Sabucedo et al., 2018, 2019), need to be taken tentatively and may require reevaluation. Because of the relative novelty of research on moral motives as an independent pathway to collective action, further primary studies are warranted, to directly compare the different forms of moral motives with respect to collective action.

Because they previously took action, especially the same action. Past behavior, a variable drawn from the self-regulation tradition, had a medium-sized correlation with subsequent collective action. This is consistent with previous meta-analytic findings from the
literature on health behavior (Gardner et al., 2011; Ouellette & Wood, 1998) and is evidenced here for the first time for collective action. As hypothesized based on the principle of compatibility (Downs & Hausenblas, 2005; Fishbein & Ajzen, 2010; Kraus, 1995), the degree of correspondence between past and subsequent behavior significantly moderated this correlation: Past behavior was a stronger predictor of collective action when studies examined the same, rather than different, behaviors.

Despite calls to focus more attention on the so-called paradox of persistent participation (Louis, 2009; van Stekelenburg & Klandermans, 2017), none of the current integrative models of collective action have embraced past behavior as a predictor of action in its own right. Our findings suggest this theoretical omission is important. A number of conceptual models related to social participation may provide a basis for the inclusion of past behavior in theories of collective action. In their collective empowerment model of social change, for example, Drury and Reicher (2009) suggest that participation in physical forms of group behavior leads to stronger group identification and a sense of collective empowerment, which are then hypothesized to pave the way for future action. Likewise, feminist research on women’s activism (e.g., Cole & Stewart, 1996; Rothe, 2000) have elaborated on the biographical continuity hypothesis, which suggests that sustained participation is a result of earlier experiences of political socialization in one’s life. Theoretical accounts of past behavior in other areas of psychology, in contrast, have emphasized the role of habit, the learned implicit associations between cues and behaviors developed through repeated rewards (Wood, 2017; Wood & Rünger, 2016). In the current meta-analyses, we explored the role of habit potential as a moderator of the relationship between collective action and its predictors; this is discussed in further detail in the next subsection.

Our findings on intention, efficacy beliefs, and past behavior demonstrate that group-based behaviors such as collective action can be understood in similar ways as the more individual behaviors that are the traditional focus of the literature on self-regulation and behavior change. Our meta-analysis suggests that integrative models in collective action,
which have successfully incorporated constructs from the more group-based traditions of psychology such as social identity theory (Tajfel & Turner, 1979), will further benefit from considering constructs from more individual-based approaches to behavior prediction and behavior change. These include contemporary models that already incorporate intentions, individual efficacy, and/or past behavior, such as the theory of planned behavior and its current articulation, the reasoned action approach (Fishbein & Ajzen, 2010).

**Because they perceive a grievance.** Finally, perceived grievance had a significant but small correlation with collective action. This finding is consistent with a previous meta-analysis by Smith et al. (2011) on the association between relative deprivation and collective action. As Dutch collective action researchers have put it: “At the heart of every protest are grievances” (van Stekelenburg et al., 2011, p. 92).

However, this heart may not be sufficient or particularly potent to mobilize individuals to take action. In line with critical theoretical accounts of the role of grievance in social movements (e.g., Gurney & Tierney, 1982; McCarthy & Zald, 1977), our meta-analysis suggests that the perception of disadvantage is actually not the strongest predictor of collective action. Indeed, current theoretical models have favored anger (as an affective form of perceived injustice) as a predictor of collective action in lieu of perceived grievance (Sabucedo et al., 2018, 2019; Thomas et al., 2009, 2011; van Stekelenburg & Klandermans, 2017; Zomeren, Kutlaca, & Turner-Zwinkels, 2018).

Interestingly, the meta-analysis on perceived grievance and collective action also found no significant difference between studies that used procedural injustice, distributive injustice, or mixed forms of injustice as specific forms of grievance to motivate collective action. Although social justice theory (e.g., Tyler, 2001; Tyler & Lind, 2002) makes a traditional distinction between the perception of being treated wrongly (procedural injustice) versus the perception of experiencing unfair outcomes (distributive injustice), this differentiation had no significant impact on the relationship between perceived grievance and collective action in the current meta-analysis. This finding is aligned with other theorizing (Cropanzano & Ambrose, 2001) as well as meta-analytic evidence (Colquitt et al., 2001) that
these injustice constructs actually overlap a great deal. Alternatively, these different perceptions of grievance may be viewed as affecting one another. Individuals, for example, often make distributive injustice judgments based on a prior appraisal of procedural injustice (van den Bos et al., 1997). Future primary studies should examine these possible causal paths linking various forms of perceived injustice with each other and with collective action.

**Collective Action: Taken Not Just By Disadvantaged Groups**

Research on collective action research has historically focused on disadvantaged groups acting to advance their status, power, and interests. Early conceptualizations of collective action cite a foundational definition provided by Wright et al. (1990): “A group member engages in collective action any time that he or she is acting as a representative of the group and the action is directed at improving the condition of the entire group” (p. 995). Central to this conceptualization of collective action is that an individual acts as an ingroup member. Others have taken this definition as a starting point but have questioned the assertion that collective action is limited to actions of the low-status group and its members (van Zomeren & Iyer, 2009; Wright, 2009). Specifically, advantaged groups can and do engage in collective action on behalf of disadvantaged groups. This reality is reflected in more recent definitions put forth by van Zomeren and Iyer (2009), Becker (2012b), and van Zomeren (2015). Becker (2012b) has incorporated this view in an updated definition of collective action: “any action that promotes the interests of one’s in-group or is conducted in political solidarity… to challenge or protect the status quo and can be conducted by low-status groups, high-status groups, or groups not distinguished by status position” (p. 19).

The current meta-analysis builds on this expanded scope of collective action, demonstrating that predictors are associated with collective action not just by disadvantaged groups, but also by advantaged groups either acting on behalf of disadvantaged groups to challenge the status quo (i.e., “allies”) or acting in their own groups interest by protecting the status quo, action by opinion-based groups, and the broad political behaviors by members of the public at large. More specifically, moderator analysis indicated that associations between
collective action and its predictors were similar for disadvantaged and advantaged groups. For the first time therefore, the current work provides strong meta-analytic support for the theoretical turn to extend the scope of collective action to include action by the advantaged (Louis et al., 2019; Subašić et al., 2008; van Zomeren & Iyer, 2009; Wright, 2009).

Interestingly, perceived grievance and group identification were more strongly associated with collective action when the collective actors were from opinion-based groups, in support of theorizing on this type of group identification (McGarty et al., 2009; Thomas et al., 2009a, 2009b). By definition, such collectives are formed on the basis of common views around a pressing social issue; in other words, a shared perceived grievance. Opinion-based groups have also been argued to tap into the power of politicized social identity to a certain extent but without the attendant challenges of aligning oneself with a formal social movement (McGarty et al., 2009). Our findings suggest that opinion-based group identification operates in a similar fashion as collective action traditionally conceived as action by disadvantaged groups. This is the first time this has been demonstrated meta-analytically.

**Collective Action: Not Just Protest**

In a similar fashion, we note that traditional theoretical conceptualizations of collective action equate it largely with protest, sometimes even using these terms interchangeably (e.g., Klandermans, 1997) and often excluding institutionalized forms of political participation from its scope. In this meta-analysis, we expanded the scope of collective action beyond protesting to include a broader array, including signing petitions, boycotting products, donating money to a political cause, and more institutional forms of political behavior such as voting, following more recent theorizing in the area of political psychology (Barrett, 2015; Barrett & Brunton-Smith, 2014; Emler, 2015; van Deth, 2014).

Findings from our meta-analysis suggest that while protest may be the prototypical collective action behavior, the predictors we examine explain a more diverse range of forms of collective action. However, the relationship between collective action and three predictors from the social psychological literature on collective action (perceived grievance, emotion,
and group identification) was moderated by the specific form of action. Notably, differences in the correlations observed for voting versus other actions were the common driver of these effects. Specifically, perceived grievance and emotion were not significantly correlated with voting, and group identification had a significantly smaller correlation with voting than most other forms of action. In contrast, voting was not differentially correlated with predictors from the literature on self-regulation and behavior change, in that intention and efficacy beliefs were associated with voting and other forms of collective action in a comparable fashion. While we noted earlier that voting can be a means to express discontent or challenge the status quo (and thus should be associated with emotion and perceived grievance), the current meta-analysis indicates that these are not inherent or exhaustive motivations for voting. Instead, the results indicate that people are more likely to vote if they intend to, believe they have the capability to do so, and that their (or their group’s) actions can have an impact. These findings can be accounted for by the theory of planned behavior (Fishbein & Ajzen, 2010), which has long posited that voting behavior is best predicted by two proximal variables, namely intentions to vote (Ajzen et al., 1982; Bowman & Fishbein, 1978; Netemeyer & Burton 1990) and perceived behavioral control over voting (a variable akin to efficacy beliefs; Netemeyer & Burton 1990; see also Glasford, 2008). Overall our findings imply that research focusing on political participation, including political studies that seek to understand and predict voting behavior, could glean more useful information from theoretical models of self-regulation and behavior change, than models of collective action.

**Collective Action: Not Just to Benefit the Ingroup**

Finally, our meta-analysis examined the question of who benefits from collective action and its moderating effect on the relationship between predictors and collective action. Perceived grievance, emotion, and efficacy beliefs had weaker associations with collective action when the action was taken on behalf of general public interest, relative to action for the ingroup or the outgroup. More importantly, for these predictors, no differences were found for action on behalf of the ingroup (the traditional definition of collective action) versus action on behalf of an outgroup. That is, there was no effect of the beneficiary of collective
action on the relationship between collective action and emotion, group identification, moral motives, past behavior, or intention.

In sum, whether acting to serve the ingroup or acting as allies to an outgroup, the overall associations between collective action and the seven predictors are similar. The current review is therefore the first to provide meta-analytic evidence that collective action is similarly motivated regardless of whether action is intended to benefit the ingroup or outgroup. In doing so, we provide a bridge that connects conceptual models of collective action benefitting the ingroup (e.g., SIRDE: Grant et al., 2015, 2017; AICAM: Sabucedo et al., 2018, 201; EMSICA: Thomas et al., 2009, 2011; SIMCA: van Zomeren et al., 2008) with theorizing on political solidarity (e.g., Subašić et al., 2008), intergroup prosociality (e.g., Louis et al., 2019), and advantaged groups acting taking action for equality (Iyer & Leach, 2010; Leach et al., 2002). Future primary research that directly compares ingroup versus outgroup-benefitting action, including action between two disadvantaged groups (i.e., intergroup prosociality between groups that experience discrimination from a third, common outgroup; Louis et al. 2019) will add nuance to this general finding.

**Characteristics of Collective Action Itself (Sometimes) Matter**

The current set of meta-analyses assessed a comprehensive range of moderators related to characteristics of the collective action itself. Our findings add to our understanding of other important conditions under which predictors are associated with greater collective action.

**When predicting intended rather than actual action.** The relationships between collective action and some of the predictors from the collective action literature (perceived grievance, emotion, group identification, and efficacy beliefs, but not moral motives) were larger in magnitude when studies examined intended action rather than actual behavior. This finding supports a fundamental proposition of the self-regulation perspective: intention and behavior are related but conceptually distinct (Fishbein & Ajzen, 2010; Gollwitzer, 2012; Sheeran, 2002). Combined with our finding that collective action intentions are a strong (indeed the strongest) proximal predictor of collective action behavior, we argue that there is
a good basis to develop primary studies that focus on translation of intention into behavior in the domain of collective action. Applying theories of self-regulation and behavior change to collective action behavior would emphasize the volitional, rather than only the motivational, aspects of collective action and bring the field closer to the goal of better predicting, if not changing, behavior in domains like intergroup relations, contentious politics, and social change (Fishbein & Ajzen, 2010; Gollwitzer, 2012; Sniehotta, 2009).

**When action is taken as a group.** By definition, collective action is, minimally, individual behavior; some forms are typically conducted in a group fashion (e.g., rallying) but others do not require the presence of co-actors (e.g., signing a petition, donating money). We found the contrast between individual versus group action to be influential for the relationship between group identification and collective action, such that group identification was more strongly associated with collective action when the behavior was to be carried out in groups. While this makes intuitive sense, this finding departs from traditional perspectives on collective action (e.g., Wright, 2009) which downplay the role of having others similarly engaged in the action. Our findings instead support the line of inquiry that emphasizes the role of crowd dynamics in collective action (e.g., the elaborated social identity model; Drury & Reicher, 2009). That is, the power of group identification in mobilizing people to action is amplified when the action in question is taken with co-actors. The presence of group members, such as during public protests, may even serve as a cue for group identification which in turn mobilizes action (van Zomeren & Spears, 2011)

**When action is taken in public.** The associations between collective action and efficacy beliefs, perceived grievance, and emotion were moderated by the anonymity of collective action, such that associations were weaker when collective action was anonymous, i.e., participants were not publicly identifiable when carrying out the behavior. The results for efficacy-driven action may be understood in terms of social judgments: when action is anonymous (and therefore there is no social cost in not achieving the goals of collective action), efficacy matters less. However, when individuals are engaging in visible, public action, a sense of efficacy matters more. Similarly, perceived grievance and emotion
become more important predictors of taking action when action is publicly visible and less so when action is anonymous. We interpret these findings as indicative of the expressiveness function inherent in grievance and emotion (e.g., van Stekelenburg & Klandermans, 2017). Collective action can serve the goal of expressing a personally held collective grievance, as well as displaying felt emotions.

**When action has a high monetary cost.** Collective action may require not just time, but also monetary and other material resources. Surprisingly, we found that the association between emotion and collective action was stronger when participation was materially costly, relative to when the action could be done for a minimal cost or for free. Relatively low-cost actions such as voter turnout may not require very emotionally engaged collective actors (Wang, 2013), compared to high-cost actions such as participating in strikes and riots which may attract those with higher emotional commitment for engaging. A similar effect was observed for the correlation between past behavior and collective action, which was stronger for more costly behaviors. This finding relates to other studies that find individuals who engage in high-cost action tend to have a longer personal history of participation (Corcoran et al., 2015; McAdam, 1986; Wiltfang & McAdam, 1991). It is unclear, however, why monetary cost only moderates collective action’s relationship with these two predictors and not the others. Further research may shed light on these findings that relate the financial costs of collective action to its various predictors.

**When action is habit-forming.** Certain forms of collective action are more conducive to repetition and habit (e.g., displaying symbols like political badges, attending regular activist meetups), while others are highly episodic and rare in terms of opportunity (e.g., joining a flash protest, voting in a referendum). We found a significant effect of habit potential on the associations between collective action and both perceived grievance and emotion. Perceived grievance and emotion were both associated with collective action more strongly when habit potential was moderate or high, indicating another boundary condition for these two predictors. This implies the regular availability of collective action opportunities is particularly important when perceived grievance and emotion are the motivational sources
of collective action. Without frequent opportunities to take action, perceived grievances may come to be tolerated as part of the status quo (Jost et al., 2015) while relevant emotions may fade quickly (van Troost et al., 2013) or be redirected in ways other than collective action (Stürmer & Simon, 2009).

**When action is taken either online or offline.** We found a significant effect of action taken online versus offline on the association between collective action and emotion, and between collective action and efficacy beliefs, but not along the online/offline contrast. Rather, there were stronger correlations for studies that measured behaviors that could be carried out either online or offline, as opposed to purely online or purely offline behaviors. Early work in this area emphasized the distinction between online versus offline collective action (e.g., Postmes & Brunsting, 2002); however this dichotomy may be becoming less and less meaningful with the increasing integration of online and offline life in general (Franklin, 2012) and the rise of digital activism in particular (Earl et al., 2010). Collective actions, more and more, are taking place both offline and online, as in the case of protesters tweeting and live-streaming their participation on social media and other digital channels for others to share, comment on, and support (Neumayer, 2020). Behaviors that can be completed either offline, online, or a combination of both present more opportunities to take action compared with behaviors that can be performed only online or only offline. A wider array of opportunity is linked with behavior change (Michie et al., 2011); more opportunities also decrease range restriction, leading to stronger correlations. Future research that systematically compares digital versus physical versus blended forms of collective action would be useful in addressing this question.

**When action requires more (or less) time.** Findings concerning the impact of time cost to take collective action were mixed. Perceived grievance and emotion were both associated with collective action when the action required little time investment, but not when the action was highly demanding in terms of time. This suggests that an upper limit may operate for certain predictors of collective action as time demands escalate. On the other hand, identifying with a group predicted collective action better when participation demanded
moderate or high amounts of time. Previous scholars have commented on the paradox of persistent participation (Louis, 2009; van Stekelenburg & Klandermans, 2013) which refers to the persistence of activism across time despite little or no success. In light of the current findings, it is unlikely that perceived grievance and emotions can account for such sustained participation. Instead, group identification may play a more central role in sustaining longer-term collective action.

When action is either normative or non-normative, violent or non-violent. Contrary to arguments that radical, nonnormative, and violent collective actions are associated with a low sense of efficacy (Tausch et al., 2011) or with a defense of strongly held moral values (Ginges & Atran, 2009), the current meta-analyses did not find any evidence that the normativity or violence of collective action affects the relationship between collective action and any of its predictors. In line with observations by Becker and Tausch (2015), however, we note that non-normative as well as violent forms of collective action are relatively understudied in the literature on collective action; in the current meta-analyses, such studies comprise less than 10% of the total dataset. Further studies that examine normativity and violence are needed to permit more nuanced analysis of the dynamics of these forms of collective action.

Methodological Characteristics

Finally, the current set of meta-analyses assessed a comprehensive range of moderators related to the methodology employed in primary studies. Our findings provide additional insights relevant to how future studies of collective action may be designed.

Number of actions measured. Mixed results were found when comparing studies employing multiple-action measures (where more than one action is studied, e.g., intentions to protest, sign petitions, and speak out publicly, aggregated into one scale; Kende et al., 2018) versus studies employing single-action measures (where only one action is studied, e.g., intentions to protest only; Kearns et al., 2018). Use of multiple-action measures was associated with larger correlations with perceived grievance, emotion, efficacy beliefs, and past behavior, but not with group identification, moral motives, or intention. On one hand,
multiple-action measures represent a wider sampling of the behavioral domain of collective action. This theoretically would provide for higher validity in measurement, resulting in larger effect sizes. On the other hand, single-action measures offer more precision and permit differentiation of different collective action behaviors, instead of aggregating potentially non-equivalent actions into a single measure. It may be that multiple-action measures were susceptible to common methods variance in some studies leading to larger correlations, though it remains unclear why this would be observed only for some predictors but not others. Studies that systematically vary the measurement of collective action will be valuable in shedding more light on this issue.

**Self-reported versus observed action.** We found no moderating effect for the use of self-reports versus observational measures on the associations between predictors and collective action behavior. Despite calls against what is sometimes described as an overreliance on self-reports in social psychology (e.g., Baumeister et al., 2007), the current meta-analysis did not suggest superior effectiveness of one measurement method over the other, at least in terms of their influence on the association between collective action behavior and its predictors. Given the practical advantages of self-reports (e.g., Paulhus & Vazire, 2007) and the challenges imposed by collecting observational data on collective action behavior, researchers may take reassurance that the studies utilizing self-reports of collective action behavior are comparable, at least in terms of correlational effect sizes, to those using objective behavioral data.

**Correlational versus experimental designs.** The use of correlational versus experimental designs did not significantly moderate the correlations between collective action and predictors. This finding is consistent with previous meta-analysis (van Zomeren, Postmes, & Spears, 2008). Because the majority of studies on collective action are based on correlational data, concerns are sometimes raised about the issue of causality in collective action (e.g., van Stekelenburg & Klandermans, 2013). However, our findings indicate that, at least in terms of observed effect sizes, correlational and experimental studies are
comparable, which future researchers may wish to take into consideration when weighing concerns for internal versus external validity.

**Cross-sectional versus longitudinal studies.** We found significantly larger correlations for cross-sectional studies compared to longitudinal studies for collective action’s associations with perceived grievance and with group identification. However, this effect was not found for the associations with other predictors. The presence of intervening external events in longitudinal designs (e.g., changes in the status quo, changes in the group leading the action) could, in theory, produce changes in the levels of perceived grievance or of group identification, attenuating the correlations between their original measures and subsequent collective action. It is unclear however, why this was observed only for perceived grievance and group identification. Future studies that measure both predictors and collective action at multiple time points can shed light on the dynamic processes involved if predictors like perceived grievance or group identification do fluctuate over time.

**Sample characteristics: age, gender, and student status.** Lastly, we examined the influence of age, gender, and student status on effect sizes. Age was a significant moderator of the association between collective action and efficacy beliefs, and between collective action and moral motives. Younger participants appeared to act more strongly on efficacy beliefs and on moral motives than did older participants, though these moderator effects were extremely small and almost zero. Gender did not moderate any of the associations between collective action and the predictors, similar to previous meta-analytic findings (van Zomeren, Postmes, & Spears, 2008). Non-student samples appeared more likely to translate their collective action intentions into behavior, whereas mixed samples appeared to act more strongly on grievance and on group identification compared to student and non-student samples. These findings call into question the biographical availability hypothesis (Beyerlein & Hipp, 2006; Petrie, 2004) which argues that personal characteristics like being younger, being male, and being a student consistently set the stage for collective action mobilization. As the associations between collective action and its predictors generally appear robust to
these sample characteristics, researchers studying collective action should continue to employ diverse samples in terms of age, gender, and student status.

**Theoretical, Methodological, and Practical Implications**

The current review provides evidence that there are more robust predictors of collective action than have been previously advanced in existing theoretical models, attesting to the complexity of collective action as a social psychological phenomenon. As such, our findings build upon and extend previous integrative attempts to answer the question of why people take collective action, with a number of theoretical, methodological and practical implications which we discuss below.

**There are multiple pathways to (intending to take) action.** After the recognition that single theoretical traditions such as relative deprivation (Runciman, 1966) and resource mobilization (e.g., Klandermans, 1984) could not adequately account for why people take action, conceptual models shifted to an *integrative* mode to explain collective action. The aim of such integrative models was to identify the most optimal constellation of factors that drive people to take collective action (van Stekelenburg & Klandermans, 2017; van Zomeren, Kutlaca, & Turner-Zwinkels, 2018). Earlier models attempted to wed constructs from two traditions, such as a combination of resource mobilization theory (Klandermans, 1984) and social identity theory (Tajfel & Turner, 1979) into a dual pathway model of collective action (Stürmer & Simon, 2004a, 2004b, 2009). More recent attempts at integration have led to a host of different models that identify three or more pathways to collective action, including the social identity model of collective action (SIMCA; van Zomeren, Kutlaca, & Turner-Zwinkels, 2018; van Zomeren, Postmes, & Spears, 2008), the encapsulation model of social identity in collective action (EMSICA; Thomas et al., 2009, 2011), the social identity, relative deprivation, collective efficacy model (SIRDE; Grant et al., 2015, 2017), the integrative model of protest motivation (van Stekelenburg & Klandermans, 2007, 2013, 2017), and the axiological-identitary collective action model (AICAM; Sabucedo et al., 2018, 2019).
Findings from our meta-analyses offer the lesson that placing primacy solely on variables such as group identification or moral motives does not adequately capture the complexity of people’s attempts to take collective action. By integrating constructs from the tradition of self-regulation and behavior change, we have shown that intentions to take action, past behavior, and individual efficacy beliefs are among the important, multiple pathways to collective action. As asserted by integrative scholars of collective action, “such models are always works in progress and need to become more complex in order to do justice to the social world in which individuals engage in collective action” (van Zomeren et al., 2018, p. 153). Existing theoretical models of collective action need to broaden their scope in order to incorporate the variables shown in the current meta-analyses to be significant predictors of taking action.

Furthermore, examination of the correlations between collective action and these seven variables across different moderator analyses suggests that perceived grievance and emotion are the most sensitive to various moderator effects, while intention, in contrast, stands as the most robust. Perceived grievance and emotion are also the two broadest predictors of collective action. Perceived grievance can take on a wide range of forms, from relative deprivation (the perception that one’s group is not getting what they deserve compared to other groups; Walker & Smith, 2002), to sudden group threats (Walsh, 1981), to being the target of prejudice and discrimination (Major, Quinton & McCoy, 2002). In the meta-analysis of the relationship between collective action and perceived grievance, we investigated, via moderator analysis, only a particular subset of perceived grievance (procedural injustice versus distributive injustice: Tyler, 2001; Tyler & Lind, 2002). Likewise, emotions come in many discrete forms (Flam, 2005; Iyer & Leach, 2008; Smith & Mackie, 2015; Thomas et al., 2009a, 2009b) and can also be categorized in various ways (Roseman, 2018). In the meta-analysis of the relationship between collective action and emotion, we investigated only type of discrete emotion and type of general affect (differentiated by valence) as two moderators of the association between emotion and collective action. Future studies can investigate other forms of perceived grievance (for example, comparing different
types of discrimination; Fincus, 1996) and other ways of classifying emotions (for example, high versus low activation; Barrett & Russell, 1999).

