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# Toward an Integrative Social Identity Model of Collective Action: A Quantitative Research Synthesis of Three Socio-Psychological Perspectives

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An integrative social identity model of collective action (SIMCA) is developed that incorporates 3 socio-psychological perspectives on collective action. Three meta-analyses synthesized a total of 182 effects of perceived *injustice*, *efficacy*, and *identity* on collective action (corresponding to these socio-psychological perspectives). Results showed that, in isolation, all 3 predictors had medium-sized (and causal) effects. Moreover, results showed the importance of social identity in predicting collective action by supporting SIMCA's key predictions that (a) affective injustice and politicized identity produced stronger effects than those of non-affective injustice and non-politicized identity; (b) identity predicted collective action against both incidental and structural disadvantages, whereas injustice and efficacy predicted collective action against incidental disadvantages better than against structural disadvantages; (c) all 3 predictors had unique medium-sized effects on collective action when controlling for between-predictor covariance; and (d) identity bridged the injustice and efficacy explanations of collective action. Results also showed more support for SIMCA than for alternative models reflecting previous attempts at theoretical integration. The authors discuss key implications for theory, practice, future research, and further integration of social and psychological perspectives on collective action.

*Keywords:* collective action, injustice, efficacy, social identity

What is it that mobilizes people to participate in social protest? This has been a key question in social science from the foundation of its various disciplines, and numerous explanations have been explored. Research has examined social movements, social groups, and experimental groups, embedded in different social contexts, and studied with different methods and measures. Although qualitative reviews of this literature are abundant (e.g., Kelly & Breinlinger, 1996; Klandermans, 1997, 2004; Marx & Wood, 1975; McPhail, 1971; Stürmer & Simon, 2004a), there is at present no quantitative research synthesis of the literature that focuses on multiple predictors of collective action and their interrelations. This is unfortunate for several reasons.

First, although the literature on this topic is large and multifaceted there is substantial scope for theoretical integration (e.g., Klandermans, 1997, 2004). Indeed, given recent calls for greater integration in this domain, a quantitative synthesis that evaluates

and integrates these theoretical advances would seem both timely and valuable. Second, a quantitative research synthesis of psychological predictors of collective action is of interest to disciplines including psychology, sociology, political science, and economics. In such a multidisciplinary arena, a key challenge is to bridge *subjective* (psychological) and *social* (structural) perspectives on when, why, and how people engage in social protest. This challenge is underlined by several recent efforts in the literature to advance our understanding of the interaction between the two (e.g., Klandermans, 1997; Simon & Klandermans, 2001). This is not just a theoretical concern—a greater understanding of the interplay between individual and social conditions that foster mobilization has important practical consequences as well.

However, in order to successfully meet this challenge we need an integrative psychological perspective that specifies the key subjective predictors of collective action as well as their interrelationships. The main aim of this quantitative research synthesis is therefore to integrate three socio-psychological perspectives on collective action that focus on subjective *injustice*, *identity*, and *efficacy* as key predictors of collective action. We first review each of these perspectives on collective action, and then propose an integrative social identity model of collective action (SIMCA) that—unlike previous attempts at theoretical integration—accounts for the relationships between the three predictors as well as their predictive effects on collective action. Second, we meta-analytically examine (a) the viability of the three perspectives in isolation, (b) the viability of a number of moderator variables suggested in the literature, and

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(c) the evaluation of, and comparisons between, SIMCA and models based on previous attempts at theoretical integration.

### Three Theoretical Perspectives on Collective Action

Collective action has been of long-standing interest to many different disciplines, including sociology, political science, economics, history, and psychology (e.g., Blumer, 1939; Davies, 1962; Davis, 1959; Gurr, 1968, 1970; McAdam, 1982; M. Olson, 1968; Smelser, 1962; Tarrow, 1998; R. H. Turner & Kilian, 1972). The starting point of many approaches to collective action is the assumption that it is a response to an *objective* state of disadvantage. This implies that one can identify specific material conditions as ulterior “causes” of collective strife (e.g., Hovland & Sears, 1940).

Although objective conditions are undoubtedly important, large-scale systematic historical analyses demonstrate that their empirical relation to collective action, popular disturbance, and mass violence is elusive and weak at best (e.g., Green, Glaser, & Rich, 1998; Tilly, Tilly, & Tilly, 1975). Perhaps as a result, over the past 3 decades or so the literature has increasingly concerned itself with the more proximal socio-psychological determinants of collective action (Klandermans, 1997). The starting assumption of these approaches is that people respond to a subjective sense of disadvantage, which can (to some extent) appear to deviate from, and hence not necessarily flow from, the “objective” physical conditions (e.g., Major, 1994; Postmes, Branscombe, Spears, & Young, 1999). Indeed, many current theories and studies of collective action make little or no attempt to consider the objective material conditions and focus almost exclusively on the social and psychological dimension of protest. It is these theories and their tests that are central to this research synthesis.