**Intention is the largest, most robust predictor of taking action.** Findings from our meta-analysis provide evidence for an important lesson that would be familiar to behavior change researchers: intentions are the single largest predictor of behavior (Armitage & Conner, 2001; Fishbein & Ajzen, 2010; McEachan et al., 2016; Sheeran, 2002; Sheppard et al., 1988; Warshaw & Davis, 1985b; Webb & Sheeran, 2006). Our findings establish that this is true for collective action. Simply put: individuals take collective action because they have formed intentions to do so. This implies a number of points. First, collective action is goal-oriented, both motivational and volitional, not an “irrational” behavior resulting from group influence (Le Bon, 1895/2002; McDougall, 1920; see also Drury & Stott, 2013; Stott & Drury, 2017). By taking this view, collective action may then be understood using the same motivational and volitional frameworks that underpin other human behaviors.

Second, other predictors of collective action such as perceived grievance are likely to be relatively distal compared to intentions. According to various theories of self-regulation, intentions are the most important immediate antecedent of behavior (Armitage & Conner, 2001; Fishbein & Ajzen, 2010; McEachan et al., 2016; Sheeran, 2002; Sheppard et al., 1988; Warshaw & Davis, 1985b; Webb & Sheeran, 2006). Intentions represent a person’s subjective readiness to engage in a particular action (Ajzen, 1991, 2012), especially in the service of particular goals (Ajzen & Kruglanski, 2019). We follow previous theorizing about motivation for collective action (van Zomeren, 2013; van Stekelenburg & Klandermans, 2017), and further propose that the combined pathways of group identification, emotion, efficacy beliefs, moral motives, and perceived grievance constitute a ‘motivational constellation’ (van Stekelenburg et al., 2011) for collective action. This motivational constellation, in turn, leads to the formation of intention to take collective action (see Figure 2). The combined processes that result in intention constitute the first half of this proposed conceptual model which divides the social psychology of collective action into two phases. First, group members go through a *motivational* phase, where the individual sets the goal of
taking action for group, rather than personal, interests, to the extent that they are influenced by their perceptions of group grievance, by group-based emotion, by beliefs about efficacy, and by moral motives. Second, once the intention is formed, group members proceed to a volitional phase, where the individual implements and initiates goal-orientated behaviour (‘takes action’). Thus in this model, intention mediates the relationship between motivational factors (perceived grievance, emotion, group identification, efficacy beliefs, moral motives) and actual collective action behavior. By separating motivational and volitional phases to collective action, the model opens up a conceptual space to explore the factors that mediate and moderate the relationship between collective action intentions and actual collective action behaviour.

Motivation and volition are both important for collective action. Because of their focus on what motivates people to take collective action, previous theoretical models such as the social identity model of collective action (SIMCA; van Zomeren, Kutlaca, & Turner-Zwinkels, 2018; van Zomeren, Postmes, & Spears, 2008), the encapsulation model of social identity in collective action (EMSICA; Thomas et al., 2009, 2011), the social identity, relative deprivation, collective efficacy model (SIRDE; Grant et al., 2015, 2017), the integrative model of protest motivation (van Stekelenburg & Klandermans, 2007, 2013, 2017), and the axiological-identitary collective action model (AICAM; Sabucedo et al., 2018, 2019) have been silent on the problem of translating collective action intentions to actual collective action behavior. Indeed, these models are arguably motivational frameworks, rather than volitional frameworks. Given our meta-analytic evidence for a gap between intentions and behavior in collective action, future research would be well-served to move from a purely motivational (goal-setting) view, to a combined motivational and volitional (goal-striving) approach to collective action behavior (Gollwitzer, 2012; see Oegema & Klandermans, 1994, for an earlier example from sociology) as depicted in Figure 2. In practice, this implies employing prospective designs to measure collective action intentions and subsequent behavior. This will allow researchers to provide important knowledge on how to effectively bridge volition to action in this domain.
Implications for promoting actual collective action. Our meta-analyses also present implications for campaigners, social movement organizers, and other practitioners interested in promoting collective action. First, targeting multiple motivational pathways is important. People act on many different motives in taking collective action; they mobilize because they feel particular emotions, identify with a particular group, believe that they can act to achieve group aims, or perceive a grievance. Second, apart from targeting such motivation constellations, promoting the formation of intentions to take collective action is critical. Our analysis indicates that intention is the largest and most robust predictor of collective action. Groups interested in mobilizing people to action may need to ensure that their campaigns facilitate effective intention formation among their target audiences.

Limitations and Future Directions

A number of limitations of the current meta-analyses should be acknowledged. First, there may be unpublished studies that were not captured by the search strategy, leading to publication bias in the meta-analyses. Publication bias was handled using statistical techniques, i.e., Duval and Tweedie’s (2000) trim-and-fill procedure, to recompute adjusted effect sizes. However, future work should expand the search strategy to include broad calls for unpublished studies in order to minimise any publication bias.

Second, although our choice of predictors for this review was informed by research and theory in both the collective action and self-regulation literatures, we necessarily had to overlook other plausible predictors in the literature, for example, attitudes toward protest (e.g., Sweetman et al., 2019) and individual differences such as personality traits (e.g., Duncan & Stewart, 2007; Omoto et al., 2010) in favour of the seven predictors here. Likewise, for the predictors included in the meta-analyses, range restriction is another concern that may affect overall correlational effect sizes. No less importantly, the distinction between predictors and moderators is a key conceptual limitation of the study. For instance, group identification (a predictor in the current review) is sometimes conceptualized not as an antecedent of collective action, but as a variable that moderates the relationship between a predictor, such as anger, and subsequent collective action (e.g., Iyer & Ryan, 2009).
According to that view, anger is more likely to lead to collective action for individuals who identify more strongly with the group (and thus care about group interests), compared to low-identifiers who are theorised to care more about individual interests. In the current review, however, we follow the more dominant theoretical perspective that group identification is an antecedent predictor of collective action (Sabucedo et al., Thomas et al., 2011; van Stekelenberg & Klandermans, 2013; van Zomeren et al., 2008, 2018).

Third, a few moderators related to characteristics of the collective action had less than optimal interrater reliabilities. Specifically, time cost, material cost, and anonymity had κ values ranging from .48 to .54; in part due to the high degree of inference in coding them. Although we attempted to standardize procedures by creating a codebook with specific operationalizations that we refined through second-coding and discussion, we acknowledge that these ultimately rely on subjective judgment of raters. A certain degree of caution is thus warranted in drawing conclusions for these three moderators.

A fourth limitation lies in occasions when moderator analysis could not be conducted, fully or in part, because of insufficient number of studies. For example, few studies examined violent collective action, which did not permit moderator analysis comparing violent versus non-violent action for certain predictors like intention and past behavior. Likewise, few studies investigated high time cost collective action, while many more studies measured actions that had moderate or mixed levels of time cost. Future primary studies are needed to systematically assess the moderating effect of these characteristics of collective action on the relationship between particular predictors and taking action.

Finally, the present analysis is limited by the univariate nature of the meta-analyses of the general predictors of collective action. This means that it is difficult to disentangle the impact of each predictor relative to each other, and of each significant moderator. It appears logical that the predictors in our review would interact with each other in complex ways to predict collective action. Indeed, the intricate modelling of these interrelationships has stimulated the proliferation of various integrative models of collective action (e.g., Grant et al., 2015, 2017; Sabucedo et al., 2018, 2019; Thomas et al., 2009; van Stekelenburg &
Klandermans, 2007, 2013, 2017; van Zomeren, Kutlaca, & Turner-Zwinkels, 2018; van Zomeren, Postmes, & Spears, 2008). Procedures for multivariate meta-analysis exist; however, these require a dataset of a sufficient number of studies employing the same set of predictors to generate within-study correlational matrices. Apart from practical difficulties, there are a number of known limitations to multivariate meta-analysis, including additional statistical assumptions that are harder to meet and exacerbation of publication bias effects (Jackson et al., 2011). Perhaps most importantly, comparisons of univariate versus multivariate meta-analyses indicate that any improvement in estimating average effect sizes are small, with little to no actual gain in precision (Jackson et al., 2011; Simel & Bossuyt, 2009; Sohn, 2000). Nevertheless, future reviews should consider examining and evaluating particular models of collective action using multivariate meta-analysis, similar to meta-analytic reviews of models in behavior change, for example, studies that all utilize the theory of planned behavior (e.g., Armitage & Conner, 2001; Cooke & Sheeran, 2004; McEachan et al., 2016). Such a multivariate approach will permit direct meta-analytic tests of a comprehensive, multivariate model of collective action that integrates multiple predictors and pathways (such as the one proposed in Figure 2).

**Conclusions**

The present seven meta-analyses provide the most comprehensive quantitative review of predictors of collective action to date, drawing on two heretofore distinct literatures on collective action and self-regulation. We examined collective action intentions and behavior not only by members of disadvantaged groups, but also by advantaged group members acting on behalf of the disadvantaged, opinion-based groups, and the public at large, in an expanded range of forms of action. In the first meta-analysis of the intention-behavior relationship in the domain of collective action, we found that intention had a large correlation with collective action. Findings also showed that collective action was predicted by emotion (especially anger, shame, sympathy, discontent, and guilt), group and individual efficacy, group identification (especially politicized group identification), moral motives, past collective action behavior and, to a lesser extent, perceived grievance. These
predictors had generally robust effects whether collective action was aimed at benefiting the disadvantaged ingroup or intended to benefit an outgroup as a form of allyship. This review demonstrates that collective action intentions and behavior are distinct, intentions are the single largest and most robust predictor for collective action, and collective action and self-regulation perspectives can be combined to further our understanding of why people engage in collective action to advance group interests, status, and power.
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1 Because of the large number of search results, we departed from the initial protocol and restricted our search to three electronic databases: Scopus, Web of Science, and PsycINFO.

2 In the course of the review, we further refined the list of moderators examined in the meta-analysis. Specifically, we coded for and analyzed a number of additional moderators not in the original protocol: type of group identification, type of efficacy beliefs, type of moral motive, type of intention, and specific form of action. In addition, some variables (permeability of group boundaries, identity choice, and approach for collective action) were reconsidered to be less theoretically informative and thus no longer coded for during the review.
Table 1

Summary of Effect Sizes for the Associations Between Predictors and Collective Action.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$k$</th>
<th>$N$</th>
<th>$r_+$</th>
<th>95% CI</th>
<th>$Z$</th>
<th>$Q$</th>
<th>$I^2$ (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LL</td>
<td></td>
<td>UL</td>
<td></td>
</tr>
<tr>
<td>Perceived grievance</td>
<td>227</td>
<td>614,813</td>
<td>.25</td>
<td>.23</td>
<td>.27</td>
<td>26.84*</td>
<td>6570.64*</td>
</tr>
<tr>
<td>Emotion</td>
<td>273</td>
<td>111,683</td>
<td>.33</td>
<td>.30</td>
<td>.36</td>
<td>22.75*</td>
<td>6006.16*</td>
</tr>
<tr>
<td>Group identification</td>
<td>349</td>
<td>133,147</td>
<td>.35</td>
<td>.32</td>
<td>.37</td>
<td>26.76*</td>
<td>7723.26*</td>
</tr>
<tr>
<td>Efficacy beliefs</td>
<td>333</td>
<td>341,973</td>
<td>.36</td>
<td>.33</td>
<td>.38</td>
<td>22.90*</td>
<td>21165.37*</td>
</tr>
<tr>
<td>Moral motives</td>
<td>40</td>
<td>14,182</td>
<td>.41</td>
<td>.36</td>
<td>.46</td>
<td>13.66*</td>
<td>519.09*</td>
</tr>
<tr>
<td>Intention (full sample)</td>
<td>35</td>
<td>16,739</td>
<td>.66</td>
<td>.57</td>
<td>.73</td>
<td>10.64*</td>
<td>2940.15*</td>
</tr>
<tr>
<td>Intention (sensitivity-adjusted)</td>
<td>25</td>
<td>5,776</td>
<td>.49</td>
<td>.41</td>
<td>.56</td>
<td>10.65*</td>
<td>317.99*</td>
</tr>
<tr>
<td>Past behavior</td>
<td>37</td>
<td>10,169</td>
<td>.43</td>
<td>.37</td>
<td>.49</td>
<td>12.72*</td>
<td>427.32*</td>
</tr>
</tbody>
</table>

*Note. $k$ = number of observations; $N$ = number of participants; $r_+$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_+$; LL = lower limit; UL = upper limit; $Z$ = $z$ test for the mean effect size; $Q$ = Cochran’s (1952) $Q$ statistic; $I^2$ = Higgins and Thompson’s (2002) index of heterogeneity. Sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.

*p < .001
Table 2

Subgroup Analysis of the Moderating Effect of Type of Perceived Grievance on the Association Between Perceived Grievance and Collective Action.

<table>
<thead>
<tr>
<th>Type of perceived grievance</th>
<th>k</th>
<th>( r_+ )</th>
<th>95% CI</th>
<th>( I^2 ) (%)</th>
<th>Q</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>LL</td>
<td>UL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributive injustice</td>
<td>10</td>
<td>.39</td>
<td>.26</td>
<td>.51</td>
<td>87.37</td>
<td></td>
</tr>
<tr>
<td>Procedural injustice</td>
<td>24</td>
<td>.26</td>
<td>.18</td>
<td>.34</td>
<td>90.08</td>
<td></td>
</tr>
<tr>
<td>Mixed/general injustice</td>
<td>25</td>
<td>.26</td>
<td>.19</td>
<td>.34</td>
<td>94.64</td>
<td></td>
</tr>
</tbody>
</table>

Note. \( k \) = number of observations; \( r_+ \) = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of \( r_+ \); LL = lower limit; UL = upper limit; \( I^2 \) = Higgins and Thompson's (2002) index of heterogeneity; \( Q \) = Cochran's (1952) \( Q \) statistic.
Table 3

Subgroup Analysis of the Moderating Effect of Type of Emotion on the Association Between Emotion and Collective Action.

<table>
<thead>
<tr>
<th>Type of emotion</th>
<th>k</th>
<th>( r_+ )</th>
<th>95% CI</th>
<th>( I^2 ) (%)</th>
<th>Q</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>LL</td>
<td>UL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discrete emotion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shame</td>
<td>8</td>
<td>.41</td>
<td>.23</td>
<td>.56</td>
<td>4.68</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Anger</td>
<td>210</td>
<td>.38</td>
<td>.35</td>
<td>.41</td>
<td>94.71</td>
<td></td>
</tr>
<tr>
<td>Sympathy</td>
<td>21</td>
<td>.38</td>
<td>.28</td>
<td>.47</td>
<td>92.92</td>
<td></td>
</tr>
<tr>
<td>Discontent</td>
<td>5</td>
<td>.32</td>
<td>.11</td>
<td>.51</td>
<td>80.70</td>
<td></td>
</tr>
<tr>
<td>Guilt</td>
<td>26</td>
<td>.30</td>
<td>.21</td>
<td>.39</td>
<td>85.83</td>
<td></td>
</tr>
<tr>
<td>Hope</td>
<td>15</td>
<td>.25</td>
<td>.12</td>
<td>.37</td>
<td>74.41</td>
<td></td>
</tr>
<tr>
<td>Sadness</td>
<td>11</td>
<td>.21</td>
<td>.04</td>
<td>.36</td>
<td>74.95</td>
<td></td>
</tr>
<tr>
<td>Fear</td>
<td>28</td>
<td>.10</td>
<td>.00</td>
<td>.20</td>
<td>91.30</td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>7</td>
<td>-0.07</td>
<td>-0.25</td>
<td>.12</td>
<td>96.26</td>
<td></td>
</tr>
<tr>
<td>Frustration</td>
<td>7</td>
<td>-0.18</td>
<td>-0.36</td>
<td>.02</td>
<td>92.26</td>
<td></td>
</tr>
<tr>
<td>General affect</td>
<td></td>
<td>0.07</td>
<td>.789</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative affect</td>
<td>16</td>
<td>.26</td>
<td>.15</td>
<td>.37</td>
<td>90.94</td>
<td></td>
</tr>
<tr>
<td>Positive affect</td>
<td>11</td>
<td>.29</td>
<td>.15</td>
<td>.41</td>
<td>95.08</td>
<td></td>
</tr>
</tbody>
</table>

*Note. k = number of observations; \( r_+ \) = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of \( r_+ \); LL = lower limit; UL = upper limit; \( I^2 \) = Higgins and Thompson’s (2002) index of heterogeneity; Q = Cochran’s (1952) Q statistic.*
Table 4

Subgroup Analysis of the Moderating Effect of Type of Group Identification on the Association Between Group Identification and Collective Action.

<table>
<thead>
<tr>
<th>Type of group identification</th>
<th>$k$</th>
<th>$r_+$</th>
<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>$Q$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>With politicized groups</td>
<td>140</td>
<td>.47</td>
<td>.44</td>
<td>.50</td>
<td>95.02</td>
<td>82.89</td>
</tr>
<tr>
<td>With non-politicized groups</td>
<td>241</td>
<td>.27</td>
<td>.25</td>
<td>.30</td>
<td>93.01</td>
<td></td>
</tr>
</tbody>
</table>

Note. $k$ = number of observations; $r_+$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_+$; LL = lower limit; UL = upper limit; $I^2$ = Higgins and Thompson’s (2002) index of heterogeneity; $Q$ = Cochran’s (1952) $Q$ statistic.
Table 5

Subgroup Analysis of the Moderating Effect of Type of Efficacy Beliefs on the Association Between Efficacy Beliefs and Collective Action.

<table>
<thead>
<tr>
<th>Type of efficacy beliefs</th>
<th>k</th>
<th>$r_+$</th>
<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>Q</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>LL</td>
<td>UL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group-focused</td>
<td>191</td>
<td>.39</td>
<td>.36</td>
<td>.42</td>
<td>92.80</td>
<td></td>
</tr>
<tr>
<td>Individual-focused</td>
<td>107</td>
<td>.34</td>
<td>.28</td>
<td>.39</td>
<td>99.11</td>
<td></td>
</tr>
<tr>
<td>Action-focused</td>
<td>73</td>
<td>.27</td>
<td>.22</td>
<td>.32</td>
<td>93.96</td>
<td></td>
</tr>
<tr>
<td>Mixed</td>
<td>26</td>
<td>.26</td>
<td>.19</td>
<td>.33</td>
<td>93.83</td>
<td></td>
</tr>
</tbody>
</table>

Note. $k$ = number of observations; $r_+$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_+$; LL = lower limit; UL = upper limit; $I^2$ = Higgins and Thompson’s (2002) index of heterogeneity; $Q$ = Cochran’s (1952) $Q$ statistic.
Table 6
Subgroup Analysis of the Moderating Effect of Type of Moral Motive on the Association Between Moral Motives and Collective Action.

<table>
<thead>
<tr>
<th>Type of moral motive</th>
<th>k</th>
<th>$r_+  $</th>
<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>Q</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>LL</td>
<td>UL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moral conviction</td>
<td>31</td>
<td>.39</td>
<td>.33</td>
<td>.45</td>
<td>81.59</td>
<td></td>
</tr>
<tr>
<td>Moral obligation</td>
<td>17</td>
<td>.46</td>
<td>.38</td>
<td>.54</td>
<td>95.01</td>
<td></td>
</tr>
</tbody>
</table>

Note. $k =$ number of observations; $r_+ =$ correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_+; LL =$ lower limit; UL = upper limit; $I^2 =$ Higgins and Thompson's (2002) index of heterogeneity; $Q =$ Cochran's (1952) $Q$ statistic.
Table 7

Subgroup Analysis of the Moderating Effect of Type of Intention on the Association Between Intention and Collective Action Behavior.

<table>
<thead>
<tr>
<th>Type of intention</th>
<th>k</th>
<th>$r_+$</th>
<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>Q</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>LL</td>
<td>UL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full sample</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32.98</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Intention</td>
<td>19</td>
<td>.78</td>
<td>.73</td>
<td>.83</td>
<td>98.20</td>
<td></td>
</tr>
<tr>
<td>Expectation</td>
<td>9</td>
<td>.47</td>
<td>.26</td>
<td>.57</td>
<td>94.84</td>
<td></td>
</tr>
<tr>
<td>Willingness</td>
<td>5</td>
<td>.46</td>
<td>.24</td>
<td>.64</td>
<td>61.83</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of intention</th>
<th>k</th>
<th>$r_+$</th>
<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>Q</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensitivity-adjusted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.62</td>
<td>.164</td>
</tr>
<tr>
<td>Intention</td>
<td>9</td>
<td>.59</td>
<td>.47</td>
<td>.69</td>
<td>93.04</td>
<td></td>
</tr>
<tr>
<td>Expectation</td>
<td>9</td>
<td>.43</td>
<td>.28</td>
<td>.55</td>
<td>94.84</td>
<td></td>
</tr>
<tr>
<td>Willingness</td>
<td>5</td>
<td>.46</td>
<td>.26</td>
<td>.62</td>
<td>61.83</td>
<td></td>
</tr>
</tbody>
</table>

Note. $k$ = number of observations; $r_+$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_+$; LL = lower limit; UL = upper limit; $I^2$ = Higgins and Thompson’s (2002) index of heterogeneity; $Q = \text{Cochran’s (1952)}$ Q statistic. Sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 8

Subgroup Analysis of the Moderating Effect of the Degree of Correspondence Between Intention and Behavior on the Association Between Intention and Collective Action Behavior.

<table>
<thead>
<tr>
<th>Degree of correspondence</th>
<th>$k$</th>
<th>$r_+$</th>
<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>$Q$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>LL</td>
<td>UL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full sample</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.34</td>
<td>.002</td>
</tr>
<tr>
<td>High</td>
<td>26</td>
<td>.71</td>
<td>.63</td>
<td>.78</td>
<td>98.86</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>10</td>
<td>.43</td>
<td>.21</td>
<td>.60</td>
<td>85.04</td>
<td></td>
</tr>
<tr>
<td>Sensitivity-adjusted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.25</td>
<td>.264</td>
</tr>
<tr>
<td>High</td>
<td>16</td>
<td>.52</td>
<td>.42</td>
<td>.60</td>
<td>94.15</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>10</td>
<td>.43</td>
<td>.30</td>
<td>.55</td>
<td>85.04</td>
<td></td>
</tr>
</tbody>
</table>

Note. $k$ = number of observations; $r_+$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_+$; LL = lower limit; UL = upper limit; $I^2$ = Higgins and Thompson’s (2002) index of heterogeneity; $Q$ = Cochran’s (1952) $Q$ statistic. Sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 9

Subgroup Analysis of the Moderating Effect of the Degree of Correspondence Between Past and Subsequent Behavior on the Association Between Past Behavior and Collective Action.

<table>
<thead>
<tr>
<th>Degree of correspondence</th>
<th>$k$</th>
<th>$r_+$</th>
<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>Q</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>LL</td>
<td>UL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>13</td>
<td>.58</td>
<td>.50</td>
<td>.65</td>
<td>84.93</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Low</td>
<td>24</td>
<td>.38</td>
<td>.30</td>
<td>.45</td>
<td>91.47</td>
<td></td>
</tr>
</tbody>
</table>

*Note. $k$ = number of observations; $r_+$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_+$; LL = lower limit; UL = upper limit; $I^2$ = Higgins and Thompson’s (2002) index of heterogeneity; Q = Cochran’s (1952) Q statistic.*
### Table 10

**Subgroup Analysis of the Moderating Effect of Specific Form of Action on the Associations Between Predictors and Collective Action.**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Form of Action</th>
<th>$k$</th>
<th>$r_\ast$</th>
<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>Q</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perceived grievance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joining protest</td>
<td>21</td>
<td>.16</td>
<td>.12</td>
<td>.20</td>
<td>94.42</td>
<td></td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Signing petition</td>
<td>17</td>
<td>.21</td>
<td>.16</td>
<td>.26</td>
<td>91.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voting</td>
<td>13</td>
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Table 1

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Note. k = number of observations; \( r_i \) = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of \( r_i \); LL = lower limit; UL = upper limit; \( I^2 \) = Higgins and Thompson’s (2002) index of heterogeneity; \( Q \) = Cochran’s (1952) \( Q \) statistic. Dash [-] indicates analysis not run due to insufficient number of studies. Dash [-] indicates analysis not run due to insufficient number of studies. Sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 11

Subgroup Analysis of the Moderating Effect of Type of Measurement of Collective Action on the Associations Between Predictors and Collective Action.

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<th>$I^2$ (%)</th>
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Note. $k =$ number of observations; $r_+ =$ correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_+$; LL = lower limit; UL = upper limit; $I^2 = $ Higgins and Thompson’s (2002) index of heterogeneity; $Q =$ Cochran’s (1952) $Q$ statistic.
### Table 12

**Subgroup Analysis of the Moderating Effect of Type of Collective Actor on the Associations Between Predictors and Collective Action.**

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Note. \( k \) = number of observations; \( r_+ \) = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of \( r_+ \); LL = lower limit; UL = upper limit; \( I^2 \) = Higgins and Thompson's (2002) index of heterogeneity; \( Q \) = Cochran's (1952) Q statistic; sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
### Table 13

**Subgroup Analysis of the Moderating Effect of Beneficiary of Collective Action on the Associations Between Predictors and Collective Action.**

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Notes. $k$ = number of observations; $r_\omega$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_\omega$; LL = lower limit; UL = upper limit; $I^2$ = Higgins and Thompson’s (2002) index of heterogeneity; $Q$ = Cochran’s (1952) $Q$ statistic; dash [-] indicates analysis not run due to insufficient number of studies; sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 14

Subgroup Analysis of the Moderating Effect of Normativity on the Associations Between Predictors and Collective Action.

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<th>$I^2$ (%)</th>
<th>Q</th>
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Note. $k$ = number of observations; $r_*$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_*$; LL = lower limit; UL = upper limit; $I^2$ = Higgins and Thompson’s (2002) index of heterogeneity; Q = Cochran’s (1952) Q statistic; dash [-]
indicates analysis not run due to insufficient number of studies; sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 15

Subgroup Analysis of the Moderating Effect of Violence on the Associations Between Predictors and Collective Action.

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<th>$I^2$ (%)</th>
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</table>

Note. $k =$ number of observations; $r_+$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_+$; LL = lower limit; UL = upper limit; $I^2 =$ Higgins and Thompson’s (2002) index of heterogeneity; $Q =$ Cochran’s (1952) $Q$ statistic; dash [-] indicates analysis not run due to insufficient number of studies; sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 16

Subgroup Analysis of the Moderating Effect of Time Cost on the Associations Between Predictors and Collective Action.

<table>
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<th>( I^2 ) (%)</th>
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Note. \( k \) = number of observations; \( r_s \) = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of \( r_s \); LL = lower limit; UL = upper limit; \( I^2 \) = Higgins and
Thompson’s (2002) index of heterogeneity; $Q = \text{Cochran’s (1952) } Q\text{ statistic};$ dash [-] indicates analysis not run due to insufficient number of studies; sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 17

Subgroup Analysis of the Moderating Effect of Material Cost on the Associations Between Predictors and Collective Action.

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<th>$I^2$ (%)</th>
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*Note.* $k =$ number of observations; $r_+$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_+$; LL = lower limit; UL = upper limit; $I^2$ = Higgins and Thompson’s (2002) index of heterogeneity; $Q =$ Cochran’s (1952) $Q$ statistic; dash [-] indicates analysis not run due to insufficient number of studies; sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 18

Subgroup Analysis of the Moderating Effects of Habit Potential on the Associations Between Predictors and Collective Action.

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*Note. k = number of observations; \(r_+\) = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of \(r_+\); LL = lower limit; UL = upper limit; \(I^2\) = Higgins and Thompson's (2002) index of heterogeneity; Q = Cochran's (1952) Q statistic; dash [-] indicates analysis not run due to insufficient number of studies; sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.*
### Subgroup Analysis of the Moderating Effect of Anonymity on the Associations Between Predictors and Collective Action.

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<td>$I^2$ (%)</td>
<td>Q</td>
<td>p</td>
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Note. $k =$ number of observations; $r_+$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_+$; LL = lower limit; UL = upper limit; $I^2 =$ Higgins and Thompson’s (2002) index of heterogeneity; $Q =$ Cochran’s (1952) $Q$ statistic; dash [-] indicates analysis not run due to insufficient number of studies; sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 20

Subgroup Analysis of the Moderating Effect of Number of Actors on the Associations Between Predictors and Collective Action.

<table>
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<th>Predictor</th>
<th>Number of Actors</th>
<th>k</th>
<th>$r_+$</th>
<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>Q</th>
<th>p</th>
</tr>
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<tbody>
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<td>.17</td>
<td>.28</td>
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Mixed/varies | 26 | .46 | .38 | .53 | 92.78

Note. \( k \) = number of observations; \( r_+ \) = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of \( r_+ \); LL = lower limit; UL = upper limit; \( I^2 \) = Higgins and Thompson’s (2002) index of heterogeneity; \( Q \) = Cochran’s (1952) \( Q \) statistic; dash [-] indicates analysis not run due to insufficient number of studies; sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 21

Subgroup Analysis of the Moderating Effect of Online vs. Offline Action on the Associations Between Predictors and Collective Action.

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<th>Predictor</th>
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<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>Q</th>
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Mixed/varies 20 .46 .38 .53 92.35

*Note.* $k =$ number of observations; $r_+ =$ correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_+;$ LL = lower limit; UL = upper limit; $I^2 =$ Higgins and Thompson's (2002) index of heterogeneity; $Q =$ Cochran's (1952) $Q$ statistic; dash [-] indicates analysis not run due to insufficient number of studies; sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 22

Subgroup Analysis of the Moderating Effect of Number of Actions Measured on the Associations Between Predictors and Collective Action.

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<th>$I^2$ (%)</th>
<th>Q</th>
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<td>0.30</td>
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<td>0.38</td>
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<td></td>
</tr>
<tr>
<td>Intention (all studies)</td>
<td></td>
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<td>2.41</td>
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<td>Multiple</td>
<td>7</td>
<td>0.54</td>
<td>0.28</td>
<td>0.72</td>
<td>91.57</td>
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</tr>
<tr>
<td></td>
<td>Single</td>
<td>26</td>
<td>0.70</td>
<td>0.61</td>
<td>0.77</td>
<td>98.97</td>
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</tr>
<tr>
<td>Intention (sensitivity adjusted)</td>
<td></td>
<td></td>
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<td></td>
<td>0.56</td>
<td>.453</td>
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<td>7</td>
<td>0.54</td>
<td>0.41</td>
<td>0.65</td>
<td>91.57</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>16</td>
<td>0.48</td>
<td>0.39</td>
<td>0.56</td>
<td>90.72</td>
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</tr>
<tr>
<td>Past behavior</td>
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<td>.012</td>
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<td>0.32</td>
<td>0.21</td>
<td>0.42</td>
<td>72.82</td>
<td></td>
</tr>
</tbody>
</table>

Note. $k$ = number of observations; $r_s$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_s$; LL = lower limit; UL = upper limit; $I^2$ = Higgins and
Thompson’s (2002) index of heterogeneity; $Q = \text{Cochran’s (1952) } Q\text{ statistic.}$

Sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 23

Subgroup Analysis of the Moderating Effect of Self-Reported vs Observed Action on the Associations Between Predictors and Collective Action Behavior.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Self-reported vs. Observed Action</th>
<th>k</th>
<th>$r_+$</th>
<th>95% CI</th>
<th>$\hat{I}^2$ (%)</th>
<th>Q</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived grievance</td>
<td>Self-reported</td>
<td>70</td>
<td>0.22</td>
<td>0.19</td>
<td>0.24</td>
<td>96.80</td>
<td>.997</td>
</tr>
<tr>
<td></td>
<td>Observed</td>
<td>8</td>
<td>0.22</td>
<td>0.14</td>
<td>0.29</td>
<td>87.54</td>
<td></td>
</tr>
<tr>
<td>Emotion</td>
<td>Self-reported</td>
<td>60</td>
<td>0.21</td>
<td>0.18</td>
<td>0.25</td>
<td>83.49</td>
<td>.080</td>
</tr>
<tr>
<td></td>
<td>Observed</td>
<td>19</td>
<td>0.14</td>
<td>0.07</td>
<td>0.21</td>
<td>82.38</td>
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</tr>
<tr>
<td>Group identification</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self-reported</td>
<td>114</td>
<td>0.31</td>
<td>0.28</td>
<td>0.34</td>
<td>94.57</td>
<td>.195</td>
</tr>
<tr>
<td></td>
<td>Observed</td>
<td>16</td>
<td>0.24</td>
<td>0.14</td>
<td>0.34</td>
<td>74.77</td>
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</tr>
<tr>
<td>Efficacy beliefs</td>
<td>Self-reported</td>
<td>136</td>
<td>0.25</td>
<td>0.21</td>
<td>0.29</td>
<td>98.48</td>
<td>.636</td>
</tr>
<tr>
<td></td>
<td>Observed</td>
<td>19</td>
<td>0.28</td>
<td>0.17</td>
<td>0.39</td>
<td>79.40</td>
<td></td>
</tr>
<tr>
<td>Moral motives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention (all studies)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self-reported</td>
<td>23</td>
<td>0.74</td>
<td>0.66</td>
<td>0.80</td>
<td>99.03</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>Observed</td>
<td>10</td>
<td>0.46</td>
<td>0.24</td>
<td>0.63</td>
<td>83.88</td>
<td></td>
</tr>
<tr>
<td>Intention (sensitivity adjusted)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self-reported</td>
<td>13</td>
<td>0.534</td>
<td>0.429</td>
<td>0.625</td>
<td>94.53</td>
<td>.333</td>
</tr>
<tr>
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<td>Observed</td>
<td>10</td>
<td>0.458</td>
<td>0.328</td>
<td>0.570</td>
<td>83.88</td>
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</tr>
<tr>
<td>Past behavior</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Note. $k$ = number of observations; $r_+$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_+$; LL = lower limit; UL = upper limit; $\hat{I}^2$ = Higgins and Thompson’s (2002) index of heterogeneity; $Q$ = Cochran’s (1952) Q statistic. Dash [-] indicates analysis not run due to insufficient number of studies. Sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 24

**Subgroup Analysis of the Moderating Effect of Study Design on the Associations Between Predictors and Collective Action.**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Study Design</th>
<th>$k$</th>
<th>$r_*$</th>
<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>Q</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LL</td>
<td>UL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived grievance</td>
<td>Correlational</td>
<td>166</td>
<td>.25</td>
<td>.23</td>
<td>.27</td>
<td>97.13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>61</td>
<td>.25</td>
<td>.21</td>
<td>.29</td>
<td>90.11</td>
<td></td>
</tr>
<tr>
<td>Emotion</td>
<td>Correlational</td>
<td>185</td>
<td>.33</td>
<td>.29</td>
<td>.36</td>
<td>96.30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>88</td>
<td>.34</td>
<td>.29</td>
<td>.39</td>
<td>89.97</td>
<td></td>
</tr>
<tr>
<td>Group identification</td>
<td>Correlational</td>
<td>246</td>
<td>.35</td>
<td>.32</td>
<td>.38</td>
<td>96.14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>61</td>
<td>.36</td>
<td>.30</td>
<td>.42</td>
<td>91.03</td>
<td></td>
</tr>
<tr>
<td>Efficacy beliefs</td>
<td>Correlational</td>
<td>260</td>
<td>.34</td>
<td>.31</td>
<td>.37</td>
<td>98.68</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>73</td>
<td>.41</td>
<td>.35</td>
<td>.46</td>
<td>89.36</td>
<td></td>
</tr>
<tr>
<td>Moral motives</td>
<td>Correlational</td>
<td>33</td>
<td>.42</td>
<td>.36</td>
<td>.47</td>
<td>93.13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>7</td>
<td>.39</td>
<td>.25</td>
<td>.52</td>
<td>77.76</td>
<td></td>
</tr>
<tr>
<td>Intention (all studies)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Intention (sensitivity adjusted)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Past behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

Note. $k =$ number of observations; $r_*$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_*$; LL = lower limit; UL = upper limit; $I^2 =$ Higgins and Thompson’s (2002) index of heterogeneity; Q = Cochran’s (1952) Q statistic. Dash [-] indicates analysis not run due to insufficient number of studies. Sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 25

Subgroup Analysis of the Moderating Effect of Study Interval on the Associations Between Predictors and Collective Action.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Study Interval</th>
<th>$k$</th>
<th>$r_+$</th>
<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>Q</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived grievance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cross-sectional</td>
<td>213</td>
<td>.26</td>
<td>.24 - .28</td>
<td>96.56</td>
<td>12.20</td>
<td>&lt; .001</td>
</tr>
<tr>
<td></td>
<td>Longitudinal</td>
<td>14</td>
<td>.13</td>
<td>.06 - .20</td>
<td>94.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotion</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>1.41</td>
<td>.235</td>
</tr>
<tr>
<td></td>
<td>Cross-sectional</td>
<td>257</td>
<td>.34</td>
<td>.31 - .36</td>
<td>95.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Longitudinal</td>
<td>16</td>
<td>.27</td>
<td>.15 - .37</td>
<td>93.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group identification</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.49</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>Cross-sectional</td>
<td>279</td>
<td>.36</td>
<td>.34 - .39</td>
<td>95.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Longitudinal</td>
<td>28</td>
<td>.23</td>
<td>.14 - .31</td>
<td>91.83</td>
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</tr>
<tr>
<td>Efficacy beliefs</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>1.61</td>
<td>.205</td>
</tr>
<tr>
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<td>Cross-sectional</td>
<td>302</td>
<td>.36</td>
<td>.33 - .39</td>
<td>98.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Longitudinal</td>
<td>31</td>
<td>.30</td>
<td>.20 - .39</td>
<td>89.55</td>
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</tr>
<tr>
<td>Moral motives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Intention (all studies)</td>
<td></td>
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<td></td>
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<td>6.05</td>
<td>.014</td>
</tr>
<tr>
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<td>Cross-sectional</td>
<td>13</td>
<td>.56</td>
<td>.41 - .67</td>
<td>93.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Longitudinal</td>
<td>20</td>
<td>.73</td>
<td>.65 - .79</td>
<td>98.75</td>
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<td></td>
</tr>
<tr>
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<td>.249</td>
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<td>.54</td>
<td>.44 - .63</td>
<td>92.38</td>
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</tr>
<tr>
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<td>Longitudinal</td>
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<td>.45</td>
<td>.32 - .56</td>
<td>92.35</td>
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<td></td>
</tr>
<tr>
<td>Past behavior</td>
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<td></td>
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<td>1.06</td>
<td>.302</td>
</tr>
<tr>
<td></td>
<td>Cross-sectional</td>
<td>25</td>
<td>.46</td>
<td>.40 - .53</td>
<td>92.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Longitudinal</td>
<td>8</td>
<td>.39</td>
<td>.26 - .51</td>
<td>81.63</td>
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<td></td>
</tr>
</tbody>
</table>

Note. $k =$ number of observations; $r_+$ = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of $r_+$; LL = lower limit; UL = upper limit; $I^2 =$ Higgins and Thompson's (2002) index of heterogeneity; Q = Cochran's (1952) Q statistic. Dash [-] indicates analysis not run due to insufficient number of studies. Sensitivity-adjusted = Granberg & Holmberg (1990) samples removed.
Table 26

*Meta-Regression of the Moderating Effect of Age on the Associations Between Predictors and Collective Action.*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$k$</th>
<th>$B$</th>
<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>$Z$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived grievance</td>
<td>205</td>
<td>-0.01</td>
<td>-0.01</td>
<td>0.00</td>
<td>95.47</td>
<td>-2.20</td>
</tr>
<tr>
<td>Emotion</td>
<td>234</td>
<td>0.00</td>
<td>-0.01</td>
<td>0.00</td>
<td>93.52</td>
<td>-0.02</td>
</tr>
<tr>
<td>Group identification</td>
<td>267</td>
<td>-0.01</td>
<td>-0.01</td>
<td>0.00</td>
<td>95.90</td>
<td>-0.28</td>
</tr>
<tr>
<td>Efficacy beliefs</td>
<td>276</td>
<td>-0.01</td>
<td>-0.01</td>
<td>0.00</td>
<td>93.15</td>
<td>-2.96</td>
</tr>
<tr>
<td>Moral motives</td>
<td>37</td>
<td>-0.01</td>
<td>-0.01</td>
<td>0.00</td>
<td>90.49</td>
<td>-2.03</td>
</tr>
<tr>
<td>Intention</td>
<td>18</td>
<td>0.00</td>
<td>-0.02</td>
<td>0.01</td>
<td>92.64</td>
<td>-0.56</td>
</tr>
<tr>
<td>Past behavior</td>
<td>26</td>
<td>0.00</td>
<td>-0.01</td>
<td>0.01</td>
<td>90.45</td>
<td>-0.65</td>
</tr>
</tbody>
</table>

*Note.* $k =$ number of observations; $B =$ regression coefficient; 95% CI = confidence intervals of $B$; LL = lower limit; UL = upper limit; $I^2 =$ Higgins and Thompson’s (2002) index of heterogeneity; $Z =$ z-test of significance.
### Table 27

Meta-Regression of the Moderating Effect of Gender (% Female) on the Associations Between Predictors and Collective Action.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>k</th>
<th>B</th>
<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>Z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>LL</td>
<td>UL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived grievance</td>
<td>208</td>
<td>0.05</td>
<td>-0.11</td>
<td>0.21</td>
<td>96.42</td>
<td>0.63</td>
</tr>
<tr>
<td>Emotion</td>
<td>234</td>
<td>-0.10</td>
<td>-0.26</td>
<td>0.07</td>
<td>94.21</td>
<td>-1.15</td>
</tr>
<tr>
<td>Group identification</td>
<td>267</td>
<td>-0.02</td>
<td>-0.17</td>
<td>0.12</td>
<td>95.98</td>
<td>-0.32</td>
</tr>
<tr>
<td>Efficacy beliefs</td>
<td>276</td>
<td>-0.08</td>
<td>-0.20</td>
<td>0.04</td>
<td>93.61</td>
<td>-1.32</td>
</tr>
<tr>
<td>Moral motives</td>
<td>37</td>
<td>-0.13</td>
<td>-0.41</td>
<td>0.16</td>
<td>92.48</td>
<td>-0.87</td>
</tr>
<tr>
<td>Intention</td>
<td>18</td>
<td>-0.12</td>
<td>-0.67</td>
<td>0.43</td>
<td>92.58</td>
<td>-0.43</td>
</tr>
<tr>
<td>Past behavior</td>
<td>26</td>
<td>-0.07</td>
<td>-0.36</td>
<td>0.22</td>
<td>90.92</td>
<td>-0.49</td>
</tr>
</tbody>
</table>

*Note. k = number of observations; B = regression coefficient; 95% CI = confidence intervals of B; LL = lower limit; UL = upper limit; $I^2$ = Higgins and Thompson’s (2002) index of heterogeneity; Z = z-test of significance.*
Table 28

Subgroup Analysis of the Moderating Effect of Type of Sample on the Associations Between Predictors and Collective Action.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Type of Sample</th>
<th>k</th>
<th>$r_s$</th>
<th>95% CI</th>
<th>$I^2$ (%)</th>
<th>Q</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived grievance</td>
<td>Student</td>
<td>82</td>
<td>.24</td>
<td>.21 - .26</td>
<td>90.52</td>
<td>6.20</td>
<td>.045</td>
</tr>
<tr>
<td></td>
<td>Non-student</td>
<td>138</td>
<td>.25</td>
<td>.23 - .27</td>
<td>97.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mixed</td>
<td>7</td>
<td>.35</td>
<td>.27 - .44</td>
<td>90.27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotion</td>
<td>Student</td>
<td>113</td>
<td>.30</td>
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<td>Type of Sample</td>
<td>k</td>
<td>( r_a )</td>
<td>95% CI</td>
<td>( I^2 ) (%)</td>
<td>Q</td>
<td>p</td>
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Note. \( k \) = number of observations; \( r_a \) = correlation coefficient representing the mean effect size; 95% CI = confidence intervals of \( r_a \); LL = lower limit; UL = upper limit; \( I^2 \) = Higgins and Thompson's (2002) index of heterogeneity; \( Q \) = Cochran's (1952) \( Q \) statistic; dash [-] indicates analysis not run due to insufficient number of studies; sensitivity adjusted = Granberg & Holmberg (1990) samples removed.
Figure 1

Flow of Studies for Meta-analysis

- Citations identified through database searching:
  - Scopus: N = 3,412
  - Web of Science: N = 4,770
  - PsycINFO: N = 2,288
  - TOTAL: N = 10,410

- Additional citations identified through other sources:
  - Backward citations (van Zomeren, Postmes, & Spears, 2008): N = 213
  - Forward citations:
    - Scopus: N = 507
    - Web of Science: N = 441
    - PsycINFO: N = 79
  - TOTAL: N = 1,240

- Citations after duplicates removed: N = 7,979

- Titles & abstracts screened: N = 7,979

- Citations excluded: N = 6,952

- Full-text articles excluded: N = 419
  - Not an empirical paper: N = 55
  - Not a quantitative design: 23
  - Not on collective action: 244
  - Not at individual level: 16
  - No measure of CA: 60
  - Published as other record: 21

- Papers eligible for meta-analyses: N = 608

- Additional papers from search update: N = 88

- Papers included in meta-analyses: N = 696 papers, k = 1,319 tests
Figure 2

Proposed Integrative Model for Collective Action Intention and Behavior
Chapter 3

Predicting Collective Action by Allies in the Workplace:

Integrating Perspectives From Social Cognition Models of Behaviour
Abstract

Research on the predictors of collective action by advantaged group members on behalf of disadvantaged groups (i.e., ‘allyship’) has rarely integrated social cognition models of behaviour and has seldom examined behaviours in workplace contexts. We sought to predict action by allies in the workplace, using variables drawn from models of collective action and the theory of reasoned action. Members of a workplace allies programme for lesbian, gay, bisexual, and transgender (LGBT) inclusion ($N = 261$) completed questionnaires assessing predictors of ally action and their behavioural intention, willingness, and expectation to participate in voluntary training for LGBT inclusion. Results indicated that ally intention, willingness, and expectation were consistently predicted by two factors from models of collective action: anger at anti-LGBT discrimination and moral obligation. Ally intention and willingness, but not expectation, were also predicted by perceived group disadvantage. In line with the theory of reasoned action, attitude and subjective norm predicted ally intention, willingness, and expectation, over and above anger and moral obligation. The findings support the value of integrating perspectives from social cognition models of behaviour to the study of collective action by allies.

Keywords:

collective action, allies, allyship, theory of reasoned action, diversity training
Collective action refers to any individual’s behaviour that aims to advance the interests, status, or power of a particular social group (Becker, 2012; van Zomeren, 2013, 2015; Wright, 2009; Wright et al., 1990). Such actions can be taken by members of a disadvantaged group to improve the conditions of their ingroup (e.g., gay men fighting for gay rights; Stürmer & Simon, 2004) or by members of an advantaged group to benefit a disadvantaged outgroup (e.g., heterosexuals supporting gay marriage; Becker et al., 2013). Regardless of the group engaged in it, collective action is one important path to positive social change (Bosi et al., 2016; Chenoweth & Stephan, 2011). Consequently a major aim of social psychological research in this field is to identify the key variables that predict collective action (van Zomeren & Iyer, 2009).

**Predictors of Collective Action**

Interest in predicting collective action has led to the development of conceptual models that aim to identify factors that mobilise people to action. These include the social identity model of collective action (SIMCA; van Zomeren et al., 2008, 2018), the integrative model of protest motivation (van Stekelenburg & Klandermans, 2013, 2017), and the axiological-identitary collective action model (AICAM; Sabucedo et al., 2018, 2019). A common thread across these models is the proposition that collective action is best predicted by four factors: injustice, identity, efficacy, and morality (van Zomeren, 2013, 2015).

Evidence from meta-analytic research has shown that collective action by disadvantaged groups (van Zomeren et al., 2008) as well as collective action by advantaged groups (chapter 2) are indeed associated with those factors. The first core predictor is injustice. People are more likely to take action when they perceive their group to be facing unjust disadvantage relative to another group (Smith et al., 2012). This effect is stronger when the perception of injustice is not experienced as a cognitive appraisal but as a felt
emotion (so-called ‘affective injustice’; van Zomeren et al., 2008) in the form of anger (Livingstone et al., 2009; van Troost et al., 2013).

Advantaged group members likewise can mobilise by anger; however, other emotions such as guilt (e.g., Mallett et al., 2008) and sympathy (e.g., Iyer & Ryan, 2009) have also been found to predict action by advantaged group members on behalf of the disadvantaged. As an ingroup-focused emotion, guilt stems from the appraisal that one’s group has done harm to another group or that one’s group is illegitimately advantaged relative to another. Guilt is thus argued to mobilise advantaged group members to undo this harm via collective action (Lickel et al., 2007). Other studies (Iyer et al., 2007; Leach et al., 2006) however show that guilt is not a particularly good independent predictor of collective action. Compared to anger, guilt is marked by lower levels of subjectively felt physiological arousal and may be more associated with supporting abstract goals of compensation rather than specific action (Leach et al., 2006). In contrast, sympathy represents a prosocial emotion focused primarily on the outgroup and their misfortune, and has been shown to mobilise ally action, for example, men supporting more equitable workplaces for women (Iyer & Ryan, 2009). Sympathy may thus be an important predictor of ally action, particularly action to relieve suffering and improve the conditions of the disadvantaged (Harth et al., 2008).