The three subjective variables that could affect collective action that have received most scholarly attention are perceived *injustice*, perceived *efficacy*, and a sense of social *identity*<sup>1</sup> (Gamson, 1992; Klandermans, 1997, 2004). Each of these constructs stems from its own distinct theoretical tradition, and these schools of thought have sometimes been portrayed as providing conflicting explanations for collective action (e.g., Finkel & Rule, 1987; Gurney & Tierney, 1982; Walker & Smith, 2002). More recently, however, some attempts at theoretical integration have been made (e.g., Kawakami & Dion, 1995; Kelly & Breinlinger, 1996; Klandermans, 1984, 1997, 2004; Mummendey, Kessler, Klink, & Mielke, 1999; Stürmer & Simon, 2004a). Crucially, these different attempts make different predictions, yet none of them considers all the relationships between these three factors and their predictive effects on collective action, and none therefore succeeds in being truly integrative across the theoretical spectrum. To this end, we propose SIMCA as a new and integrative perspective on collective action, which proposes that social identity is central to collective action because it directly motivates collective action and simultaneously bridges the injustice and efficacy explanations of collective action. Before outlining our model, however, we first discuss the three dominant perspectives on collective action in isolation.

#### *Explaining Collective Action Through Perceived Injustice*

Following the traditional assumption that (objective) deprivation propels collective action, the emphasis in research and theory

gradually shifted from studying the consequences of objective inequality to studying the consequences of its subjective experience. This development was initiated by observations that objective deprivation alone did not predict collective action particularly well. Stouffer, Suchman, DeVinney, Star, and Williams (1949) introduced the concept of relative deprivation to explain why objective deprivation does not always predict peoples’ dissatisfactions with their lots. This research examined, among other things, why military police who were given slow promotions were nevertheless more satisfied than air corpsmen who were given rapid promotions. Research such as this led to the development of relative deprivation theory (RDT; e.g., Crosby, 1976, 1982; Folger, 1986, 1987; Merton & Kitt, 1950; Pettigrew, 1967; Runciman, 1966; Stouffer et al., 1949; Walker & Smith, 2002), which focused on the subjective experience of unjust disadvantage. Based on ideas derived, among others, from social comparison theory (Festinger, 1954), RDT proposes that feelings of deprivation develop on the basis of social comparisons with specific others. In line with this, Stouffer et al. (1949) concluded that the military police did not compare themselves with air corpsmen and hence did not feel deprived. According to RDT, it is only when social comparisons result in a subjective sense of injustice that collective action to redress the injustice is likely to occur.

The notion that the subjective experience of inequality carries greater weight than its objective, material origins is echoed in more recent developments in the social-psychological literature on fairness judgments, which has explored how people respond to distributive and procedural fairness (Adams, 1965; Leventhal, 1980; Lind & Tyler, 1988; Miller, 2000; Thibault & Walker, 1975; Tyler, Boeckmann, Smith, & Huo, 1997; Van den Bos & Lind, 2002). For example, authorities’ use of fair procedures typically diminishes individuals’ negative reactions to unfavorable outcomes (e.g., Folger, 1977). Moreover, theory and research have suggested that social inequality in distributions can be perceived as fair (e.g., Jost & Major, 2001; Major, 1994).

RDT developed in two important ways in the last decades. The first development has been to clarify what social comparisons foster collective action. H. J. Smith and Ortiz (2002) found meta-analytic evidence for Runciman’s (1966) proposal that collective action is likely when people experience *fraternal*, or *group-based*, deprivation (see also Cook, Crosby, & Hennigan, 1977; Dion, 1986; Dubé-Simard & Guimond, 1986; Guimond & Dubé-Simard, 1983). There is a conceptual “fit” between the intergroup comparisons on which group-based deprivation is based and the intergroup nature of collective action (Postmes et al., 1999). Indeed, egoistic deprivation (also referred to as individual-based deprivation, and based on interpersonal comparisons) is less likely to

<sup>1</sup> We refer to *identity* as an explanation of collective action in terms of peoples’ subjective sense of identification with a group. We chose the term *identity* (and not *identification*) to be in sync with the terms *injustice* and *efficacy* as explanations of collective action. Whereas *identification* refers to the subjective affiliation with the group, *social identity* refers to the socially shared understandings of what it means to be a group member, and this typically includes stereotypes of in- and out-groups in relation to each other as well as appreciations of the relative status of those groups. The core distinction is therefore that *identification* reflects the individuals’ relationship to the group, whereas *social identity* reflects what is consensually held to be the social reality of the group (Postmes & Jetten, 2006).

result in collective action and even has clear negative effects on the individual's well-being (Koomen & Fränkel, 1992; Walker & Mann, 1987; Walker & Pettigrew, 1984).

The second important development in RDT was to explore what made deprivation such a powerful motivator. In particular, researchers have examined whether cognitive or affective components of group-based deprivation affected collective action (e.g., Guimond & Dubé-Simard, 1983; Tyler & Smith, 1998). Originally, RDT proposed that collective actions are propelled by profound feelings of injustice. However, empirical work in the 1980s and 1990s began to focus more on peoples' perceptions or cognitive interpretations of inequality. Despite obvious connections, the two are nonetheless fundamentally different—the cold knowledge of being less well off than someone else may sometimes elicit feelings of injustice, but at other times such inequality may not be questioned, or even perceived as just and legitimate. In a meta-analytic test of the traditional assumptions of RDT, H. J. Smith and Ortiz (2002) found that whereas perceptions of group-based deprivation predicted collective action, feelings of deprivation were a more powerful predictor.

This finding resonates with recent theorizing in the area of intergroup or group-based emotions (Mackie & Smith, 2002; E. R. Smith, 1993), which, in line with appraisal theories of emotion (e.g., Frijda, 1986; Lazarus, 1991, 2001; Roseman, 2001; Scherer, 1984, 2001; C. A. Smith & Ellsworth, 1985; for an overview, see Scherer, Schorr, & Johnstone, 2001), proposes that group-based emotions such as anger form a conceptual bridge between group-based appraisal and specific action tendencies (e.g., Mackie & Smith, 2002; E. R. Smith, 1993; Van Zomeren, Spears, Fischer, & Leach, 2004; Yzerbyt, Dumont, Wigboldus, & Gordijn, 2003). In contrast to the classic view on emotion in collective action (as individual and dysfunctional responses; e.g., Le Bon, 1895/1995; Oberschall, 1973), this contemporary view of group-based emotions assumes that they are functional responses to situations or events that are relevant to one's group. More specific to collective action, when group-based inequality or deprivation is perceived as unjust, group-based emotions like anger should motivate collective action because they invoke specific action tendencies to confront those responsible in order to redress their unfair deprivation. In other words, such feelings of group-based anger are states of action readiness (Frijda, 1986).

The current research synthesis therefore examines (a) whether peoples' subjective experience of injustice in terms of group-based inequality or deprivation predicts collective action and (b) whether the affective experience of injustice produces stronger effect sizes than those of the non-affective (cognitive) perception of injustice. Moreover, the synthesis addresses the issue of causality in this relationship. As such, we go beyond H. J. Smith and Ortiz's (2002) meta-analysis of RDT that pertained to relative deprivation but not to more general perceptions and experiences of injustice. Moreover, the purpose of this research synthesis is not just to test predictions about peoples' experiences of injustice derived from RDT but, more generally, to integrate this perspective with two other major perspectives on collective action, based in efficacy and identity concerns, to form a more comprehensive and complete account of collective action.

### *Explaining Collective Action Through Perceived Efficacy*

RDT came under attack in the seventies by scholars arguing that a subjective sense of injustice is not sufficient for collective action to occur (Finkel & Rule, 1987; Gurney & Tierney, 1982; McPhail, 1971; for reviews, see Ferree & Miller, 1985; Klandermans, 1989; Walker & Smith, 2002). Building on the argument that social inequality and discrimination exist in almost all societies and are therefore too pervasive and general to predict collective action, resource mobilization theorists proposed that the mobilization of resources by quasi-political organizations is key to moving people to action (e.g., McCarthy & Zald, 1977; see also Gamson, 1975; Oberschall, 1973; Tilly, 1978). Resource mobilization theory assumes that social protest constitutes a set of rational collective actions by groups to advance their goals and interests, pressurizing those in power to submit to the demands of the disadvantaged. In this perspective, collective action is a strategic and political enterprise rather than a passionate response to felt injustices.