The second core predictor of collective action is identity, i.e., identification with a group. Disadvantaged group members who identify more strongly with their ingroup are more likely to take action to challenge the status quo, according to social identity theory (Tajfel & Turner, 1979) and empirical research (van Zomeren et al., 2008). Less attention has been paid to advantaged group members’ identification with a disadvantaged outgroup and its link to ally action, though recent studies of men as allies to women are illustrative. Subašić et al. (2018), for example, showed that Australian men who identified with women affected by the gender wage gap expressed greater willingness to take action on gender inequality. Likewise, Ochoa et al. (2019) found that among Japanese and Filipino men, identification with women was correlated with willingness to take action against
discrimination targeting women. As posited by the political solidarity model of social change (Subašić et al., 2008), advantaged group members may take action to challenge the status quo with the emergence of a higher order identity orientated toward social justice. Support for this idea can be found in a study by Jones and Brewster (2017), who found that non-LGBT (lesbian, gay, bisexual, and transgender) people who identified more strongly as an ally were more likely to engage in pro-LGBT action, even after controlling for individual differences in empathy. It is currently unknown, however, whether identification with the disadvantaged group or direct identification as an ally to that group is a better predictor of ally action.

The third core predictor of collective action is efficacy, referring to a person’s beliefs about their ability to take action and achieve desired outcomes (Bandura, 2000; van Zomeren et al., 2008). Studies have placed primacy on group efficacy, the belief that the group is capable of achieving desired outcomes when working together, as a predictor of collective action among disadvantaged groups (Alberici & Milesi, 2016; Shi et al., 2015). The association between group efficacy and action has also been shown for advantaged groups acting on behalf of the disadvantaged, for example, men’s willingness to take action against wage gaps that disadvantage women (Stewart, 2017). Other studies have also examined individual efficacy to predict action by disadvantaged groups (e.g., van Zomeren et al., 2013) and by allies (e.g., Jones & Brewster, 2017). In contrast to group efficacy, individual efficacy refers to a person’s belief about their own individual capabilities to take action and attain desired outcomes (Bandura, 1997). In the case of collective action, this is belief that one can engage, as an individual, in behaviours aimed at creating social change. Individual efficacy, like group efficacy, should predict ally action. To our knowledge, however, there are no studies of ally action that have measured both group and individual efficacy in the same sample, thus the comparative predictive ability of group versus individual efficacy is currently unknown.

Finally, the fourth core predictor of collective action is morality (Skitka, 2010; Skitka & Morgan, 2014). Individuals with strong moral conviction (the deeply held belief that their
opinion on a particular issue is grounded in notions of right and wrong; Skitka & Morgan, 2014) are more likely to mobilise against ingroup disadvantage, compared to those who do not perceive their group situation in moral terms. Moral conviction has also been argued to underpin allyship (Radke et al., 2020), a proposition supported by a handful of studies (e.g., Russell, 2011; Simon et al., 2000; van Zomeren et al., 2011). Apart from moral conviction, some studies have also shown that moral obligation (the belief that participating in a specific act is ‘the right thing to do’; Sabucedo et al., 2018, 2019) predicts collective action, at least by disadvantaged groups. According to the axiological-identitary collective action model (AICAM; Sabucedo et al., 2018, 2019), moral obligation should predict collective action regardless of membership in disadvantaged or advantaged groups, because moral obligation implies a sense of duty that connects personally held abstract principles to a specific imperative to take action. Empirical research has indeed shown that both moral conviction and moral obligation predict collective action in the same samples of disadvantaged groups (Sabucedo et al., 2018); however, this remains an open question for advantaged groups acting on behalf of the disadvantaged.

Therefore, building on these primary studies, as well as the results of the meta-analyses presented in Chapter 2, we test perceived group disadvantage, emotion, identification, efficacy, and moral motives as multiple predictors of collective action, in a multiple regression model.

**Integrating Perspectives from Social Cognition Models of Behaviour**

A limitation of current predictive models of collective action, whether by disadvantaged groups or by allies, is that they seldom take into account the rich body of research and theory on behavioural prediction and behaviour change (e.g., Fishbein & Ajzen, 2010; Gollwitzer, 2012; Michie et al., 2011; Sheeran, 2002; Sheeran & Webb, 2016). Though social cognition models of behaviour developed primarily in the domain of health psychology, this body of work offers insights that can be tested in the collective action domain. In particular, the theory of reasoned action (TRA; Fishbein & Ajzen, 2010) offers a number of propositions to predict collective action, including action by allies. According to the
TRA, behavior is predicted by three variables: attitude (a person’s disposition to respond favourably or unfavourably to the prospect of performing an action; Eagly & Chaiken, 1993), subjective norm (a person’s perception that valued others want him or her to perform an action; Ajzen, 1991), and intention (a person’s self-instructions to take some deliberate course of action; Triandis, 1980). Of these three, intention is considered to be the most important proximal determinant of behaviour (Armitage & Conner, 2001; Fishbein & Ajzen, 2010; McEachan et al., 2016). Indeed, most studies on collective action rely on intended action as a proxy for actual collective action behavior (Louis et al., 2016).

A small number of studies have successfully integrated variables from the theory of reasoned action to predict collective action by disadvantaged groups. In a study of feminist activism among British women, Kelly and Breinlinger (1995) demonstrated that attitude and subjective norm predicted intention to take action, regardless of women’s level of ingroup identification. In another study, Louis (2001) showed that while ingroup identification predicted intention to rally among minority Anglophones in Quebec, this effect became non-significant once attitude and subjective norm were entered into the regression model. Finally, in a study of Dutch citizens facing environmental threats, Brunsting and Postmes (2002) showed that attitude and subjective norm predicted intention to take online action, over and above predictors such as perceived injustice and group identification. Results from these studies thus point to the utility of incorporating variables from social cognition models of behaviour, specifically the TRA, in predicting intention to take action among disadvantaged groups. It is unknown, however, how these TRA variables might improve the prediction of ally action specifically, over and above core predictors from the collective action literature. We therefore attempt to shed light on these questions by integrating TRA variables in predicting ally action in one specific everyday context: the workplace.

**Collective Action by Allies in the Workplace**

Previous work on collective action has focused primarily on participating in protests, public demonstrations, and marches (Tarrow, 2011; Tilly & Tarrow, 2015). These contentious behaviors are perhaps the most visible and frequent forms of collective action all over the
world (Carothers & Youngs, 2015). Consequently, less attention has been paid to actions in everyday, institutionalised contexts such as the workplace. Organisational settings, however, offer an interesting, real-world context to test hypotheses concerning collective action. One important line of research has focused on collective action for workers’ rights in the context of union participation (Barling et al., 1992; Monnot et al., 2010). Beyond union participation, the other major focus of research on collective action in the workplace is the problem of employment discrimination and inequality experienced by particular groups (Lindsey et al., 2013). One such example is the discrimination and inequality faced by LGBT employees (Martinez et al., 2017; Ng & Rumens, 2017; Sabat et al., 2014).

Despite increased visibility and advances in legal rights, experiences of workplace discrimination, harassment, and exclusion continue to exist for LGBT people (Anteby & Anderson, 2014; Ozeren, 2014; Steffens et al., 2016). Research in Great Britain, for example, indicates that 18% of LGBT employees have been the target of anti-LGBT conduct and harassment by coworkers (Bachman & Gooch, 2018). Gay men, especially partnered men, earn less than heterosexual counterparts (Aksoy et al., 2018; Arabsheibani et al., 2004, 2005). Transgender people, in particular, have been found to experience disproportionately higher rates of workplace violence, harassment, and discrimination (Hudson-Sharp & Metcalf, 2016).

To address these inequalities, organisations may institute particular interventions, such as policies barring discrimination based on sexual orientation or gender identity, formation of LGBT staff groups, and development of allies programmes to promote inclusion (Button, 2001; Webster et al., 2018). Allies programmes are of particular interest because they represent an institutional approach to allyship (Sabat et al., 2013; Salter & Migliaccio, 2019), based on the idea that advantaged group members (i.e., non-LGBT employees) can be mobilised to take action on behalf of the disadvantaged group (i.e., LGBT employees). Such action can take a number of forms, including advocating for nondiscrimination policies, confronting discriminatory speech and behaviour by coworkers, and displaying allyship symbols in personal workspaces (Sabat et al., 2014).
In this study, we add to the literature on ally action by examining a specific behavioural component of a workplace allies programme: voluntary participation in diversity training designed to develop knowledge, skills, and attitudes related to being an effective supporter of inclusion (Ashworth, 2014; Brooks & Edwards, 2009). Participating in such diversity training, we argue, reflects a form of ally action, as this volitional behaviour aims to advance the status and interests of a particular disadvantaged outgroup (in this case, of LGBT people) in the context of an organisation. Though earlier researchers were cautious about the value of diversity training (e.g., Harding & Peel, 2007; Hite & McDonald, 2006), meta-analytic research on the outcomes of diversity training (Kalinoski et al., 2013) indicates that it has a small-to-medium effect on attitudes (including prejudice reduction) and medium-to-large effects on cognitive (e.g., knowledge about inequality) and behavioural (e.g., intention to support workplace equality) outcomes. This suggests that participation in diversity training is an important form of collective action in organisational settings.

Likewise, previous research supports the application of behaviour change models such as the theory of reasoned action in the prediction of intended and actual participation in voluntary training (Colquitt et al., 2000; Kyndt & Baert, 2013). For example, an earlier cross-sectional study by Becker and Gibson (1998) found that TRA variables attitude and subjective norm significantly predicted intention to engage in continuing professional training among US respiratory therapists. More recently, Diethert et al. (2015) demonstrated that the TRA predicted both intention and expectation to participate in voluntary leadership training in a sample of employees in a German university. Finally, in a longitudinal study of four US organisations, Hurtz and Williams (2009) found that attitude at time 1 strongly predicted training intention at time 1, which then predicted actual training at time 2, over and above employees’ general motivation to learn. Though none of these studies examined diversity training specifically, they point to the utility of applying TRA variables in the prediction of intended and actual participation in voluntary training in the workplace.

The Current Study
We contribute to the literature on predicting action by advantaged group members on behalf of the disadvantaged by building on previous research in three ways. First, we investigate a seldom-studied type of collective action in the real-world context of a workplace allies programme: participation in diversity training for allies (Ashworth, 2014; Kalinoski et al., 2013). In particular, we focus on intended and actual participation in voluntary diversity training designed for allies on LGBT inclusion in the workplace (Brooks & Edwards, 2009).

Second, we test an expanded range of predictors drawn from models of collective action, namely perceived group disadvantage, emotion, identification, efficacy, and moral motives. We explore the differential ability of these broad constructs versus their subtypes to predict intended and actual ally action. Specifically, we test the following comparisons of subtypes: (1) anger, guilt, and sympathy as emotions, (2) identification with the allies ingroup versus identification with the disadvantaged outgroup, (3) group efficacy versus individual efficacy, and (4) moral conviction versus moral obligation. We use hierarchical regression analysis to determine whether these different predictors explain any additional variance in intended and actual collective action by allies.

Finally, we integrate key predictors from the social cognition models of behaviour to determine how well they predict ally action over and above the predictors from the collective action literature. We build on previous work that integrates TRA variables in the prediction of collective action by disadvantaged groups. Specifically we examine: (1) attitude toward participating in allies training and (2) subjective norm around allies training. We hypothesise, following Kelly and Breinlinger (1995), Louis (2001), and Brunsting and Postmes (2002), that both attitude and subjective norm will predict intended and actual ally action, over and above the core predictors from the collective action literature. Furthermore, we employ conceptual distinctions made in social cognition models of behaviour and build on the meta-analysis in Chapter 2 by differentiating between three types of intentionality: *behavioural intention*, *willingness*, and *expectation* (Gibbons et al., 2015; Warshaw & Davis, 1985a, 1985b). Intention refers to a person’s self-instructions to take some deliberate course of action (Triandis, 1980) and is measured using straightforward items such as ‘I intend to sign a
petition’ (Thomas et al., 2019). Willingness, on the other hand, is the degree of openness to take action in response to opportunity (Gibbons et al., 2015) and is measured using items that ask participants to rate how willing they would be to perform an action (e.g., willingness to donate money to a political cause; Leach et al., 2007). Expectation, in contrast, refers to the self-prediction of taking action (Warshaw & Davis, 1985a, 1985b) and is measured by asking participants to rate the probability of them performing the behaviour (e.g., how likely they are to participate in a peaceful demonstration; Jasko et al., 2019, study 3). In the current study, we use intention, willingness, and expectation to participate in diversity training for allies as three forms of intended collective action. Finally, we attempt to predict actual collective action behaviour at a later time point. Specifically, we assess subsequent participation in an actual voluntary diversity training event designed for allies in the workplace.

**Method**

**Participants**

Participants were employees from a UK university who were members of a workplace allies programme for LGBT inclusion organised by the university’s LGBT staff network in collaboration with the office of human resources. Unlike traditional LGBT staff network groups whose membership is typically limited to LGBT employees (Colgan & McKearney, 2012), membership in this allies programme was open to all staff regardless of sexual orientation or gender identity and only required an interested employee to sign up online in order to join. Individualised invitations were sent via email to the entire validated list of 1,750 members. An incentive of entry into a prize draw for a £20 voucher was offered for participation. Of the 1,750 members of the allies programme, 353 (20%) completed the survey. Following the definition of allies as members of the advantaged group acting on behalf of the disadvantaged, only data from 261 self-identified non-LGBT participants were analysed. The final sample included 191 women and 70 men aged between 20 and 66 years ($M = 40.45, SD = 9.80$).

**Design and Procedure**
This correlative study was part of a larger project conducted in collaboration with the university’s LGBT staff network and office of human resources, with the goal of providing baseline data and needs assessment in support of a proposal to develop a diversity training programme for staff. The original design involved measuring predictors of ally action in a survey at Time 1 (perceived disadvantage, emotions, identification, efficacy, moral motives, attitude, and subjective norm, as well as demographic variables, training needs and preferences, and behavioural intention, willingness, and expectation to participate) and then objectively measuring behaviour at Time 2 (actual participation in the diversity training programme for staff allies). Participants were asked to generate a unique, anonymous code to allow for matching of responses at follow up. However, due to organisational administrative reasons, the expected allies training programme was not implemented, and thus the design was revised. In the current study we: (1) analysed cross-sectional data from the Time 1 survey to predict behavioural intention, willingness, and expectation from the other Time 1 variables, and (2) analysed data on actual participation in a different but related training event (on transgender issues in the workplace) offered by the office of human resources for staff allies at Time 2, eleven months after the Time 1 survey. The University Research Ethics Committee gave approval for the research, including the change in design at follow up.

Measures

Predictors

Perceived Group Disadvantage. The perception of group disadvantage experienced by LGBT people was measured using an item adapted from Leach et al. (2007): “Do you think LGBT people are advantaged, or disadvantaged, compared to non-LGBT people?” The response scale ranged from 1 (LGBT people advantaged) to 5 (Non-LGBT people advantaged).

Emotions. Emotional reactions to anti-LGBT discrimination were measured using items adapted from Iyer et al. (2003, 2007). Specifically, a hypothetical scenario of an LGBT staff member or student experiencing discrimination was presented: ‘When I think about an
LGBT staff member or student at our university experiencing discrimination or exclusion because of their gender or sexuality, I feel…’. Emotions included: anger (3 items: angry, outraged, furious; α = .92), guilt (3 items: guilty, remorseful, regretful; α = .78), and sympathy (3 items: sympathetic, compassionate, empathetic; α = .79). The response scale ranged from 1 (not at all) to 5 (very much).

**Group Identification.** Identification with two target groups was measured. Identification with the allies ingroup was measured using 4 items (α = .78) adapted from van Zomeren et al. (2011): ‘I identify with the allies programme’, ‘I feel strong ties with the allies programme’, ‘I see myself as part of the allies programme’, and ‘I am proud to be part of the allies programme’. Identification with the LGBT outgroup was measured with a 3-item solidarity scale (α = .74) adapted from Leach et al. (2008): ‘I feel a bond with LGBT people’, ‘I feel solidarity with LGBT people’, and ‘I feel committed to LGBT people’. The response scale for both measures ranged from 1 (strongly disagree) to 5 (strongly agree).

**Efficacy Beliefs.** Beliefs about group and individual efficacy were measured in two ways using scales adapted from van Zomeren et al. (2013). Group efficacy was assessed using two items: ‘I believe that members of the allies programme, as a group, can promote LGBT inclusion’ and ‘I believe that members of the allies programme, through joint actions, can promote LGBT inclusion’ (r = .70). Individual efficacy was assessed using two items: ‘I believe that I, as an individual, can provide an important contribution so that members of the allies programme as a group can promote LGBT inclusion’ and ‘I believe that I, as an individual, can provide a significant contribution so that through joint actions members of the allies programme can promote LGBT inclusion’ (r = .90). The response scale for both measures ranged from 1 (strongly disagree) to 5 (strongly agree).

**Moral Motives.** Moral motives were measured in two ways. Moral conviction for allyship was assessed using four items (α = .92) adapted from Skitka et al. (2017): ‘To what extent is your being an ally to LGBT people... connected to your beliefs about fundamental right and wrong / a reflection of your core moral beliefs and convictions / based on moral principles / a moral stance?’. The response scale ranged from 1 (not at all) to 5 (very much).
Moral obligation was assessed using five items ($\alpha = .80$) adapted from Sabucedo et al. (2018): ‘Supporting LGBT inclusion constitutes a moral obligation to oneself’, ‘Supporting LGBT+ inclusion would make me feel proud of myself’, ‘To not act against anti-LGBT+ discrimination would make me feel guilty’, ‘I feel morally obliged to do something against homophobia/transphobia even when that means confronting people who are close to me’, and ‘No matter what anyone thinks, I feel morally obliged to participate in actions that support LGBT people’. The response scale ranged from 1 (strongly disagree) to 5 (strongly agree).

**Attitude.** Following recommendations by Fishbein and Ajzen (2010), attitude toward participating in allies training was measured using a 5-point semantic differential ($\alpha = .86$) with five items: boring–fun, unenjoyable–enjoyable, unpleasant–pleasant, worthless–valuable, and useless–useful.

**Subjective Norm.** Subjective norm around participating in allies training was measured using three items ($\alpha = .82$) adapted from Hurtz and Williams (2009). Participants were asked how much they believed the following people would approve of them participating in allies training: their supervisor/line manager, coworkers whose opinions they value, and most people whose opinions they value. The response scale ranged from 1 (not at all) to 5 (very much).

**Control variables**

Three variables shown to predict voluntary participation in training were included as control variables: past participation in training (Hurtz & Williams, 2009), general motivation to learn from training (Morrell & Korsgaard, 2011), and perceived barriers to attending training (Tharenou, 2001). These were included as basic predictors to account for workplace training participation before examining the main predictors of interest in the study.

**Past Training Participation.** Members of the allies programme were asked how many times they had participated in previous online or in-person training on LGBT inclusion in the workplace, whether at the university or in a previous organisation. Responses ranged from zero up to four times.
**General Motivation to Learn from Training.** Individual differences in the general motivation to engage in and learn from workplace training was measured using the 3-item motivation to learn scale (Morrell & Korsgaard, 2011; $\alpha = .90$). Items were: ‘I am motivated to learn the skills emphasised in training programmes’, ‘I try to learn as much as I can from training’, and ‘I am willing to exert considerable effort in improving my skills through training’. The response scale ranged from 1 (*not at all*) to 5 (*very much*).

**Perceived Barriers.** Barriers to participation in allies training were measured using four items ($\alpha = .77$) adapted from Tharenou (2001). Participants were asked how much of a barrier they anticipated the following to be: no time available, family commitments, work pressures, and scheduling of work and training. The response scale ranged from 1 (*not at all*) to 5 (*very much*).

**Outcome Variables**

**Intention, Willingness, and Expectation.** Following recommendations by Fishbein and Ajzen (2010), we assessed intention, willingness, and expectation to participate in allies training using the following single-item measures. Intention was measured using the item: ‘How much do you intend to participate in a brief online allies training module in the next 12 months?’ (response scale: from 1 = *not at all intend to* to 5 = *strongly intend to*). Willingness was measured using the item ‘If the opportunity arises, how willing or not willing would you be to participate in a brief online allies training module in the next 12 months?’ (response scale: from 1 = *not at all willing* to 5 = *extremely willing*). Expectation was measured using the item: ‘All things considered, how likely or unlikely will you be participating in a brief online allies training module in the next 12 months?’ (response scale: from 1 = *not at all likely* to 5 = *extremely likely*).

**Participation in Training.** Because the proposed online allies training was not realised, we relied on an alternative behavioral measure of participation: taking part in a voluntary, in-person training session on general transgender awareness, rather than LGBT inclusion in the workplace. This event, organised by the LGBT staff network and the office of human resources, was conducted 11 months after baseline. Participants in this training
event were asked to generate the same unique, anonymous code from baseline to permit matching.

Results

Means, standard deviations, and zero-order correlations are presented in Table 1. Evidence for discriminant validity between intention, willingness, and expectation is provided by a repeated-measures ANOVA indicating that these three variables differed significantly, $F(2, 516) = 148.15, p < .001$. Post-hoc pairwise comparisons using a Bonferroni correction indicated that intention, willingness, and expectation were all different from each other (all $p$'s < .001).

To determine whether intention, willingness, and expectation to participate in allies training could be accounted for by constructs from the literature on collective action and from social cognition models of behaviour over and above standard variables that predict workplace training, we conducted three hierarchical regressions.

Predicting Intention

Intention to engage in allies training was regressed on the predictors, which were entered in three steps. Table 2 displays the results of this hierarchical regression analysis.

General variables that predict workplace training participation (past training, motivation to learn, and perceived barriers) were entered in the first step, which explained 31% of the variance. Variables from models of collective action were entered in the second step, which accounted for an additional 13% of the variance. Finally, variables from the theory of reasoned action were entered in the last step, which accounted for an additional 5% of the variance. Overall, the regression equation was significant, $F(15, 252) = 15.12, p < .001$, and explained 49% of the variance in intention.

Examination of regression coefficients in the last step of the analysis indicated that two general workplace training participation variables — motivation to learn and perceived barriers — predicted intention to engage in allies training. Among the predictors from the literature on collective action, three predictors — perceived group disadvantage, anger, and moral obligation — significantly predicted intention to engage in allies training. Finally, both
TRA variables (attitude toward engaging in allies training and subjective norm around allies training participation) significantly predicted intention to engage in allies training, over and above the predictors from the literature on collective action.

**Predicting Willingness**

Willingness to engage in allies training was regressed on the predictors entered in the same steps as above. Table 3 displays the results of this hierarchical regression analysis.

General variables that predict workplace training participation (past training, motivation to learn, and perceived barriers) were again entered in the first step, which explained 25% of the variance. Variables from models of collective action were entered in the second step, which accounted for an additional 16% of the variance. Finally, variables from the theory of reasoned action were entered in the last step, which accounted for an additional 7% of the variance. Overall, the regression equation was significant, $F(15, 252) = 14.80, p < .001$, and explained 48% of the variance in willingness.

Examination of regression coefficients in the last step of the analysis indicated that two general workplace training participation variables — motivation to learn and perceived barriers — predicted willingness to engage in allies training. Among the predictors from the literature on collective action, three predictors — perceived group disadvantage, anger at anti-LGBT discrimination, and moral obligation — significantly predicted willingness to engage in allies training. Finally, both TRA variables (attitude toward engaging in allies training and subjective norm around allies training participation) significantly predicted willingness to engage in allies training.

**Predicting Expectation**

Expectation to engage in allies training was regressed on the predictors entered in the same steps as above. Table 4 displays the results of this hierarchical regression analysis.

Standard variables that predict workplace training participation (past training, motivation to learn, and perceived barriers) were again entered in the first step, which
explained 33% of the variance. Variables from models of collective action were entered in the second step, which accounted for an additional 11% of the variance. Finally, two variables from the theory of reasoned action were entered in the last step, which accounted for an additional 7% of the variance. Overall, the regression equation was significant, $F(15, 254) = 16.81, p < .001$, and explained 51% of the variance in expectation.

Examination of regression coefficients in the last step of the analysis indicated that the three general workplace training participation variables — motivation to learn, perceived barriers, and past training — predicted expectation to engage in allies training. Among the predictors from the literature on collective action, three predictors significantly predicted expectation to engage in allies training. These were anger at anti-LGBT discrimination, moral obligation, and moral conviction. Moral conviction showed a negative beta weight (see Table 4) in the regression analysis, however this was likely due to a suppressor effect, as the zero-order correlation (see Table 1) was positive as expected.

Finally, both TRA variables (attitude toward engaging in allies training and subjective norm around allies training participation) significantly predicted higher expectation to engage in allies training.

**Behaviour**

Fifteen of the 261 participants (6% of baseline) participated in the transgender awareness training event at follow up. This low number of events in the outcome variable did not meet the minimum criteria for logistic regression analysis (i.e., minimum of 10 outcome events per predictor variable; Ottenbacher et al., 2004; Peduzzi et al., 1996). Examination of zero-order correlations (Table 1) further indicated that this behaviour measure did not correlate with any of the predictor variables.

**Discussion**

This study aimed to predict intended and actual collective action by advantaged group members on behalf of a disadvantaged group within the real-world context of a workplace allies programme. We tested an expanded range of variables drawn from models of collective action, including perceived group disadvantage, emotions (anger, guilt, and
sympathy), group identification (with the allies ingroup, with the disadvantaged outgroup), efficacy beliefs (group efficacy, individual efficacy) and moral motives (moral conviction, moral obligation). We then assessed two variables from the theory of reasoned action (attitude and subjective norm) to determine how well they predict ally action over and above predictors from the collective action literature.

Hierarchical regression analyses indicated that ally intention, willingness, and expectation were consistently predicted by only two factors from models of collective action: anger at anti-LGBT discrimination and moral obligation to take action. The first finding can be accounted for by theory on the role of anger in collective action (Thomas et al., 2009; van Stekelenburg & Klandermans, 2017; van Troost et al., 2013). Integrative models that have included a specific emotion pathway, such as the dual pathway model of collective action (van Zomeren et al., 2004, 2012), the encapsulation model of social identity in collective action (EMSICA; Thomas et al., 2009, 2011), and the integrative model of protest motivation (van Stekelenburg & Klandermans, 2013, 2017), all specify anger as the dominant emotion that mobilises people to action. Anger, especially anger at group disadvantage or a system of inequality (also called moral outrage; Thomas et al., 2009), allows members of the advantaged ingroup to focus on the agent responsible for injustice and on re-establishing justice via collective action (Montada & Schneider, 1989). This is in contrast to sympathy, which focuses attention on the aggrieved outgroup and thus may be more likely to predict benevolent acts such as direct helping rather than collective action (Harth et al., 2008).

Anger is also distinct from the self-conscious emotion of guilt, which focuses attention on the ingroup advantage and away from holding an agent responsible (Lickel et al., 2007). Indeed, previous studies (Iyer et al., 2007; Leach et al., 2006) have demonstrated that guilt is not a significant predictor of action by advantaged groups when included alongside anger. The results of the current study support the view that anger, rather than guilt, is an important predictor of ally action.

The second finding, that moral obligation predicts ally intention, willingness, and expectation, is in line with the axiological-identitary collective action model (AICAM;
Sabucedo et al., 2018, 2019). This model argues that moral obligation predicts collective action better than moral conviction because the former is specific and action-focused, while the latter is broad and issue-focused. Moral obligation thus contains a sense of duty that immediately links an issue to actions orientated toward that issue, unlike moral conviction which does not necessarily implicate any behaviour. Because the perceived duty to act is framed in terms of moral terms, moral obligation may motivate action for others with whom a person may not share anything in common, including action on behalf of a disadvantaged outgroup (Radke et al., 2020).

Apart from anger and moral obligation, perceived group disadvantage also predicted ally intention and willingness, but unexpectedly not expectation. Expectation refers to a person’s judgment about their likelihood of performing an action, regardless of their level of commitment (Armitage et al., 2015; Warshaw & Davis, 1985b). It may be that the perception of group disadvantage generates commitment, and therefore intention and willingness, toward taking action, while expectation is relatively unaffected. As we had no prior reason to expect that perceived group disadvantage would predict intention and willingness but not expectation, future studies should seek to replicate this finding and systematically investigate different antecedents of ally intention, willingness, and expectation, to shed more light on this matter.

Similarly, contrary to what was expected based on theoretical models of collective action, factors such as identification with the allies group, identification with LGBT people, group efficacy, individual efficacy, and moral conviction did not uniquely predict ally intention, willingness, or expectation. Examination of the zero-order correlations between these predictors and ally intention, willingness, and expectation indicated that they were positively correlated, as expected from theory and previous research. However, when entered along with general variables that predict training participation as well as variables from the theory of reasoned action, the aforementioned predictors did not account for any unique variance in ally intention, willingness, or expectation. We speculate that this may be, in part, due to the nature of membership in the allies programme studied; apart from signing up and receiving a
welcome packet, there were no opportunities for allies programme members to meet and interact with one another and develop group cohesion. This may make identification with the allies programme different from the politicised identification investigated in previous research on allies. Furthermore, some of the null findings may also be attributable to the specific form of collective action investigated in this study. Unlike other forms of collective action such as participating in protest or signing a petition, engaging in voluntary allies training is a very specific action situated within the narrow context of the workplace. Training participation, by its very nature, contributes to the development of individual employees in terms of added knowledge, skills, and competencies (Kraiger & Culbertson, 2013; Kraiger et al., 2015). Participating in training, even allies training, may be perceived as firstly a work behaviour and only secondly as a form of collective action on behalf of a disadvantaged group. Indeed, in our three regression models, most of the variance in intended action (whether intention, willingness, or expectation) was accounted for by work-orientated variables such as motivation to learn from training and perceived barriers to training participation. These two variables, however, are not necessarily unique to the workplace but reflect more general concepts that may be applied across domains. Consistent inclusion of variables like overall motivation and perceived barriers will be important in future work on predictors of ally action. Likewise, though we followed conceptual distinctions between three types of intentionality made in social cognition models of behaviour (Gibbons et al., 2015; Warshaw & Davis, 1985a, 1985b) and examined in the meta-analysis in Chapter 2, we found strong correlations between intention, willingness, and expectation. Despite significant differences in these three variables using analysis of variance and post hoc pairwise comparison procedures, we observed similar patterns of regression results for these three outcomes. It might be possible that the fine distinctions between these variables would only be relevant for specific forms of collective action, such as group behaviours that entail high levels of risk, for example, participating in violent protests. This possibility is suggested by theory and research that indicate that willingness is most relevant when considering behaviours that are reactions to risk-conducive situations and are typically performed with others (Gibbons et al., 2015).
Future research should examine this line of reasoning by investigating willingness versus intention versus expectation to engage in high versus low-risk collective action behaviours.

Finally, in line with the theory of reasoned action (Fishbein & Ajzen, 2010), both attitude toward engaging in allies training and subjective norm around engaging in allies training predicted intention, willingness, and expectation, over and above anger, moral obligation, and work-orientated variables. Indeed, meta-analytic research from health psychology demonstrates that attitude and subjective norm predict intention (Armitage & Conner, 2001; McEachan et al., 2016). Our findings are in line with other studies (e.g., Kelly & Breinlinger, 1995; Louis, 2001) that find support for the utility of social cognition models of behaviour such as the theory of reasoned action (Fishbein & Ajzen, 2010) for the study of behaviour in intergroup contexts. Our findings thus support the value of integrating perspectives from the literature on behaviour change to the study of ally action. The implication is that to increase our ability to predict ally intention, willingness, and expectation, we need to incorporate constructs that have been developed specifically to predict behavior, such as those offered by the theory of reasoned action.

Limitations and Future Directions

Although the present research advances the literature on predictors of ally action by investigating an expanded range of variables from the literature on collective action and social cognition models of behaviour, it is instructive to consider some limitations. First, consistent with previous literature (Armitage & Conner, 2001), our measures of intention, willingness, and expectation relied on single-item measures. Although the use of single items minimises respondent burden, they have indeterminate reliability. Future research incorporating multiple items can report measurement reliabilities and enable factor analysis to directly test the discriminant validity of intention, willingness, and expectation.

Second, though we had originally planned to collect data on actual participation in online allies training for LGBT inclusion in the workplace at followup, this was not possible due to organisational constraints. Instead, we capitalised on a different, but conceptually related, voluntary in-person training session on transgender awareness offered to staff allies.
None of the measured variables, however, were correlated with this behaviour. This null finding is most likely due to the small sample size and subsequent extremely low level of participation at the second time point. We also note that while the topic of transgender awareness is generally subsumed under the broader theme of LGBT inclusion (Ozturk & Tatli, 2015; Woodford et al., 2014), the differences in training content and specificity (general transgender awareness versus workplace-specific LGBT inclusion) and format (in-person versus online) may have been enough that the actual behaviour was not the action to which the original intention, willingness, and expectation were aimed. Future studies should ensure larger sample sizes to permit sufficiently powered analyses, as well as match intention, willingness, and expectation to the subsequent behaviour as closely as possible (Fishbein & Ajzen, 2010; Kraus, 1995).

**Conclusion**

In conclusion, the present research demonstrates the value of integrating perspectives from social cognition models of behaviour to the study of action by allies. In particular, it points to the utility of constructs from the theory of reasoned action such as attitude and subjective norm to predict intended ally action, over and above variables from the collective action literature. Integrating these variables will bring social psychological researchers closer to fulfilling the aim of predicting people’s actions to advance group interests, status, and power.
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Note

1. The membership list for the allies programme included 1,750 staff, as verified by the organisation’s human resources office. Based on this population size, we computed that in order to represent the views of the overall population with a 95% confidence level and within a 5% margin of error, a minimum sample of 316 respondents would be needed for the survey. According to previous meta-analytic research (Baruch & Holtom, 2008), the average response rate in organisational surveys is 35%. For this population, this translates to about 593 responses. However, organisational surveys have also been known to vary widely in response rates (as low as 14%; Anseel et al., 2010). We therefore opted for a conservative strategy and sent the survey invitation to all 1,750 members of the allies programme. In terms of predicting collective action, based on previous meta-analysis that indicated medium effect sizes (i.e., r's from .34 to .37; van Zomeren et al., 2008), an a priori power analysis suggested that to provide 95% power to detect an effect of medium magnitude, 50 participants would be required. This number was well within the target sample size.
Table 1.
Zero-order correlations, means, and standard deviations for study variables

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*p < .05. **p < .01. ***p < .001.
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*Hierarchical Regression Results for Intention to Participate in Allies Training*

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*p < .05. **p < .01. ***p < .001.
### Table 3.

*Hierarchical Regression Results for Willingness to Participate in Allies Training.*

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Note. CI = confidence interval; LL = lower limit; UL = upper limit.

*p < .05. **p < .01. ***p < .001.
Table 4.
Hierarchical Regression Results for Expectation to Participate in Allies Training.

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*Note. CI = confidence interval; LL = lower limit; UL = upper limit.

*p < .05. **p < .01. ***p < .001.
Chapter 4

Why Do People Engage in Symbolic Collective Action?
Abstract

Three studies explored why people engage in a relatively understudied type of collective action: wearing symbols related to a political cause. Exploratory factor analysis was employed to examine people’s subjective reasons that drive this common, low-cost behaviour. In line with political perspectives on collective action, political reasons were key drivers for symbolic collective action behaviour across the three studies. Study 3a (N = 74) illustrated that wearing a political wrist band is related to political impact/endorsement of the cause, availability of the band, direct and indirect relevance of the cause, and social conformity and approval of others. Study 3b (N = 261) and Study 3c (N = 90) replicated and extended these findings in members of advantaged and disadvantaged groups: cisgender heterosexual employees and LGBT employees who wear a rainbow lanyard in the workplace. Aesthetics emerged as a distinct reason for obtaining a rainbow lanyard, but only for advantaged group members. Logistic regression analysis showed that for both advantaged and disadvantaged groups, subsequent frequent wearing of symbols was driven by political reasons, over and above the standard predictors from the literature on collective action.

Keywords: collective action, motivation, wearing symbols
**Why Do People Engage in Symbolic Collective Action?**

Collective action refers to any behaviour intended to advance the status, interests, or power of a particular social group (Becker, 2012; van Zomeren, 2013; Wright et al., 1990). Such action may be taken by a person acting alone or by many people acting together for change. Agents of social change can include members of a disadvantaged group taking action to improve the conditions of their ingroup, or members of an advantaged group taking action to benefit a disadvantaged outgroup. As a behaviour, collective action can take on many forms (Hanna et al., 2016; Ratliff & Hall, 2014; Theocharis & van Deth, 2016). As reviewed in Chapter 2, these actions range from relatively demanding, high-cost behaviours such as participating in a rally or going on strike, to relatively easy, low-cost behaviours such as signing a petition or (as in Chapter 3) attending an allies training workshop. As new political issues emerge and social movements evolve, group members add behaviours to the expanding repertoire of collective action (Tarrow, 2011; Tilly & Tarrow, 2015).

One low-cost collective action behaviour is the *wearing of symbols*, the display of material objects like badges, pins, t-shirts, wrist bands, lanyards, and other insignia showing symbols, slogans, and visual representations of a political cause or social movement on the self (Halavais, 2012; Hanna et al., 2016; Olesen, 2015). Scholars have argued that such individual symbolic displays are limited in creating concrete social change (Moore, 2008), because wearing symbols functions more as an act of self-expression for the individual. However, there is evidence that wearing symbols can lead to tangible benefits for the social movement, especially when these individual actions are aggregated and enacted on a larger scale. For instance, the iconic yellow silicone wristband, popular between 2004 and 2013, is noted for having raised an estimated £66 million for the nonprofit organisation Livestrong Foundation, which sought to advance the rights and welfare of people with cancer (Cahalane, 2016). This example suggests that, in the context of a larger campaign, symbols can serve to mobilise resources and raise funds for a particular social movement.
In part because of a historical focus on explicitly political behaviours such as protesting, traditional accounts of collective action cannot readily explain why people display material objects like wrist bands and other symbols of a political cause on their bodies. Investigating the reasons that mobilise this relatively understudied behaviour therefore contributes to the explanatory power of our theoretical models of collective action because the use of such symbols is different from traditional forms of action in at least two ways. First, compared to actions such as participating in rallies or attending training workshops (Chapter 3), wearing symbols can be performed with high frequency in daily life, with relatively less demand on an individual's time and material resources (Corcoran et al., 2015; Wiltfang & McAdam, 1991). This suggests that wearing symbols has potential to become a collective action behaviour that can be carried out in the long term. Second, individuals who wear symbols become part of an easily identifiable group, visible to one another and to others. Such symbolic displays can function as representations of a social movement, generating solidarity and connectedness among fellow symbol-wearers (Awad & Wagoner, 2020). Because of their visibility, symbols may also serve as cues to further political thought and action (Edelman, 1971; Olesen, 2015).

In this paper, we contribute to the social psychological literature on collective action by examining the range of reasons why people might wear symbols on the body, drawing from political, instrumental, and social perspectives to collective action. Below we review these various perspectives that outline reasons for collective action, before outlining our approach and research question.

**Political Reasons for Collective Action**

Classical theories of protest propose that individuals engage in collective action in response to group-based experiences of political grievances, relative deprivation, or perceived injustice (Gurney & Tierney, 1982; Runciman, 1966; Tyler, 2001; Walker & Smith, 2002). That is, people take action either through traditional political channels (e.g., voting in a referendum or contacting a policymaker) or outside institutionalised political spaces (e.g.,
marching in the street) in order to address a problem affecting their group’s power, status, and collective interests.

Likewise, influential approaches like social identity theory (Tajfel & Turner, 1979) focus on how members of disadvantaged groups become involved in collective action to improve not just their own individual situation but the situation of their entire ingroup. In support of these theoretical accounts, meta-analytic research (Smith et al., 2012; van Zomeren et al., 2008; Chapter 2 of this thesis) and primary studies (e.g., Chapter 3 of this thesis) has found that collective action is predicted by grievances such as feelings of relative deprivation and perceived injustice.

Political perspectives thus account for why individuals take action when they are affected by a particular political problem. However, they are limited in at least two ways. First they are less successful in explaining why people would engage in symbolic action (e.g., wearing a pin about Scottish independence) instead of more overtly political action (e.g., voting in a referendum on Scottish independence). Second, these perspectives do not explain why people who are not directly affected by the political problem would become involved and engage in symbolic action, for example public celebrities who wear a red ribbon for HIV/AIDS or a pink ribbon for breast cancer awareness (Coombes, 2004). More specifically, these perspectives do not readily account for why advantaged group members would engage in symbolic collective action on behalf of a disadvantaged outgroup, for example, cisgender heterosexual people wearing a badge for lesbian, gay, bisexual, and transgender (LGBT) rights (Goody & De Vries, 2002). Thus political perspectives do not fully address the political issue, or when the individuals are unaffected by the cause, or themselves belong to the high-status group that benefits from the status inequality.

Instrumental Reasons for Collective Action

Approaches such as resource mobilisation theory (Klandermans, 1984; McCarthy & Zald, 1977) and political opportunity theory (Meyer, 2004; Tilly, 1978) do not assume that only the disadvantaged become involved in collective action. Rather these theoretical
accounts begin with the premise that anyone can engage in collective action or participate in social movements. More important is whether individuals perceive and have access to the resources and relevant opportunities to participate. Within this view, a person’s participation is contingent on their appraisal of the costs and benefits of taking action (Klandermans, 1984). In other words, collective action is an instrumental behaviour, as a means toward achieving personally desired goals. These instrumental considerations have been elaborated further by Hornsey et al. (2006) into distinct but related goals of collective action: to influence policymakers, to influence public opinion, and to build a social movement.

Instrumental perspectives can explain individuals’ calculated appraisals of the costs, benefits, and effectiveness of taking collective action. However, the narrow motivational focus of these perspectives do not explain why an individual might engage in highly symbolic actions that, on their own, may have little impact on the group’s situation. It seems unlikely, for example, that an individual’s wearing a badge would directly influence policymaking or sway public opinion; in fact, empirical evidence suggests that people engage in collective action even when they believe it will not effectively achieve such ends (Hornsey et al., 2006). Instrumental perspectives also fail to consider the more social reasons of wearing political symbols on the body that have little to do with its perceived political effectiveness (Yodanis, 2019). Because wearing symbols on the body involves a deliberate displaying of oneself to others, purely instrumental accounts that focus on the political goals of collective action are limited in accounting for this social behaviour.

Social Reasons for Collective Action

Collective action rarely takes place in social isolation. According to Klandermans (1984), individuals care deeply about the positive and negative reactions of significant others to their own participation in collective action. Furthermore, people may join social movements and engage in the same collective action behaviours as others as a way to satisfy a fundamental need to belong (Baumeister et al., 2000). Social perspectives, in contrast to political and instrumental approaches, emphasise the more relational dimensions of collective action, including the role of social embeddedness (an individual’s membership
in social networks that encourage or discourage activism; van Stekelenburg & Klandermans, 2013) in mobilising people to act. Social perspectives suggest that such considerations can partly account for collective action behaviours that are highly visible and expressive, such as wearing symbols on the body.

**Durability: The Question of Sustained Action Over Time**

Aside from the paucity of research on symbolic collective action, there is also relatively little research on the durability of such collective action behaviour. In addition to the question of why people take action, including symbolic action, a secondary interest in this paper is why people continue to take symbolic collective action once this behavior has been initiated. Aside from the paucity of research on symbolic collective action, there is also relatively little research on the durability of such collective action behaviours. Durability refers to an enacted behaviour’s maintenance over time without the presence of repeated intervention (De Young, 1993; Werner, 2013). Previous work on collective action has traditionally focused on typically episodic, opportunity-driven, and sometimes even one-off behaviours such as joining a protest, signing a petition, or voting (Chatterton & Wilson, 2013). On the other hand, behaviours such as wearing symbols are often enacted in daily contexts and thus have high potential for repetition, without incurring much material or time costs (Verplanken, 2006; Wood & Neal, 2007). It is unknown, however, what factors might be associated with the durability of collective action behaviours, particularly the action of wearing symbols on the body. Therefore, an additional interest in this study is the exploration of the relationship between reasons for initial enactment and the subsequent durability of such symbolic collective action behaviours.

**The Current Studies**

Three studies investigate the self-reported reasons why people wear these symbolic artifacts in daily life, across two contexts. The central questions are: What reasons drive people to engage in the collective action behaviour of wearing symbols? And which of these reasons are perceived as most important? What is the relationship between reasons for initiating the behaviour and the subsequent durability of this behaviour?
To better understand people's motivation for performing symbolic actions, we investigate a range of reasons, including political (e.g., agreeing with the cause), instrumental (e.g., to raise money for the cause), and social (e.g., friends wear them) reasons, using a data-driven approach. We employ exploratory factor analysis in three studies to identify and differentiate meaningful subgroups of reasons why people might engage in these forms of relatively low-cost, symbolic collective action. The first study, an analysis of previously collected data, examines the wearing of political wristbands, such as those used in campaigns against poverty, cancer, or HIV stigma (Lieber, 2005; Sireau, 2009). These elastic wristbands, also known as bracelets or baller bands, are typically made of silicone and come in a specific colour associated with a particular cause. The second and third studies, which analyse newly collected data, focus on the use and display of rainbow-coloured lanyards, both its initial acquisition and subsequent continued use, by employees as a publicly visible symbol, which has been used in programmes designed for LGBT inclusion in the workplace (Salter & Migliaccio, 2019). Lanyards refer to a cord or strap, often made of polyester fabric, worn around the neck like a necklace and fitted with a hook or clip on the end to carry items such as keys or workplace identification cards (Willems & Warren, 2020). Both political bands and rainbow lanyards are modern-day artifacts designed to be worn on the body and to symbolise a particular social cause, making their use suitable as symbolic collective action behaviour.

**Study 3a**

**Method**

**Participants**

Respondents were 74 individuals (47 women, 27 men) from the UK who had worn a political band in the past 12 months. The majority (78%) were students, with a mean age of 21.91 years (SD = 8.39).

**Design and Procedure**

The study, based on secondary data, employed a cross-sectional survey design. Prospective participants who were wearing a political band in public were approached and
invited to fill out a paper questionnaire that contained measures of their reasons for wearing a political band, their past engagement in different collective action behaviours, and demographic variables. No exclusion criteria were applied for the type of cause represented by the political band. Data was collected in 2005, at the height of the popularity of these wristbands.

**Measure: Reasons for Wearing a Political Band**

Participants rated the extent to which 15 reasons were important in their decision to wear a political band on a six-point scale with anchors of 0 (*not at all important*) to 5 (*extremely important*). Items were derived from a range of theoretical accounts of why people might engage in collective action. These include political reasons, such as attitudes and self-relevance (‘I agree with the cause’, ‘It’s a public expression of my values’, ‘The cause affects me directly, ‘The cause affects someone I know’); instrumental reasons, such as beliefs about the action’s effectiveness (‘It raises money for the cause’, ‘It raises awareness of the cause’) and cost-benefit analysis of performing the behaviour (‘It is easy to find and buy’, ‘I kept hearing about it’, ‘It is cheap’); and social reasons, such as a desire to present a positive view of oneself (‘People will see me as a caring person’, ‘It fits with my image’) and to behave similarly to valued others (‘Celebrities wear them’, ‘Lots of people my age wear them’, ‘My friends wear them’, ‘People in my family wear them’).

**Results**

**Exploratory Factor Analysis of Reasons for Wearing a Political Band**

We employed exploratory factor analysis (EFA) to assess individuals’ reasons for wearing a political band. The factor structure underlying the 15 items assessing reasons for wearing a political band was first examined. All 15 items had non-zero variance and were correlated with at least two other items at a magnitude of .30 or higher. Examination of boxplots indicated that scores were generally normally distributed. The Kaiser-Meyer-Olkin measure of sampling adequacy was .72, above the recommended value of .60, and Bartlett’s test of sphericity was significant, $\chi^2 (105) = 555.88, p < .001$. Given these indicators, a factor analysis was deemed to be suitable with all 15 items.
Initial extraction using the maximum likelihood method indicated the presence of a Heywood case, so principal axis factoring was employed to account for this issue. Oblique rotation was employed. Kaiser’s criterion (Eigenvalues above 1.0) suggested an initial four-factor solution which explained 68% of the variance, while examination of the scree plot suggested an initial three-factor solution.

This initial factor structure was not interpreted because we had to exclude two items (‘People in my family wear them’ and ‘It raises money for the cause’), which failed to meet the minimum criterion of having a primary factor loading of at least 0.40. The remaining 13 items each clearly loaded onto one of the factors (0.40 or higher) with low cross-loadings on other factors (0.30 or lower), and were therefore retained for the second stage of the analysis.