Research on resource mobilization focused accordingly on the formation and organization of political institutions, in particular of social movement organizations (SMOs). This focus on objective, structural factors carried with it an assumption, sometimes implicit, that collective action was based on decisions made by rational individual actors. In this line of thought, individual decisions to engage in collective action are based on choices to minimize personal losses and maximize personal gains (M. Olson, 1968). Ironically, despite this emphasis on the individual and his or her decisions, the concern with rather abstract and instrumental decision-making processes meant that research attention drifted away from the consideration of individuals and their subjective motives for collective action. Instead, resource mobilization research focused largely on more objective social-structural variables that were hypothesized to serve as anchors or inputs for those decisions.

Klandermans's (1984) integration of elements of sociological and social-psychological theories of collective action marked a return to combining a consideration of subjective and socio-structural predictors of collective action. Based on M. Olson's (1968) theory of collective action and theories of the attitude-behavior link (Ajzen, 1991; Ajzen & Fishbein, 1977; Fishbein & Ajzen, 1975, Klandermans (1984) proposed that individual motives for collective action could be measured by subjective value-expectancy products. The expectancy component was a particularly important element as it contained peoples' subjective expectation of whether collective action would be effective in achieving its goal(s). Klandermans's (1984) contribution, although criticized for being too individualistic (Schrager, 1985), succeeded in bringing back the subjective element in instrumental explanations of collective action.<sup>2</sup>

In line with this reorientation, efficacy has become one of the key instrumental explanations of collective action—the idea being that people engage in collective action if people believe this will make it more likely that relevant goals are achieved. Consistent

<sup>2</sup> Theoretically, individual cost-benefit calculation motives should predict collective action independent of social identity motives (e.g., Simon et al., 1998; Stürmer & Simon, 2004a). We therefore expect the former to—if anything—increase the explained variance in collective action independent of the SIMCA variables.

with one of the developments in RDT, more recent thinking about efficacy has begun to explore the group as a basis of the efficacy construct. Mummendey et al. (1999) proposed that *group efficacy* is the more proximal predictor of collective action, defined as the shared belief that one's group can resolve its grievances through unified effort (see also Bandura, 1995, 1997; Folger, 1986, 1987). Their analysis of group efficacy echoes certain properties of the classic sociological construct of *agency*, which similarly refers to beliefs that individual actions have the potential to shape, and thus change, the social structure (e.g., Gergen, 1999). In other words, group efficacy gives people a sense of collective power or strength on the basis of which they believe themselves capable of transforming the situation and destiny of their group (Drury & Reicher, 2005; Reicher, 1996, 2001). This means that the stronger the subjective sense of the group's efficacy, the more likely people are to engage in collective action (e.g., Hornsey et al., 2006; Kelly & Breinlinger, 1996; Mummendey et al., 1999).

In line with these accumulated ideas about efficacy, the current research synthesis examines whether there is an empirical basis for the proposition that the subjective experience of group efficacy facilitates collective action. Moreover, the synthesis addresses the issue of causality in this relationship. However, the main purpose of this research synthesis is to reconcile the efficacy perspective with the injustice perspective by using the concept of *social identity* as a conceptual bridge between the two.

### *Explaining Collective Action Through Social Identity*

In the seventies, a new social-psychological perspective on collective action emerged in the form of social identity theory (SIT; Tajfel, 1978; Tajfel & Turner, 1979). SIT proposes that people generally strive for and benefit from positive social identities associated with their membership groups. This raises the question of why people would identify with groups that reflect negatively on them (e.g., disadvantaged or low status groups). SIT's answer is that three socio-structural variables affect how people manage their identity concerns: The permeability of group boundaries, the legitimacy of intergroup relations, and their stability. Permeable group boundaries allow disadvantaged group members to leave their group for a higher status group, whereas impermeable group boundaries offer no such "exit" (see also Hirschmann, 1970). If exit is impossible, people have to make the most of their situations. They can do so in multiple ways—and one of them is to engage in social competition, of which collective action is the clearest expression.

According to SIT, when members of a lower status group perceive the intergroup status differential to be illegitimate and unstable, they are more likely to identify with their group and engage in collective action to change the intergroup status differential (Ellemers, 1993; Tajfel, 1978; Turner & Brown, 1978). Thus, people need to perceive that there are cognitive alternatives to the status quo before social identification with their group leads them to mobilize them for collective action. Therefore SIT predicts that identification with the disadvantaged group is the proximal predictor of collective action (Ellemers, 1993; Kelly & Breinlinger, 1996; Mummendey et al., 1999; Tajfel, 1978).<sup>3</sup> Note here that the illegitimacy and instability of intergroup status differences are not necessarily identical to perceptions of group-based injustice and efficacy. Whereas the former refer to the more distal

socio-structural factors that SIT predicts will influence social identities, the latter two refer to more proximal psychological explanations of collective action (see also Mummendey et al., 1999).