Factor analysis was then re-conducted on the remaining 13 items, using principal axis factoring and oblique rotation. Kaiser’s criterion (Eigenvalues above 1.0) suggested a four-factor solution which explained 74% of the variance, while examination of the scree plot suggested an three-factor solution which explained 65% of the variance. The resulting communalities ranged from .37 to .95, confirming shared common variance across items, all of which had primary loadings above 0.40 and cross-loadings below 0.30. Examination of items and factor loadings indicated that the four-factor solution was interpretable. The pattern matrix for this final solution is presented in Table 1.

Factor 1 contained five items (‘My friends wear them’, ‘Lots of people my age wear them’, ‘It fits with my image’, ‘People will see me as a caring person’, and ‘Celebrities wear them’). These items tapped into interpersonal considerations behind wearing a political band, including conformity to social groups such as peers and positive presentation of oneself to others. This factor was labeled social conformity and approval and explained 32% of the variance.

Factor 2 contained three items (‘It is easy to find and buy’, ‘It is cheap’, and ‘I kept hearing about it’). These items were focused on the availability and accessibility of the
political band as a material resource. This factor was labeled availability and explained 21% of the variance.

Factor 3 contained three items (‘It raises awareness of the cause’, ‘It’s a public expression of my values’, and ‘I agree with the cause’). These items were focused on the intended impact of wearing the political band for the cause being supported by the individual. This factor was labeled political impact/endorsement of the cause and explained 12% of the variance.

Factor 4 contained two items (‘The cause affects me directly’ and ‘The cause affects someone I know’). These items were focused on the relevance of the political cause to oneself or to a close other. This factor was labeled direct and indirect relevance and explained 9% of the variance.

**Comparison of Reasons for Wearing a Political Band**

Composite measures were created for each of the four factors based on the mean of the items, with higher scores indicating greater importance of the reason for wearing a political band. Descriptive statistics are presented in Table 2. All four measures had acceptable internal consistency.

A within-groups analysis of variance (ANOVA) was conducted to determine whether there were differences in the importance accorded to the reasons for wearing a political band. Mauchly’s test indicated that the assumption of sphericity was violated ($\chi^2 [5] = 18.79, p = .002$), and therefore we employed a Huynh-Feldt correction. There was a significant difference in the importance accorded to the four reasons, $F (2.67, 193.78) = 46.44, p < .001$. Post hoc comparisons with Bonferroni correction indicated that the factor labelled political impact/endorsement of the cause was the most important reason for wearing a political band, with a mean rating significantly higher than the other three reasons (see Table 2). Overall there was no evidence of a difference between the importance accorded to the remaining three reasons, with one exception: Availability was rated as more important than social conformity and approval.

**Discussion**
Study 3a provided insights into why people engage in a particular collective action behaviour: wearing symbols, specifically political bands that represent a range of social causes. Exploratory factor analysis indicated that individuals wore political bands because of reasons related to social conformity and approval of others, availability of the political band, political impact/endorsement of the cause, and direct and indirect relevance of the cause. Of these, the most important reason for wearing a political band was political impact/endorsement of the cause. Thus, we found evidence, in line with political perspectives on collective action, that political reasons are key drivers for the behaviour of wearing symbols.

However, there are some limitations to this study and several reasons to replicate and extend these findings. First, we relied on an undifferentiated sample of individuals who were recruited because they were seen to engage in the symbolic behaviour regardless of the specific political cause. It is unclear whether or not participants were members of the group negatively affected by the cause represented by the political band in use. Therefore in the next studies, we collected data on a specific social issue: the cause of lesbian, gay, bisexual, and transgender (LGBT) inclusion in the workplace. This allowed us to investigate the reasons for engaging in symbolic collective action among members of the advantaged group (Study 3b: cisgender heterosexual employees) as well as among the disadvantaged group (Study 3c: LGBT employees).

Second, Study 3a did not assess the durability of wearing the symbol. Thus it is unknown how often the participants actually engaged in the behaviour in the course of daily life. Therefore in the next studies, we distinguished between initial acquisition of the symbolic artifact and its subsequent regular use. We employed a measure of subsequent frequent participation and attempted to predict this from the reasons for initial acquisition.

Finally, the next studies included measures of four standard predictors of collective action that have been identified in the literature (Sabucedo et al., 2018, 2019; van Stekelenburg & Klandermans, 2017; van Zomeren et al., 2008). These were group-based anger (Livingstone et al., 2009), identification with the disadvantaged group (Subašić et al.,
2018), group efficacy (Bandura, 2000), and moral conviction (Skitka & Morgan, 2014). These four standard variables have been shown in primary studies as well as meta-analyses (van Zomeren et al., 2008) to be key antecedents of collective action generally and therefore, we expected them to also significantly predict symbolic forms of collective action. We thus employed hierarchical regression to determine to what extent the reasons identified through factor analysis could account for subsequent frequent behaviour, over and above these four standard predictors from the literature.

**Study 3b**

**Method**

**Participants**

Participants were 261 cisgender heterosexual employees from a UK university who had obtained a rainbow lanyard as part of an organisation-led programme for LGBT inclusion in the workplace. Participants included 191 women (73%) and 70 men, with a mean age of 39.45 years (SD = 9.80).

**Design and Procedure**

The study employed a cross-sectional survey design. Individualised invitations were emailed to 1,750 employees who had signed up for a rainbow lanyard. A prize draw incentive for a £20 voucher was offered for participation. Participants answered an online questionnaire that contained measures of their reasons for obtaining a rainbow lanyard, the frequency of their subsequent lanyard use, measures related to standard predictors of collective action (anger, identification, efficacy, and moral conviction), and demographic variables. Data was collected in 2018, two years after the organisation had first made rainbow lanyards available to interested staff.

**Measures**

The following measures were included in the questionnaire.

**Reasons for Obtaining a Rainbow Lanyard.** Participants rated the extent to which 15 reasons were important in their decision to obtain a rainbow lanyard on a six-point scale with anchors of 1 (*not at all important*) to 5 (*extremely important*). Five items were the same
as in Study 3a (‘I agree with the cause’, ‘It’s a public expression of my values’, ‘It raises awareness of the cause’, ‘The cause affects me directly’, ‘The cause affects someone I know’). Six items from Study 3a were adapted to fit the context of Study 3b. Specifically, because the rainbow lanyard was freely available to any interested employee, we modified two items referring to the cost of acquiring them (‘It was easy to obtain’, ‘It’s free’). In addition, four items referring to significant others were reworded to refer to the university workplace context (‘University leaders wear them’, ‘Many university staff wear them’, ‘People I work closely with wear them’, and ‘My friends in the University wear them’). Finally, informal accounts from employees led to the inclusion of four additional items assessing aesthetics and ease of use (‘It’s easy to use’, ‘It looks good’, ‘I like the rainbow colours’, and ‘I didn’t like the other university lanyards’).

**Standard Predictors of Collective Action.** Four standard predictors from the literature on collective action were measured.

**Anger.** Anger at anti-LGBT discrimination was measured using three items adapted from Iyer et al. (2003, 2007). Specifically, a hypothetical scenario of an LGBT staff member or student experiencing discrimination was presented: ‘When I think about an LGBT staff member or student at our university experiencing discrimination or exclusion because of their gender or sexuality, I feel angry/outraged/furious (α = .92). The response scale ranged from 1 (*not at all*) to 5 (*very much*).

**Identification with the Disadvantaged Group.** Identification with LGBT people was measured using a 3-item solidarity scale (α = .74) adapted from Leach et al. (2008): ‘I feel a bond with LGBT people’, ‘I feel solidarity with LGBT people’, and ‘I feel committed to LGBT people’. The response scale ranged from 1 (*strongly disagree*) to 5 (*strongly agree*).

**Group Efficacy.** Group efficacy was assessed using two items adapted from van Zomeren et al. (2013): ‘I believe that members of the allies programme, as a group, can promote LGBT inclusion’ and ‘I believe that members of the allies programme, through joint actions, can promote LGBT inclusion’ (r = .70). The response scale for both measures ranged from 1 (*strongly disagree*) to 5 (*strongly agree*).
**Moral Conviction.** Moral conviction was assessed using four items (α = .92) adapted from Skitka et al. (2017): ‘To what extent is your being an ally to LGBT people connected to your beliefs about fundamental right and wrong / a reflection of your core moral beliefs and convictions / based on moral principles / a moral stance?’. The response scale ranged from 1 (not at all) to 5 (very much).

**Frequency of Subsequent Lanyard Use.** Subsequent lanyard use was measured by a single item that asked participants ‘On a typical work week, how often do you wear your rainbow lanyard?’. Participants were classified into two groups: high-frequency users (those who reported engaging in the behaviour on most days if not every day) and low-frequency users (those who reported the behaviour half the time or less).

**Results**

We employed exploratory factor analysis (EFA) to investigate cisgender heterosexual employees’ reasons for obtaining a rainbow lanyard, using the same procedures as in Study 3a. We then ran a hierarchical logistic regression analysis to determine to what extent these EFA-derived reasons could account for subsequent frequent lanyard use by cisgender heterosexual employees, over and above the standard predictors from the literature on collective action.

**Exploratory Factor Analysis of Reasons for Obtaining a Rainbow Lanyard**

The factor structure underlying the 15 items assessing reasons for obtaining a rainbow lanyard among cisgender heterosexual employees was first examined. All 15 items had non-zero variance. All items were correlated with at least two other items at a magnitude of .30 or higher, except for one item (‘I didn’t like the other university lanyards’), which was therefore removed. Examination of boxplots indicated that scores were generally normally distributed. The Kaiser-Meyer-Olkin measure of sampling adequacy was .77, above the recommended value of .60, and Bartlett’s test of sphericity was significant, $\chi^2 (91) = 2025.78$, $p < .001$. Given these indicators, factor analysis was deemed to be suitable with the 14 items.
Initial extraction using the maximum likelihood method indicated the presence of a Heywood case, so principal axis factoring was employed to account for this issue. Because we assumed that the factors would be somewhat related, we used oblique rotation. Kaiser’s criterion (Eigenvalues above 1.0) suggested an initial four-factor solution which explained 71% of the variance, while examination of the scree plot suggested either a two-factor solution or a four-factor solution.

This initial factor structure was not interpreted because we had to exclude two items (‘LGBT inclusion affects me directly’ and ‘LGBT inclusion affects someone I know’), which failed to meet the minimum criterion of having a primary factor loading of at least .40. The remaining 12 items each clearly loaded onto one of the factors (0.40 or higher) with low cross-loadings on other factors (0.30 or lower), and were therefore retained for the second stage of the analysis.

Factor analysis was then re-conducted on the remaining 12 items, using principal axis factoring and oblique rotation. Kaiser’s criterion (Eigenvalues above 1.0) suggested a three-factor solution which explained 71% of the variance, while examination of the scree plot suggested either a two-factor or four-factor solution. The resulting communalities ranged from .37 to .90, confirming that each item shared some common variance with other items, all of which had primary loadings above 0.40 and cross-loadings below 0.30. Examination of items and factor loadings indicated that the four-factor solution was interpretable. The pattern matrix for this final solution is presented in Table 3.

Factor 1 contained four items (‘People I work closely with wear them’, ‘Many university staff wear them’, ‘My friends in the university wear them’, and ‘University leaders wear them’). These items tapped into interpersonal considerations behind wearing a rainbow lanyard, particularly in conformity with valued co-workers’ behaviour. This factor was labeled social conformity and explained 17% of the variance.

Factor 2 contained five items (‘It is easy to use’, ‘It is free’, ‘It is easy to obtain’, ‘It looks good’, and ‘I like the rainbow colours’). These items were focused on the availability
and visual appeal of the rainbow lanyard as a material artifact. This factor was labeled
*availability and aesthetics* and explained 38% of the variance.

Factor 3 contained three items (‘It raises awareness about LGBT inclusion’, ‘It’s a
public expression of my values’, and ‘I agree with LGBT inclusion’). These items were
focused on the political cause being supported by the individual. This factor was labeled
*political impact/endorsement of the cause* and explained 16% of the variance.

**Comparison of Reasons for Obtaining a Rainbow Lanyard**

Composite measures were created for each of the three factors based on the mean
of the items, with higher scores indicating greater subjective importance of the reason for
obtaining a rainbow lanyard. Descriptive statistics are presented in Table 4. All three
measures had acceptable internal consistency.

A within-groups analysis of variance (ANOVA) was conducted to determine whether
there were differences in the importance accorded to the reasons for obtaining a rainbow
lanyard by cisgender heterosexual employees. Mauchly’s test indicated that the assumption
of sphericity was violated ($\chi^2[2] = 5.98, p = .050$), and therefore we employed a Huynh-Feldt
correction. There was a significant difference in the importance accorded to the three
reasons, $F(1.91, 512.20) = 713.65, p < .001$. Post hoc comparisons with Bonferroni
correction indicated that the three reasons were all significantly different from each other.
The factor labelled political impact/endorsement of the cause was the most important reason
for obtaining a rainbow lanyard among cisgender heterosexual employees, followed by
social conformity and then availability and aesthetics (see Table 4).

**Predicting Subsequent Frequent Use of a Rainbow Lanyard**

To determine which reasons are more strongly associated with subsequent frequent
lanyard-wearing by cisgender heterosexual employees, we conducted a hierarchical logistic
regression analysis, with frequency group (high-frequency versus low-frequency use) as the
outcome. Standard predictors of collective action (anger, identification, efficacy, and moral
conviction) were entered in the first step, followed by the reasons for obtaining a rainbow
lanyard (social conformity, availability and aesthetics, and political impact/endorsement of cause) in the second step.

Data was screened against the following assumptions. Examination of intercorrelations among the reasons indicated no extreme multicollinearity between predictors (all $r$'s < .80). There were sufficient events per predictor; the observed ratio was 28.4, above the recommended ratio of 10. These general indicators suggested that logistic regression was suitable.

The reference category for the outcome variable was the low-frequency use group. Anger, identification, efficacy, and moral conviction were entered in the first step, which explained 1% of (Nagelkerke $R^2$) of the variance. The three reasons identified from the factor analysis were entered in the second step, which accounted for 7% (Nagelkerke $R^2$) of the variance. The model accounted for 7% (Nagelkerke $R^2$) of the variance and was able to correctly classify 77% of cases. A Hosmer and Lemeshow test indicated that the final model had adequate fit with the data, $\chi^2 (8) = 3.88, p = .868$. Table 5 shows the logistic regression coefficients, Wald test, and odds ratios for each of the predictors. One reason for obtaining a rainbow lanyard — the factor labelled political commitment/endorsement of the cause — was a significant predictor of frequency of subsequent lanyard use. That is, the more importance they placed on their political commitment to and endorsement of LGBT inclusion as a reason for obtaining a rainbow lanyard, the more likely cisgender heterosexual employees were to frequently wear their lanyard at work. None of the other predictors showed significant effects.

**Discussion**

Study 3b provided further insights into why people, particular members of the advantaged group, engage in symbolic collective action. We improved on the design of Study 3a by collecting data on a specific social cause: the inclusion of lesbian, gay, bisexual, and transgender (LGBT) people in the workplace. Cisgender heterosexual employees obtained a rainbow lanyard for reasons related to social conformity, availability and aesthetics, and political commitment to and endorsement of the cause of LGBT inclusion. Of these reasons and replicating the general results of Study 3a, we found that political
commitment/endorsement of the cause was reported as the most important reason for obtaining a rainbow lanyard.

Study 3b also distinguished between initial acquisition of the symbolic artifact and its continued use, and examined the extent to which the reasons for acquisition predicted frequency of subsequent use, over and above standard predictors of collective action. Subsequent frequent wearing of the rainbow lanyard by cisgender heterosexual employees was associated with obtaining a rainbow lanyard for political reasons, but unexpectedly not by standard predictors of anger, identification with the disadvantaged group, group efficacy, or moral conviction. This suggests that other variables beyond those advanced in the literature might need to be taken into account when predicting the durability of collective action beyond its initial enactment.

Study 3b was limited in its focus on members of the advantaged group acting on behalf of the disadvantaged (i.e., cisgender heterosexual employees supporting LGBT inclusion in the workplace). In Study 3c, we examine symbolic collective action by members of the disadvantaged group who stand to benefit most from the action (i.e., LGBT employees from the same organisation). We also test the same standard predictors (anger, identification with the disadvantaged group, group efficacy, and moral conviction) in order to predict the durability of collective action beyond its initial enactment by disadvantaged group members.

**Study 3c**

**Method**

**Participants**

Participants were 90 LGBT employees from the same UK university in Study 3b who had obtained a rainbow lanyard as part of an organisation-led programme for LGBT inclusion in the workplace. Participants included 55 women, 25 men, and 10 non-binary individuals, with a mean age of 37.09 years ($SD = 10.53$).

**Design, Measures, and Procedure**

The same design and measures were employed as in Study 3b. Scales measuring the four standard predictors of collective action showed acceptable internal consistency:
anger at anti-LGBT discrimination ($\alpha = .93$), identification with LGBT people ($\alpha = .89$), group efficacy ($r = .86$), and moral conviction ($\alpha = .91$).

**Results**

**Exploratory Factor Analysis of Reasons for Obtaining a Rainbow Lanyard**

The factor structure underlying the 15 items assessing reasons for obtaining a rainbow lanyard among LGBT employees was first examined. All 15 items had non-zero variance. All items were correlated with at least two other items at a magnitude of 0.30 or higher except for one item ('LGBT inclusion affects me directly'), which was therefore removed. Examination of boxplots indicated that scores were generally normally distributed. The Kaiser-Meyer-Olkin measure of sampling adequacy was .81, above the recommended value of .60, and Bartlett’s test of sphericity was significant, $\chi^2 (91) = 830.30, p < .001$.

Given these indicators, factor analysis was deemed to be suitable with the 14 items.

Initial extraction using the maximum likelihood method indicated the presence of a Heywood case, so principal axis factoring was employed to account for this issue. Because we assumed that the factors would be somewhat related, we used oblique rotation. Kaiser’s criterion (Eigenvalues above 1.0) suggested an initial four-factor solution which explained 75% of the variance, while examination of the scree plot suggested a two-factor solution.

This initial factor structure was not interpreted because we had to exclude three items. One item ('I didn’t like the other university lanyards') failed to meet the minimum criterion of having a primary factor loading of at least .40. Another two items ('It looks good' and 'I like the rainbow colours') had cross-loadings on a second factor above 0.30. The remaining 11 items each clearly loaded onto one of the factors (0.40 or higher) with low cross-loadings on other factors (0.30 or lower), and were therefore retained for the second stage of the analysis.

Factor analysis was then re-conducted on the remaining 11 items, using principal axis factoring and oblique rotation. Kaiser’s criterion (Eigenvalues above 1.0) suggested a four-factor solution which explained 83% of the variance, while examination of the scree plot suggested a two-factor solution. The resulting communalities ranged from .35 to .87,
confirming shared common variance across items, all of which had primary loadings above 0.40 and cross-loadings below 0.30. Examination of items and factor loadings indicated that the four-factor solution was interpretable. The pattern matrix for this final solution is presented in Table 6.

Factor 1 contained four items (‘Many university staff wear them’, ‘My friends in the university wear them’, ‘People I work closely with wear them’, and ‘University leaders wear them’). These items tapped into interpersonal considerations behind wearing a rainbow lanyard, particularly in conformity with valued co-workers’ behaviour. This factor was labeled social conformity and explained 43% of the variance.

Factor 2 contained three items (‘It is easy to obtain’, ‘It is free’, ‘It is easy to use’). These items were focused on the availability and accessibility of the rainbow lanyard as a material resource. This factor was labeled availability and explained 16% of the variance.

Factor 3 contained two items (‘It’s a public expression of my values’ and ‘It raises awareness about LGBT inclusion’). These items were focused on the external expression and intended impact of wearing the rainbow lanyard. This factor was labeled political impact and explained 13% of the variance.

Factor 4 contained two items (‘LGBT inclusion affects someone I know’ and ‘I agree with LGBT inclusion’). These items were focused on the more subjective, immediate importance and endorsement of the cause that the rainbow lanyard symbolises. This factor was labeled indirect relevance/endorsement of the cause, and explained 11% of the variance.

**Comparison of Reasons for Obtaining a Rainbow Lanyard**

Composite measures were created for each of the four factors based on the mean of the items, with higher scores indicating greater importance of the reason for obtaining a rainbow lanyard. Descriptive statistics are presented in Table 7. Three of the four measures (social conformity, availability, and political impact) had acceptable internal consistency; the fourth (indirect relevance/endorsement of the cause) had two items that were only moderately correlated ($r = .46$).
A within-groups analysis of variance (ANOVA) was conducted to determine whether there were differences in the importance accorded to the reasons for obtaining a rainbow lanyard by LGBT employees. Mauchly’s test indicated that the assumption of sphericity was violated ($\chi^2[5] = 17.25, p = .004$), and therefore we employed a Huynh-Feldt correction. There was a significant difference in the importance accorded to the four reasons, $F(2.75, 244.29) = 231.00, p < .001$. Post hoc comparisons with Bonferroni correction indicated that the two political factors (political impact, indirect relevance/endorsement of the cause) were the most important reasons for obtaining a rainbow lanyard, with mean ratings significantly higher than the other two reasons but not significantly different from each other (see Table 7). Availability and social conformity were significantly different from each other; the latter was the least important reason for obtaining a rainbow lanyard among LGBT employees.

**Predicting Subsequent Frequent Use of a Rainbow Lanyard**

To determine which reasons are more strongly associated with subsequent frequent lanyard-wearing by LGBT employees, we conducted a hierarchical logistic regression analysis, with frequency group (high-frequency versus low-frequency use) as the outcome. Standard predictors of collective action (anger, identification, efficacy, and moral conviction) were entered in the first step, followed by the reasons for obtaining a rainbow lanyard (social conformity, availability, and political impact) in the second step.

Data was screened against the following assumptions. Examination of intercorrelations among the reasons indicated no extreme multicollinearity between predictors (all $r$’s < .80). Measurement error was acceptable for all predictors except for the two-item factor labeled indirect relevance/endorsement of the cause ($r = .46$), therefore this was excluded from the regression. The observed ratio of events per predictor was 9.14, slightly below the recommended ratio of 10.

The reference category for the outcome variable was the low-frequency use group. Anger, identification, efficacy, and moral conviction were entered in the first step, which explained 8% of (Nagelkerke $R^2$) of the variance. The three reasons identified from the factor analysis (social conformity, availability, and political impact) were entered in the second step,
which accounted for 14% (Nagelkerke $R^2$) of the variance. The model accounted for 22% (Nagelkerke $R^2$) of the variance and was able to correctly classify 78% of cases. A Hosmer and Lemeshow test indicated that the final model had adequate fit with the data, $\chi^2 (8) = 2.86, p = .943$. Table 8 shows the logistic regression coefficients, Wald test, and odds ratios for each of the predictors. Examination of the coefficients at the final step indicated that two variables were significant unique predictors of frequent lanyard use: moral conviction and political impact. Moral conviction was negatively associated with frequent lanyard use, while political impact was positively associated with frequent lanyard use. That is, the more they had strong moral opinions about LGBT inclusion, the less likely LGBT employees were to continue regularly wearing their lanyard at work. On the other hand, the more importance they accorded to political impact as a reason for obtaining a rainbow lanyard, the more likely LGBT employees were to continue regularly wearing their lanyard at work.

**Discussion**

Study 3c provided further insights into why people, particularly members of the disadvantaged group, engage in the particular collective action behaviour of wearing symbols. We replicated the design of Study 3b but this time focused on LGBT employees supporting LGBT inclusion in the workplace. LGBT employees obtained a rainbow lanyard for reasons related to social conformity, availability, political impact, and indirect relevance/endorsement of the cause of LGBT inclusion. Of these, the politically orientated reasons (political impact, as well as indirect relevance/endorsement of the cause) were reported as the most important reasons. Furthermore, subsequent frequent lanyard use by LGBT employees was associated with obtaining a rainbow lanyard for political impact.

Similarities and differences were observed for the reasons that members of the advantaged group (Study 3b) and the disadvantaged group (Study 3c) engaged in symbolic collective action. Exploratory factor analyses indicated that social conformity and availability were two reasons common across the two groups. Politically orientated reasons were observed across the two groups, but the exact content and structure of these reasons differed. In particular, disadvantaged group members, but not advantaged group members,
appeared to make a differentiation between the personal significance of the cause affecting themselves or someone they knew, versus the intended political impact of wearing a symbol like a rainbow lanyard in terms of expressing values and raising awareness. Aesthetics was a distinct reason for obtaining a rainbow lanyard, but only for advantaged group members.

Furthermore, for both members of advantaged and disadvantaged groups, subsequent frequent wearing of the rainbow lanyard was associated with obtaining a rainbow lanyard for political reasons, over and above the standard predictors of anger, identification with the disadvantaged group, group efficacy, or moral conviction. Study 3c also replicated the null findings of Study 3b: durable action was not significantly associated with the four standard predictors of collective action, with the exception of moral conviction. Unexpectedly, moral conviction was negatively associated with durable action by disadvantaged group members.

**General Discussion**

The aim of the present studies was to investigate the self-reported reasons for people's engagement in symbolic collective action. The central questions across these three studies were: What reasons drive people to engage in the collective action behaviour of wearing symbols? And which of these reasons are perceived as most important? What is the relationship between reasons for initiating the behaviour and the subsequent durability of this behaviour? Using a factor-analytic approach, we found that individuals wear symbols for a range of reasons. These include political (e.g., the expected political impact of engaging in the behaviour), instrumental (e.g., availability), and social (e.g., conforming and seeking approval from valued others) reasons. Across the studies, we found evidence, in line with political perspectives on collective action, that political reasons are the most important subjective reasons for the behaviour of wearing symbols.

The findings extend the literature on collective action in several ways. First, the studies highlight a relatively understudied form of collective action: the wearing of symbols on the self (Halavais, 2012; Hanna et al., 2016), illustrating that this type of action is driven by a range of reasons, foremost of which are perceptions of their political impact. Contrary to
traditional theories of political grievances, relative deprivation, and perceived injustice (Gurney & Tierney, 1982; Runciman, 1966; Tyler, 2001; Walker & Smith, 2002), symbolic action can be taken by group members who are not necessarily affected by a particular issue (Study 3a) or by advantaged group members who do not necessarily stand to gain from the advocated social change (Study 3b). This suggests that symbolic action may be a particularly accessible form of collective action open to the general public, advantaged group members, and disadvantaged group members alike, so long as they appraise the political dimension of the behaviour. Our findings indicate that theorising on political reasons as mobilisers of action on an issue can be extended to more symbolic forms of collective action.

Furthermore, our findings indicate that novel factors such as the perception of political impact of the action — which are located beyond the standard predictors emphasised in the literature — can be important in predicting durable action, by both disadvantaged and advantaged group members. Traditional political theories emphasise the mobilising effects of perceiving a grievance (Gurney & Tierney, 1982; Runciman, 1966) or appraising the status quo as unjust or disadvantageous to the group (Tyler, 2001; Walker & Smith, 2002) as antecedents of action. Our findings, however, extend this line of theorising by demonstrating that people’s subjective beliefs about what a particular action can achieve (e.g. raising political awareness, expressing important political values) are also important reasons for collective action. These subjective beliefs, also termed goal contents (Austin & Vancouver, 1996; Ryan & Deci, 2017) or participation motives (Ingledew & Markland, 2008), function as the reasoned basis for action and have been largely overlooked in the literature on collective action, partly because of the traditional primacy placed on group identity processes (Hornsey et al., 2006).

In addition, influential approaches like social identity theory (Tajfel & Turner, 1979) have emphasised the perspective of disadvantaged group members and their engagement in collective action to improve not the situation of their entire ingroup. Our findings suggest that not only do advantaged group members take action on behalf of the disadvantaged (Louis et al., 2019; Radke et al., 2020) but there are similarities and differences in the
perceived reasons for taking symbolic collective action by advantaged versus disadvantaged groups. Both groups recognised politically orientated reasons for taking action; however, disadvantaged group members, but not advantaged group members, differentiated between the personal significance of the cause as it affects themselves or someone they knew, versus the intended political impact of symbolic action. This is consistent with the literature on the effect of power and relative status on differential processing of group information (Fiske, 1993; Sedikides, 1997): advantaged group members have less elaborated cognitions about the cause and potential actions related to it, compared to disadvantaged group members. Furthermore, in the case of symbolic collective action, advantaged group members also considered non-political reasons for engagement that had little to do with the cause itself but were more centred on the visual nature of symbolic display, such as fulfilling individual aesthetic needs (delle Donne, 2010). This is consistent with the argument that advantaged group members may take action not necessarily because of solidarity with the disadvantaged group but in order to satisfy more personal, self-orientated motivations (Radke et al., 2020).

Finally, we apply the concept of durability of behaviour (De Young, 1993; Werner, 2013) as a novel avenue for predicting not just collective action per se but sustained, frequent collective action over time. Current models such as the social identity model of collective action (van Zomeren et al., 2008), the social identity, relative deprivation, collective efficacy model (Grant et al., 2015), the integrative model of protest motivation (van Stekelenburg & Klandermans, 2017), and the axiological-identitary collective action model (Sabucedo et al., 2018) have advanced our understanding of the predictors of action; however, they are relatively silent on the question of sustained, durable participation beyond initial enactment. The findings here (Studies 3b and 3c) indicate that the current variables advanced in the literature may not necessarily do as well a job in predicting durable collective action.

The three studies here relied on cross-sectional, correlational designs with samples of individuals already engaged in the symbolic collective action behaviours. Future research
should employ experimental as well as prospective designs in order to test the causal relationship between subjective reasons (such as expectations of political impact) and actual engagement in symbolic and sustained action. Investigation of the reasons for not engaging in symbolic collective action is also important, especially given critiques of wearing symbols as being limited in creating actual social change (Moore, 2008). There is reason to believe that the dynamics behind inaction are not simply the converse of that of collective action (Klandermans & van Stekelenburg, 2014) and that the reasons for action versus inaction may not necessarily be the same (Stroebe et al., 2019; Stuart et al., 2018).

These limitations notwithstanding, the studies reported here add to our understanding of collective action by showing that individuals engage in symbolic action for a range of subjective reasons, the most important of which are political. These symbolic actions are taken by both disadvantaged and advantaged group members, who have similarities and differences in the structure and content of those subjective reasons. The wearing of symbols of a political cause on the self can be performed with sustained frequency in daily life, and this subsequent durability is predicted by political reasons for initiating the behaviour. This is in line with the notion of collective action as behaviour that aims to advance group interests, power, and influence toward social change.
References


https://usatoday30.usatoday.com/sports/2005-07-07-bracelets_x.htm


Notes

1. This measure was not relevant to the analysis and thus is not reported.

2. We attempted to conduct an analogous analysis of reasons for not wearing a political band in a separate sample of individuals (\(N = 51\)) who do not wear a political band. These participants rated the 15 reason items from Study 3a rephrased to the not-wearing direction. However, examination of the item responses suggested that scores were not normally distributed and a Kaiser-Meyer-Olkin measure of sampling adequacy was .53, below the recommended value of .60. Factor analysis using principal axis factoring and oblique rotation was attempted. The extraction, however, did not converge because of communalities exceeding 1, reflecting a Heywood case, and therefore no solution could be extracted.

3. The item ‘LGBT inclusion affects me directly’ was included in the measure administered to cisgender heterosexual respondents based on the reasoning that anti-LGBT exclusion can be based on either the actual or the perceived sexual orientation or gender identity of a target, and therefore may be experienced by cisgender heterosexual individuals who are perceived as being LGBT (Herek, 1989). Examination of the distribution of responses for this item indicated that some cisgender heterosexual participants did agree that LGBT inclusion affected them directly, supporting the original inclusion of this item for the cisgender heterosexual sample.
### Table 1

*Exploratory Factor Analysis of Reasons for Wearing a Political Band, Study 3a*

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>My friends wear them</td>
<td>.96</td>
<td>1.01</td>
<td>1.00</td>
<td>.89</td>
</tr>
<tr>
<td>Lots of people my age wear them</td>
<td>.90</td>
<td>.01</td>
<td>.00</td>
<td>.05</td>
</tr>
<tr>
<td>It fits with my image</td>
<td>.71</td>
<td>-.13</td>
<td>.10</td>
<td>-.03</td>
</tr>
<tr>
<td>People will see me as a caring person</td>
<td>.51</td>
<td>.17</td>
<td>.08</td>
<td>-.05</td>
</tr>
<tr>
<td>Celebrities wear them</td>
<td>.48</td>
<td>.27</td>
<td>-.02</td>
<td>-.21</td>
</tr>
</tbody>
</table>

**Factor 1: Social conformity and approval**

**Factor 2: Availability**

- It is easy to find and buy: -.18
- It is cheap: .06
- I kept hearing about it: .18

**Factor 3: Political impact and endorsement of cause**

- It raises awareness of the cause: .04
- It’s a public expression of my values: .00
- I agree with the cause: -.07

**Factor 4: Direct and indirect relevance**

- The cause affects me directly: .02
- The cause affects someone I know: -.03

Note. *N* = 74. The extraction method was principal axis factoring with an oblique rotation. Factor loadings above .40 are in bold.
Table 2

*Descriptive Statistics for Reasons for Wearing a Political Band, Study 3a (N = 74)*

<table>
<thead>
<tr>
<th>Factor</th>
<th>No. of items</th>
<th>M</th>
<th>SD</th>
<th>Internal consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social conformity and approval</td>
<td>5</td>
<td>1.08_&lt;sub&gt;a&lt;/sub&gt;</td>
<td>1.23</td>
<td>.87</td>
</tr>
<tr>
<td>Availability</td>
<td>3</td>
<td>2.27_&lt;sub&gt;b&lt;/sub&gt;</td>
<td>1.71</td>
<td>.82</td>
</tr>
<tr>
<td>Political impact and endorsement of cause</td>
<td>3</td>
<td>3.66_&lt;sub&gt;c&lt;/sub&gt;</td>
<td>1.10</td>
<td>.79</td>
</tr>
<tr>
<td>Direct and indirect relevance</td>
<td>2</td>
<td>1.63_&lt;sub&gt;ab&lt;/sub&gt;</td>
<td>1.61</td>
<td>.61</td>
</tr>
</tbody>
</table>

*Note:* Means with different subscripts differ at the $p = .05$ level according to pairwise comparisons with Bonferonni correction. Internal consistency estimates are shown as Cronbach’s $\alpha$, except for the two-item factor (Direct and indirect relevance) which is shown as Pearson’s $r$. 
### Table 3

*Exploratory Factor Analysis of Reasons by Cisgender Heterosexual Employees for Obtaining a Rainbow Lanyard, Study 3b*

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1: Social conformity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People I work closely with wear them</td>
<td>-.95</td>
<td>.00</td>
<td>.04</td>
</tr>
<tr>
<td>Many university staff wear them</td>
<td>-.87</td>
<td>.04</td>
<td>-.03</td>
</tr>
<tr>
<td>My friends in the university wear them</td>
<td>-.85</td>
<td>.08</td>
<td>-.03</td>
</tr>
<tr>
<td>University leaders wear them</td>
<td>-.63</td>
<td>-.04</td>
<td>.01</td>
</tr>
<tr>
<td><strong>Factor 2: Availability and aesthetics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is easy to use</td>
<td>.05</td>
<td>.84</td>
<td>.04</td>
</tr>
<tr>
<td>It is free</td>
<td>.04</td>
<td>.81</td>
<td>-.03</td>
</tr>
<tr>
<td>It is easy to obtain</td>
<td>.09</td>
<td>.76</td>
<td>.01</td>
</tr>
<tr>
<td>It looks good</td>
<td>-.17</td>
<td>.72</td>
<td>-.03</td>
</tr>
<tr>
<td>I like the rainbow colours</td>
<td>-.24</td>
<td>.60</td>
<td>.00</td>
</tr>
<tr>
<td><strong>Factor 3: Political impact and endorsement of cause</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It raises awareness about LGBT inclusion</td>
<td>-.15</td>
<td>-.10</td>
<td>.83</td>
</tr>
<tr>
<td>It’s a public expression of my values</td>
<td>.00</td>
<td>-.05</td>
<td>.72</td>
</tr>
<tr>
<td>I agree with LGBT inclusion</td>
<td>.11</td>
<td>.06</td>
<td>.60</td>
</tr>
</tbody>
</table>

*Note. N = 261. The extraction method was principal axis factoring with an oblique rotation. Factor loadings above .40 are in bold.*
Table 4

*Descriptive Statistics for Reasons by Cisgender Heterosexual Employees for Obtaining a Rainbow Lanyard, Study 3b (N = 261)*

<table>
<thead>
<tr>
<th>Factor</th>
<th>No. of items</th>
<th>M</th>
<th>SD</th>
<th>Internal consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social conformity</td>
<td>4</td>
<td>1.74&lt;sub&gt;a&lt;/sub&gt;</td>
<td>0.99</td>
<td>.90</td>
</tr>
<tr>
<td>Availability and aesthetics</td>
<td>5</td>
<td>2.78&lt;sub&gt;b&lt;/sub&gt;</td>
<td>1.17</td>
<td>.87</td>
</tr>
<tr>
<td>Political impact and endorsement of cause</td>
<td>3</td>
<td>4.58&lt;sub&gt;c&lt;/sub&gt;</td>
<td>0.57</td>
<td>.74</td>
</tr>
</tbody>
</table>

*Note:* Means with different subscripts differ at the \( p = .05 \) level according to pairwise comparisons with Bonferroni correction. Internal consistency estimates are shown as Cronbach’s \( \alpha \), except for the two-item factor (Aesthetics) which is shown as Pearson’s \( r \).
Table 5

Hierarchical Logistic Regression of High Versus Low-Frequency Action (Wearing a Rainbow Lanyard by Cisgender Heterosexual Employees, N = 261)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>Wald $\chi^2$</th>
<th>$p$</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-.18</td>
<td>1.41</td>
<td>0.02</td>
<td>.897</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>Anger</td>
<td>.03</td>
<td>0.16</td>
<td>0.03</td>
<td>.855</td>
<td>1.03</td>
<td>[0.75, 1.42]</td>
</tr>
<tr>
<td>Identification</td>
<td>-.13</td>
<td>0.27</td>
<td>0.23</td>
<td>.628</td>
<td>.877</td>
<td>[0.52, 1.49]</td>
</tr>
<tr>
<td>Efficacy</td>
<td>.34</td>
<td>0.30</td>
<td>1.29</td>
<td>.255</td>
<td>1.40</td>
<td>[0.78, 1.42]</td>
</tr>
<tr>
<td>Moral conviction</td>
<td>.07</td>
<td>0.23</td>
<td>0.10</td>
<td>.751</td>
<td>1.07</td>
<td>[0.69, 1.67]</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-2.22</td>
<td>1.60</td>
<td>1.91</td>
<td>.167</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>Anger</td>
<td>-.04</td>
<td>0.17</td>
<td>0.05</td>
<td>.816</td>
<td>.96</td>
<td>[0.68, 1.35]</td>
</tr>
<tr>
<td>Identification</td>
<td>-.19</td>
<td>0.28</td>
<td>0.46</td>
<td>.498</td>
<td>.83</td>
<td>[0.48, 1.43]</td>
</tr>
<tr>
<td>Efficacy</td>
<td>.19</td>
<td>0.31</td>
<td>0.37</td>
<td>.541</td>
<td>1.21</td>
<td>[0.66, 2.24]</td>
</tr>
<tr>
<td>Moral conviction</td>
<td>-.11</td>
<td>0.25</td>
<td>0.17</td>
<td>.678</td>
<td>.90</td>
<td>[0.55, 1.48]</td>
</tr>
<tr>
<td>Social conformity</td>
<td>-.17</td>
<td>0.17</td>
<td>0.99</td>
<td>.320</td>
<td>.85</td>
<td>[0.61, 1.18]</td>
</tr>
<tr>
<td>Availability and aesthetics</td>
<td>.26</td>
<td>0.15</td>
<td>3.03</td>
<td>.082</td>
<td>1.30</td>
<td>[0.97, 1.74]</td>
</tr>
<tr>
<td>Political commitment and endorsement</td>
<td>.78</td>
<td>0.29</td>
<td>7.39</td>
<td>.007</td>
<td>2.19</td>
<td>[1.25, 3.86]</td>
</tr>
</tbody>
</table>

Note: CI = confidence interval.
Table 6

*Exploratory Factor Analysis of Reasons by LGBT Employees for Obtaining a Rainbow Lanyard, Study 3c*

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1: Social conformity</th>
<th>Factor 2: Availability</th>
<th>Factor 3: Political impact</th>
<th>Factor 4: Indirect relevance and endorsement of cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Many university staff wear them</td>
<td>.94</td>
<td>.02</td>
<td>.01</td>
<td>-.04</td>
</tr>
<tr>
<td>My friends in the university wear them</td>
<td>.92</td>
<td>-.05</td>
<td>-.01</td>
<td>.05</td>
</tr>
<tr>
<td>People I work closely with wear them</td>
<td>.91</td>
<td>-.03</td>
<td>.07</td>
<td>.01</td>
</tr>
<tr>
<td>University leaders wear them</td>
<td>.75</td>
<td>.08</td>
<td>-.03</td>
<td>-.01</td>
</tr>
<tr>
<td>It is easy to obtain</td>
<td>.04</td>
<td>.91</td>
<td>-.04</td>
<td>.03</td>
</tr>
<tr>
<td>It is free</td>
<td>.00</td>
<td>.88</td>
<td>-.12</td>
<td>.09</td>
</tr>
<tr>
<td>It is easy to use</td>
<td>.01</td>
<td>.86</td>
<td>.22</td>
<td>-.08</td>
</tr>
<tr>
<td>It’s a public expression of my values</td>
<td>-.03</td>
<td>.09</td>
<td>.78</td>
<td>.02</td>
</tr>
<tr>
<td>It raises awareness about LGBT inclusion</td>
<td>.08</td>
<td>-.06</td>
<td>.78</td>
<td>.04</td>
</tr>
<tr>
<td>LGBT inclusion affects someone I know</td>
<td>-.08</td>
<td>-.01</td>
<td>.09</td>
<td>.80</td>
</tr>
<tr>
<td>I agree with LGBT inclusion</td>
<td>.08</td>
<td>.03</td>
<td>-.05</td>
<td>.56</td>
</tr>
</tbody>
</table>

*Note. N = 90. The extraction method was principal axis factoring with an oblique rotation.*

Factor loadings above .40 are in bold.
Table 7

*Descriptive Statistics for Reasons by LGBT Employees for Obtaining a Rainbow Lanyard, Study 3c (N = 90)*

<table>
<thead>
<tr>
<th>Factor</th>
<th>No. of items</th>
<th>M</th>
<th>SD</th>
<th>Internal consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social conformity</td>
<td>4</td>
<td>1.76a</td>
<td>1.06</td>
<td>.93</td>
</tr>
<tr>
<td>Availability</td>
<td>3</td>
<td>2.62b</td>
<td>1.37</td>
<td>.92</td>
</tr>
<tr>
<td>Political impact</td>
<td>2</td>
<td>4.47c</td>
<td>0.95</td>
<td>.63</td>
</tr>
<tr>
<td>Indirect relevance and endorsement of cause</td>
<td>2</td>
<td>4.66c</td>
<td>0.64</td>
<td>.46</td>
</tr>
</tbody>
</table>

*Note:* Means with different subscripts differ at the $p = .05$ level according to pairwise comparisons with Bonferonni correction. Internal consistency estimates are shown as Cronbach’s $\alpha$, except for the two-item factors (Political impact, and Indirect relevance and endorsement of cause) which are shown as Pearson’s $r$.
Table 8

Hierarchical Logistic Regression of High Versus Low-Frequency Action (Wearing a Rainbow Lanyard by LGBT Employees, N = 90)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>Wald $\chi^2$</th>
<th>$p$</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>2.73</td>
<td>2.29</td>
<td>1.41</td>
<td>.235</td>
<td>15.25</td>
<td></td>
</tr>
<tr>
<td>Anger</td>
<td>-.04</td>
<td>0.24</td>
<td>0.02</td>
<td>.882</td>
<td>0.97</td>
<td>[0.60, 1.55]</td>
</tr>
<tr>
<td>Identification</td>
<td>-.05</td>
<td>0.42</td>
<td>0.02</td>
<td>.901</td>
<td>0.95</td>
<td>[0.42, 2.15]</td>
</tr>
<tr>
<td>Efficacy</td>
<td>.43</td>
<td>0.33</td>
<td>1.76</td>
<td>.185</td>
<td>1.54</td>
<td>[0.81, 2.92]</td>
</tr>
<tr>
<td>Moral conviction</td>
<td>-.73</td>
<td>0.44</td>
<td>2.73</td>
<td>.098</td>
<td>0.48</td>
<td>[0.20, 1.15]</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>1.00</td>
<td>2.08</td>
<td>0.24</td>
<td>.628</td>
<td>2.74</td>
<td></td>
</tr>
<tr>
<td>Anger</td>
<td>-.13</td>
<td>0.26</td>
<td>0.26</td>
<td>.611</td>
<td>0.87</td>
<td>[0.52, 1.47]</td>
</tr>
<tr>
<td>Identification</td>
<td>-.02</td>
<td>0.45</td>
<td>0.00</td>
<td>.963</td>
<td>0.98</td>
<td>[0.40, 2.38]</td>
</tr>
<tr>
<td>Efficacy</td>
<td>.16</td>
<td>0.41</td>
<td>0.16</td>
<td>.691</td>
<td>1.18</td>
<td>[0.53, 2.60]</td>
</tr>
<tr>
<td>Moral conviction</td>
<td>-.95</td>
<td>0.47</td>
<td>4.07</td>
<td>.044</td>
<td>0.39</td>
<td>[0.15, 0.97]</td>
</tr>
<tr>
<td>Social conformity</td>
<td>-.06</td>
<td>0.29</td>
<td>0.04</td>
<td>.850</td>
<td>0.95</td>
<td>[0.54, 1.67]</td>
</tr>
<tr>
<td>Availability</td>
<td>.22</td>
<td>0.23</td>
<td>0.90</td>
<td>.344</td>
<td>1.24</td>
<td>[0.80, 1.93]</td>
</tr>
<tr>
<td>Political impact</td>
<td>.83</td>
<td>0.36</td>
<td>5.48</td>
<td>.019</td>
<td>2.30</td>
<td>[1.15, 4.62]</td>
</tr>
</tbody>
</table>

Note: CI = confidence interval.
Chapter 5
Conclusion

People often hear ‘action’ and they think ‘protest’. But protest sounds like you’re reacting to someone else’s agenda — they have the power, they are calling the shots, and the people scramble together a protest. Action is different. Action is what turns people power into change.

—Matthew Bolton, How to Resist

The overall aim of this programme of research was to examine the predictors of individuals’ engagement in efforts to challenge social inequality and injustice, integrating perspectives from the literatures on collective action and behaviour change. Five empirical investigations were conducted — a comprehensive systematic review with seven meta-analyses, a study of ally action in the workplace, and three studies of subjective reasons for taking symbolic action — in order to answer the overarching question: Why do people take collective action?

The aim of this final chapter is to offer broader reflections on the current programme of research and how the studies advance our knowledge of how to predict collective action. As such, the chapter is organised into the following four sections. The first section provides a summary of the five empirical studies that form part of this thesis, linking them with the literatures on collective action and on self-regulation and behaviour change. The second section presents the key contributions and strengths of the overall programme of research. The third section then identifies some conceptual and practical limitations, and outlines an agenda for future research. The fourth and final section end with concluding points on the value of predicting individuals’ engagement in behaviours that aim to challenge group-based inequality and create social change.
Summary of the Studies

Study 1: Why Do People Take Collective Action? Seven Meta-Analyses

The aim of this study was to systematically review and synthesise the literature from social psychology and allied disciplines to date on the predictors of collective action, using the broadest range of forms of action taken by the broadest range of actors. Across seven univariate meta-analyses and 27 moderator analyses, I evaluated seven key predictors of taking collective action: five constructs from the literature on intergroup relations (perceived grievance, emotion, group identification, efficacy beliefs) and two variables from the literature on self-regulation and behaviour change (intention and past behaviour).

Using a large dataset of more than 600 studies encompassing 1,319 correlations, medium-sized associations were found between collective action and intention, emotion, efficacy beliefs, group identification, moral motives, and past behavior, and a small-sized association between collective action and perceived grievance. These associations were significant for action by disadvantaged groups, advantaged groups allied with disadvantaged groups, opinion-based groups, and the general public.

In other words, this systematic review provides meta-analytic evidence that people take collective action for many reasons: (1) because they intend to, (2) because they feel discrete emotions, most notably anger, shame, sympathy, discontent, and guilt, but not fear, frustration, or anxiety, (3) because they identify with a group, especially when the group is politicised, (4) because they believe that they, as individuals or as a group, can take action, (5) because they perceive the issue in moral terms, (6) because they previously took action, especially the same action, and (7) because they perceive a grievance.

Of the seven variables, intention was the most important predictor of collective action behaviour, both in terms of bivariate effect size and in terms of robustness to the effect of moderators, a finding in line with a vast body of literature in self-regulation and behaviour change (Armitage & Conner, 2001; Fishbein & Ajzen, 2010; McEachan et al., 2016; Sheeran, 2002; Sheppard et al., 1988; Warshaw & Davis, 1985; Webb & Sheeran, 2006). Furthermore, Study 1 provided a novel contribution to the literature on intention-behavior
relations by presenting the first meta-analytic estimate of the size of the relationship between intention and behavior in the domain of collective action. This finding, based on a synthesis of primary studies with prospective designs, provides important evidence for what most collective action researchers had only previously assumed: people’s intention to take collective action significantly and positively predicts their subsequent actual behavior.

Study 1 employed a univariate meta-analytic approach to examining the relationships between collective action and seven different predictors. The strength of this approach lies in its ability to synthesise broad evidence bases across the largest possible number of studies that incorporated each specific predictor. This would not have been achievable using a multivariate meta-analytic approach, which would have restricted the eligible studies to those employing the exact same combination of predictors. As such, however, Study 1 did not account for the shared versus independent effects of the predictor variables on collective action. Study 2, therefore, shed light on this issue directly by measuring the multiple predictors within the same sample and then employing hierarchical multiple regression to assess the independent effects of each predictor within the same analysis. This allowed for an investigation of the relative contributions made by each predictor, to build on and advance the findings from Study 1.

**Study 2: Why Do Allies in the Workplace Take Collective Action?**

Study 2 was a primary investigation that aimed to predict intended and actual collective action by advantaged group members on behalf of a disadvantaged group. Using the real-world context of a workplace allies programme for lesbian, gay, bisexual, and transgender (LGBT) inclusion, I tested an expanded set of predictor variables drawn from models of collective action (Thomas et al., 2009; van Stekelenburg & Klandermans, 2013; van Zomeren et al., 2018), namely perceived grievance (perceived group disadvantage), discrete emotions (anger, guilt, and sympathy about anti-LGBT discrimination), group identification (with the allies ingroup, with the disadvantaged outgroup), efficacy beliefs (group efficacy, individual efficacy) and moral motives (moral conviction, moral obligation). Two variables from social cognition models of behaviour were assessed to determine to
what extent they predict ally action, over and above predictors from the collective action literature. These two predictors, from the theory of reasoned action (TRA; Fishbein & Ajzen, 2010), were attitude toward the behaviour and subjective norm around performing the behaviour.

Results from three hierarchical multiple regression analyses indicated that only two factors from models of collective action consistently predicted ally intention, willingness, and expectation: anger at discrimination and moral obligation to take action. Factors such as group identification, efficacy beliefs, and moral conviction did not uniquely predict ally intention, willingness, or expectation. Importantly, in line with the theory of reasoned action (Fishbein & Ajzen, 2010), Study 2 demonstrated that the TRA variables of attitude and subjective norm predicted ally intention, willingness, and expectation, over and above traditional predictors of collective action, even after controlling for the effects of work-orientated variables related to training participation. These findings thus broadly align with the meta-analytic results of Study 1, offering evidence for the principle that action, in this case intended action by allies in the workplace, can be best predicted by the integrated combination of constructs from models of collective action and variables from the literature on self-regulation and behaviour change, specifically social cognition models of behaviour.

Study 2 thus adds to our understanding of the predictors of collective action, in particular of intended action by advantaged groups in a specific context. It demonstrated that additional social cognition variables such as attitude and subjective norm, which were not examined in Study 1, have important predictive value over and above constructs from models of collective action. Studies 3a, 3b, and 3c therefore, developed the integration of the two approaches even further in two ways: by considering another set of predictors (subjective reasons for taking action) and by going beyond initial behavioural enactment and investigating the durability of collective action behaviour.

Studies 3a, 3b, and 3c: Why Do People Take Symbolic Collective Action?

The third set of investigations took a more exploratory approach to predicting action by focusing on less well-known dimensions of collective action behaviour: people’s
subjective reasons for taking self-expressive, symbolic action. Subjective reasons, which are akin to goal contents (Austin & Vancouver, 1996) and participation motives (Ingledew & Markland, 2008), refer to what individuals believe drives their behaviour, including beliefs about what they would or would not achieve by taking a particular action. Subjective reasons, in other words, concern the what for, rather than simply the why, of people’s goal-orientated behaviour (Ryan & Deci, 2017). Subjective reasons have been rarely systematically examined in collective action outside of qualitative studies (for a notable exception, see Hornsey et al., 2006).

In a series of three factor analytic investigations therefore, the subjective reasons for taking part in the relatively understudied action of wearing symbols on the body were explored in three types of collective actor groups. The first study (3a), based on an existing, previously unanalysed dataset, focused on subjective reasons for wearing political wrist bands among members of the general public. The second (3b) and third (3c) studies examined subjective reasons for wearing a rainbow lanyard by cisgender heterosexual employees (the advantaged group) and by LGBT employees (the disadvantaged group). As in Study 1 and Study 2, this series of three studies integrated a self-regulatory and behaviour change perspective by analysing the extent to which subjective reasons for initial action would predict the action’s durability, or sustained enactment over time (De Young, 1993), over and above traditional predictors from models of collective action (Thomas et al., 2009; Stekelenburg & Klandermans, 2013; van Zomeren et al., 2018).

Findings from Study 3a indicated that, consistent with broad political perspectives on collective action and echoing meta-analytic findings on perceived grievance from Study 1, reasons of a political nature were perceived to be the most important drivers for self-expressive, symbolic action. In particular, political impact and endorsement of the cause were reported to be the most important subjective reason for wearing symbols among members of the public.

This finding was further replicated and extended to symbolic action by members of both advantaged (Study 3b) and disadvantaged groups (Study 3c), who showed similarities
and differences in their subjective reasons for taking symbolic collective action. Both groups generally espoused politically orientated reasons for taking action; disadvantaged group members, but not advantaged group members however, made a differentiation between the personal significance of the cause versus the intended political impact of symbolic action, consistent with the literature on intergroup relations and differential processing of group information (Fiske, 1993; Sedikides, 1997). Moreover, advantaged group members also considered non-political reasons for engagement that had little to do with the cause itself, but were anchored on the aesthetic and visual nature of the symbolic display (delle Donne, 2010), in line with arguments that allies take symbolic action not just as a matter of intergroup solidarity but also to satisfy less political and more self-expressive motivations (Radke et al., 2020).

Finally, Studies 3b and 3c built on findings on collective action engagement in Studies 1 and 2 by examining not just subjective reasons for initial enactment of collective action but predicting sustained, frequent collective action over time. Here I applied the concept of durability of behaviour change (De Young, 1993; Werner, 2013) to subsequent symbolic action in daily life. Findings from disadvantaged and advantaged groups indicated that the current constructs advanced in models for predicting collective action — such as the variables included in the meta-analyses of Study 1 and the regression models in Study 2 — do not necessarily do as well a job in predicting durable collective action, suggesting that there are important gaps in the predictive ability of existing models of collective action, gaps which are argued to be subject to further exploration by employing perspectives from self-regulation and behaviour change.

**Contributions of the Present Programme of Research**

**Predicting Engagement in Collective Action**

The five studies that comprise this thesis extends our ability to answer the overarching question ‘Why do people take collective action?’ in five key ways, contributing to the literature on intergroup relations and the social psychology of social change on one hand, and to the literature on self-regulation and behaviour change on the other.
Predicting Action From More Factors Than Previously Theorised. First, this thesis demonstrates that a broad array of constructs are associated with collective action, including constructs that have not been included in theoretical models for predicting collective action. Previous models, for example the social identity model of collective action (SIMCA; van Zomeren et al., 2008) and the encapsulation model of social identity in collective action (EMSICA; Thomas et al., 2011), posit that individuals take action to the extent that they perceive group-based disadvantage (an injustice pathway), identify with the disadvantaged ingroup (an identity pathway), or hold beliefs about the group’s ability to create change (an efficacy pathway).

The five studies presented here, in contrast, offer converging evidence for the utility of employing constructs developed in the literature on self-regulation and behaviour change, specifically social cognition models of behaviour, in order to explain why people take collective action. These constructs include from Studies 1 and 2: intention (Triandis, 1980), willingness (Gibbons et al., 1998), expectation (Warshaw & Davis, 1985), past behaviour (Ouellette & Wood, 1998); from Study 2: attitude (Eagly & Chaiken, 1993), subjective norm (Ajzen, 1991); and from Study 3: subjective reasons (Ingledew & Markland, 2008). Findings from the five studies in this thesis indicate that conceptual models that aim to predict people’s engagement in collective action would be improved from considering a wider range of predictors, especially those from the literature on self-regulation and behaviour change. By incorporating those aforementioned predictors, such models will increase their explanatory ability, bringing the field closer to its central aim of predicting actual collective action behaviour (van Zomeren & Iyer, 2009). Conversely, by excluding those behavioural predictors, research on collective action misses the opportunity to align with the theoretical insights and practical advances in the field of behaviour change.

For example, Study 1 offers strong meta-analytic evidence for the role of intention as the most important predictor of collective action behaviour, both in terms of effect size magnitude and robustness to the moderating effects of other factors. This finding is in keeping with a rich body of literature developed in understanding behaviour change in
domains like health promotion (Armitage & Conner, 2001; Fishbein & Ajzen, 2010; McEachan et al., 2016; Sheeran, 2002; Sheppard et al., 1988; Warshaw & Davis, 1985; Webb & Sheeran, 2006).

Likewise, meta-analytic evidence from Study 1 attests to the importance of past collective action as a predictor of subsequent action, in line with theory and research on the role of past behaviour in predicting behaviour generally (Ouellette & Wood, 1998; Wood, 2017). Past behaviour has been largely absent in theoretical models of collective action, perhaps due to the traditional emphasis on the motivational drivers that mobilise individuals to take action. The findings here, particularly from Study 1, indicate that this is an important omission and that predictive models of collective action would benefit from incorporating past behaviour as a variable in its own right.

**Predicting Action From Previously Studied Factors.** This thesis also provides updated evidence that variables from existing models of collective action (perceived grievance, emotion, group identification, group efficacy beliefs, and moral motives) are indeed significantly positively associated with collective action. Findings from Studies 1 and 2 demonstrate that collective action has significant bivariate correlations with key variants of the aforementioned predictors. These include: variants of perceived grievance (distributive and procedural injustice; from Study 1), emotion (discrete emotions such as anger, shame, sympathy, discontent, and guilt, as well as dimensional affect, from Study 1; anger and sympathy, from Study 2), identification with politicised groups (from Study 1), efficacy beliefs (focused on the group and the individual; from Studies 1 and 2), and moral motives (moral conviction, moral obligation; from Studies 1 and 2). Study 2 further showed that anger at group disadvantage and moral obligation to take action are two unique predictors that account for intended action by allies.

These findings replicate and affirm the utility of these constructs which have been previously developed and advanced in the traditional literature on collective action and intergroup relations. While I argue for the value of integrating self-regulatory variables in the prediction of collective action (see previous subsection), the findings from this programme of
research indicate that the traditional constructs, such as anger at group disadvantage or moral motives, should continue to be pursued, not simply superseded in favour of self-regulatory variables. This point is most clearly demonstrated in Study 2, where both traditional constructs (anger at group disadvantage, moral obligation to take action) combined with self-regulatory variables (attitude, subjective norm) all accounted for unique variance in collective action.

**Predicting Action by Advantaged Groups.** A third key contribution of this thesis lies in its extension of our understanding of why people who are members of advantaged groups take action on behalf of the disadvantaged. Previous meta-analysis on predictors of collective action (van Zomeren et al., 2008) was limited to action by disadvantaged group members acting on behalf of their ingroup to challenge an unjust status quo. This was a key limitation in the literature given the fact that advantaged groups, or so-called allies, can and do take action to benefit disadvantaged groups (Leach et al., 2002; Radke et al., 2020), as in the case of men taking action against sexism targeting women or cisgender heterosexual employees acting as allies to LGBT people.

The current thesis is the first to provide meta-analytic evidence (Study 1) that the predictors of collective action by disadvantaged group members extend and apply for members of allied advantaged groups. This finding supports current conceptual definitions of collective action (Becker, 2012; van Zomeren & Iyer, 2009) that go beyond simply behaviours taken by members of disadvantaged groups. Furthermore, the two primary studies described here advance our ability to explain why people initiate and maintain ally action. They do so by demonstrating the utility of predictors such as attitude and subjective norm (Study 2) as well as subjective reasons, particularly reasons related to political commitment and cause endorsement (Studies 3a, 3b, and 3c). Taken together, the findings broaden the scope of existing models of collective action in two ways. First, they extend current models from solely disadvantaged groups to include advantaged groups, demonstrating that these models have greater predictive validity than previously thought. Second, the findings show that these models could include not only the traditional predictors
taken from the literature on disadvantaged group action, but also variables from self-regulation and behaviour change. Doing so opens up new questions in relation to predicting actual engagement in collective action by the advantaged group. For example, it has recently argued that advantaged group members may at times be motivated to act on behalf of the disadvantaged for self-serving reasons, such as improving their reputation and gaining popularity (Radke et al., 2020). This proposition could be tested by analysing the effect of subjective norm on ally intention and behaviour in situations where self-image concerns are made salient. Another example is the application of the self-regulatory problem of the intention-behaviour gap (i.e., that intention is translated into action only approximately one-half of the time; Sheeran & Webb, 2016) to the case of collective action by advantaged groups. If intention is the single largest predictor of collective action behaviour whether by disadvantaged or advantaged group members and yet a sizeable gap exists between intention and actual behaviour (as found in Study 1), then the next question that can be addressed is what accounts for this discrepancy in the case of ally action and importantly, what interventions can be applied to translate ally intention to actual action.

At the same time, the findings also invite more thoughtful consideration of not just the similarities but also the differences between predictors of action by disadvantaged versus advantaged groups. In Studies 3b and 3c, both types of groups reported that politically orientated reasons were important for taking action. However, members of the advantaged group, but not the disadvantaged group, considered non-political reasons for engagement that had little to do with the cause itself such as the aesthetic and emblematic aspects of the behaviour. This finding is in line with recent theoretical arguments (Radke et al., 2020) that suggest that motivations to take action among allies are not reducible to exact same factors operating for disadvantaged groups, but may incorporate other factors such as self-presentation and image management concerns. This alerts us to the value of developing theory to account for collective action by allies in its own right, using models of collective action by the disadvantaged as a starting point (and later, a useful standard for comparison),
but without unnecessarily applying and transposing these frameworks with inattention to key differences.

**Predicting a Broader Range of Forms of Collective Action.** Previous studies of collective action have placed primacy on the more contentious forms of action (e.g., protesting; van Stekelenburg & Klandermans, 2013), sometimes even equating collective action to protest behaviour, effectively excluding less contentious but equally important institutionally sanctioned behaviours such as voting and petition-signing. Other studies (e.g., van Zomeren et al., 2008), in contrast, have been less concerned about the specific form that collective action takes. That is, they paid little attention to the range of forms that collective action takes, despite the fact that there exists a vast array of behaviours that individuals take to advance group interests (Hanna et al., 2016; Ratliff & Hall, 2014; Theocharis & van Deth, 2016). These forms range from the institutionalised and normative (e.g., voting) to the non-normative (e.g., participating in blockades), from the high-cost (e.g., volunteering for an activist organisation) to the low-cost (e.g., signing a petition), and from the public (e.g., marching in the street) to the anonymous (e.g., donating money). The specific forms of collective action in the present day are so numerous that one recent review documented more than 200 different behaviours that individuals may engage in (Hanna et al., 2016).

In contrast to previous studies that equated collective action solely to protest or paid little attention to what form of collective action is taken, this thesis considered a range of collective actions and it did so in two ways. First, Study 1 employed specific form as a meta-analytic moderator of the relationship between collective action and its predictors. Second, Studies 2, 3a, 3b, and 3c used form as specific foci of investigation: voluntary training participation by allies in the workplace (Study 2) and self-expressive symbolic action in the form of wearing symbols on the body (Studies 3a, 3b, and 3c). The studies reported here are among the first to investigate these forms of collective action as outcomes to be predicted in a quantitative manner.

**Extending the Scope of Self-Regulation and Behaviour Change to Collective Action**
Finally, in addition to its contributions to advancing our understanding of the prediction of collective action, this programme of research adds to the literature on self-regulation and behaviour change. It does so by highlighting collective action, a group-based behaviour, as a relatively understudied domain in self-regulation and behaviour change. Although collective action, by definition (Becker, 2012; van Zomeren & Iyer, 2009), is taken by the individual and does not, strictly speaking, require acting in concert with a group, it is a group-based behaviour. That is, the individual is acting as a representative or on behalf of a group, behaving to improve the condition of the entire group (Wright et al., 1990). Individual action, on the other hand, is focused solely on individual concerns, not group interests.

A handful of studies have previously applied constructs such as attitude and subjective norm as predictors of collective action (Brunsting & Postmes, 2002; Kelly & Breinlinger, 1995; Louis, 2001; see Sweetman et al., 2019 for a recent exemplar from the intergroup relations literature). However, theorising and empirical research in the field of self-regulation and behaviour change have themselves rarely focused on political and group-based behaviours (Michie et al., 2014). Indeed, in a seminal review of the entire behaviour change literature from 1960 to 2012 (Davis et al., 2014), researchers identified 82 unique theories of behaviour change, with health behaviours accounting for 88% of the dataset. Political or group-based behaviours were not represented in the evidence base.

This thesis therefore represents an important contribution to the field by demonstrating that group-based action can be reliably predicted by constructs from the behaviour change literature and is marked by the same dynamics, such as the intention-behaviour gap (Sheeran & Webb, 2016) and the influence of past behaviour (Wood, 2017). The studies here thus constitute an invitation to behaviour change researchers to incorporate collective action behaviour in the scope of their work. Doing so permits novel tests of the applicability and explanatory power of traditional theories of self-regulation and behaviour change. Incorporating collective action into the scholarship of behavioural research will reap further insights that can be practically applied to promote
behaviours, such as voting and pro-equality action, that when performed by a large number of people provide social benefits beyond the individual (Rogers et al. 2018).

Towards a More Comprehensive Motivation-Volition Phase Model of Collective Action

In Chapter 2, I sketched a two-phase model of collective action that differentiated between motivational (goal-setting) and volitional (goal-striving) phases and incorporated discrete emotion, group identification, efficacy beliefs, perceived grievance, and moral motives (as distal predictors) and intention (as the focal mediator) along with past behaviour. Here I revisit this model and revise it by integrating insights from Studies 2, 3a, 3b, and 3c.

According to this revised model, people take action on behalf of groups (collective action behaviour) as a result of two hypothesised key phases representing the well-known distinction between motivation and volition (Gollwitzer, 2012). First is a deliberative phase where individuals form an intention to take action. Group members are posited to do so on the basis of various possible factors including, but not limited to, discrete emotion, group identification, efficacy beliefs, moral motives, perceived group grievances, and their subjective reasons (from Studies 3a-3c) to engage in action. This motivational constellation thus forms the basis of intention (Sheeran & Webb, 2016; van Stekelenburg et al., 2011). Attitude toward collective action as well as subjective norm surrounding collective action also serve as determinants of intention to engage in collective action over and above the basis for intention, following results from Study 2. This intention is then translated, to a certain but by no means absolute extent, into actual collective action behaviour in a second, implemental phase. By parsing collective action into intention versus actual behaviour following social cognition models of behaviour prediction and change (e.g., Ajzen, 1991), this model permits more thoughtful consideration of the problem of the gap between intentions and behaviour in collective action (from Study 1). Finally, by incorporating past behaviour in a separate pathway beyond intention (from Study 1), the model addresses an important conceptual omission in existing models of collective action behaviour, which overlook the role of past participation in predicting people’s subsequent engagement in collective action.
Figure 1

Revised Motivation-Volition Phase Model of Collective Action
Limitations and Future Research

In addition to the limitations specific to each of the five studies (discussed in their respective chapters), some key limitations that cut across the empirical work presented here should be acknowledged. The first concerns the use of multiple predictors and the tradeoff between maintaining theoretical parsimony and maximising predictive ability (Prestwich et al., 2018). Guided by the core aim of predicting actual engagement in collective action (van Zomeren & Iyer, 2009), the studies presented in this thesis attempted to predict collective action behaviour as an outcome using models with up to seven predictors. This approach is in line with previous research by scholars in the field who have devoted time and energy to building and testing predictive models with multiple predictors in order to identify the most optimal set of antecedents to taking action (van Stekelenburg & Klandermans, 2017; van Zomeren et al., 2018). This approach has led to testing an increasing number of predictors within the same design, from earlier studies that examined dual pathway models (e.g., Stürmer & Simon, 2004) to models with three pathways (e.g., Grant et al., 2015; Thomas et al., 2011; van Zomeren et al., 2008) or four pathways (e.g., Sabucedo et al., 2018; van Zomeren et al., 2018).

The addition of more predictor variables generally increases a model’s ability to explain more variance in collective action; however, some scholars argue that this approach may come at the expense of theoretical parsimony (Prestwich et al., 2018). The addition of more and more predictors, according to this view, creates models that are overfitted (Hawkins, 2004; Lever et al., 2016) and difficult to test, due to the increased number of measurement tasks or scales and larger sample sizes required (Prestwich et al., 2018).

In contrast, the theory-driven inclusion of multiple predictors in a single analysis could arguably advance the goal of theoretical parsimony. That is because this approach allows us to identify the relative importance of predictors and subsequently focus on those that uniquely explain variance in the outcome of interest (Braun & Oswald, 2011). Results from the studies included here suggest that generally, a combination of constructs from the literature on collective action and intergroup relations and variables from the literature on
self-regulation and behaviour change may offer this optimal model. This is illustrated most clearly in Study 2, where anger at group disadvantage, moral obligation to act, attitude toward the action, and subjective norm surrounding the action all uniquely accounted for variance in intended ally action. It is unclear how well this particular integrated model extends to action by disadvantaged groups or to forms of action different from participating training. Future research, therefore, needs to test this and other theory-informed combinatorial models such as in Figure 1 across various collective action settings. Such designs will advance the integration of the two literatures and further move the field closer to the goal of predicting actual collective action participation (van Zomeren & Iyer, 2009).

A second limitation pertains to the reliance, across the five studies presented here, on correlational evidence, making strong claims of causation difficult. The meta-analytic results from Study 1, for example, were based on a combination of primary studies that employed either correlational designs (where collective action and one or more of its predictors are measured) or experimental designs (where a predictor is manipulated and collective action is later measured). This limitation was addressed by way of moderator analysis, comparing studies that employed correlational versus experimental designs to determine whether this subgroup distinction made a significant difference in the relationship between collective action and its predictors. No significant moderating effect was observed. This analysis, however, like all forms of subgroup analysis, remains observational (Borenstein, 2019), and so primary studies that directly address this matter are needed.

Similarly, the two primary studies included here both relied on correlational data. In Study 2, I attempted to address this limitation in part by employing a prospective design, wherein predictors were measured at time 1 and collective action behaviour (in this case, actual training participation) was measured eleven months later at time 2. However, changes in the original plan, as well as the relatively small sample size, did not permit the drawing of strong conclusions from the longitudinal aspect of this study. Likewise, no experimental manipulations were employed in Study 3.
Future research therefore should employ prospective experimental designs, where causal constructs are manipulated at time 1 and collective action behaviour is measured at time 2. To illustrate, an experimental followup to Study 2 could be designed wherein predictors are induced: anger at anti-LGBT discrimination (e.g., using an imagined scenario; Siedlecka & Denson, 2019), moral obligation to take action is heightened (e.g., by presenting cues designed to activate moral obligation; Gorsuch & Ortberg, 1983), positive attitude toward action (e.g., by presenting persuasive information on the functionality, ease, and importance of petition-signing; Baer, 2002), and subjective norm (e.g., by presenting information on the popularity of petition-signing; Smith & Louis, 2008). Intentions to take action on behalf of the LGBT group (e.g., signing a petition for LGBT rights; Swank et al., 2013) can be assessed immediately after. A delayed post-test, involving the possibility to sign an actual petition, can then be offered a few days after as a measure of actual behaviour (Antonetti & Manika, 2017). This robust design combines an experimental manipulation and a prospective time lag, which will permit strong causal inference and provide information on how predictive models can be used to inform behaviour change interventions.

**Concluding Points**

Collective action is of significant interest to social psychologists, advocates of social justice, and the general public. Taking action to advance group interests — whether for racial equality, women’s rights, climate justice, or other important social concerns — is a widespread social phenomenon, on the increase globally, and represents a consequential behaviour for both society and the individual.

Collective action’s promise for positive change, however, can only be fulfilled if people actually take action. Therefore the prediction of people’s actual engagement in collective action is an important scientific pursuit, with practical relevance for groups, communities, and democratic society at large. This thesis integrates perspectives from intergroup relations and from self-regulation and behaviour change, to demonstrate that
predicting people's participation can be achieved by the powerful integrative combination of these two theoretical traditions.

The insights advanced in the current programme of research thus lay the foundation for a more complete understanding of why people take collective action. The contributions offered here propel us closer to the goals of transforming individual behaviours into movements and turning people power into change.
References