Reicher and colleagues in particular have applied these ideas to collective action (e.g., Drury & Reicher, 1999, 2000, 2005; Reicher, 1996, 2001), in their argument that social identity serves to mobilize people for social change. Simon, Stürmer, and colleagues (e.g., Simon et al., 1998; for a review, see Stürmer & Simon, 2004a) took this argument one step further in the context of SMOs by proposing that identification with an SMO is even more predictive of collective action than is identification with the disadvantaged group because the former is a *politicized* identity. As Simon and Klandermans (2001) defined the concept, people "evinced politicized collective identity to the extent that they engage as self-conscious group members in a power struggle on behalf of their group knowing that it is the more inclusive societal context in which this struggle has to be fought out" (p. 319). In other words, people can develop more specific "activist" identities through engaging in collective action. Not unlike the political focus of resource mobilization theory, politicized identity focuses on the political struggle for power with the authorities in the public domain (see also Kelly & Breinlinger, 1996), which allows the political to become a (personal) identity project (see Klein, Spears, & Reicher, 2007) that transforms individuals' identity from one defined by social circumstance into a more agentic one (Drury & Reicher, 1999). Politicized identity more specifically connects people to the structural plight of the disadvantaged group, resulting in an "inner obligation" to participate in social movement activities (Stürmer, 2000; Stürmer & Simon, 2004a).

In sum, the current research synthesis examines whether social identity predicts collective action. Moreover, the synthesis addresses the issue of causality in this relationship. We also take into account the nature of that identity in order to investigate whether politicized identities are more strongly bound up with collective action than are non-politicized identities.

### Aims of the Quantitative Research Synthesis

The overarching purpose of the research synthesis is to ascertain the magnitude and stability of the effect of each of the three predictors of collective action identified above. Within, we focus on three key issues. First, we examine whether there is evidence for the *causal* assumption that injustice, efficacy, and identity predict collective action. Second, we examine evidence for *moderator* variables of the effect sizes (e.g., affective injustice should produce stronger effects than does non-affective injustice, and politicized identity should produce stronger effects than does non-politicized identity). Third, the viability of SIMCA and alternative

<sup>3</sup> This relationship between group identification and collective action is only predicted to exist under the conditions of relative impermeability, illegitimacy, and instability (Tajfel, 1978) because these are the conditions when collective action becomes viable as an identity management strategy. Because those conditions were met in virtually all the studies included in this meta-analysis, we could not test this aspect of the predictions made by SIT (but see Ellemers, 1993; Bettencourt, Charlton, Dorr, & Hume, 2001). However, it did allow us to test the predictions of SIT regarding the effects of social identification more effectively.

models based on previous attempts at theoretical integration are tested, compared, and evaluated.

### *The Issue of Causality*

Most primary studies on collective action have employed correlational designs. For example, a typical study on collective action would have participants answer a questionnaire pertaining to collective action and the predictor(s) of interest (e.g., Walker & Mann, 1987). Another common way of conducting research is to gather cross-sectional survey data among members of a social movement (e.g., Stürmer, 2000). Correlational designs of this kind, however, do not allow causal inferences, and hence this research is unable to demonstrate that injustice, identity, or efficacy variables predict collective action. However, studies that, for example, systematically vary (i.e., manipulate) injustice, identity, or efficacy variables and measure collective action enable a test of the viability of the assumed causal direction.

Few studies, however, have experimentally manipulated injustice, identity, and efficacy. Although injustice variables are perhaps more easily manipulated (e.g., Grant & Brown, 1995; Kawakami & Dion, 1993; Wright, Taylor, & Moghaddam, 1990), efficacy (e.g., Van Zomeren, 2006, Study 1), and particularly identity variables (e.g., Simon et al., 1998, Study 2) are harder to manipulate. One reason for this is that social identification with a particular group is often already too established to manipulate successfully. Therefore, some have used the salience of a particular social identity as a proxy for manipulating social identification with the group (e.g., Simon et al., 1998, Study 2). Thus, although the majority of the research on collective action does not allow causal inferences, a subset of studies enabled us to examine whether there is support for the often-assumed causal direction, flowing from injustice, efficacy, and identity to collective action.

Two points are relevant to this issue. First, some scholars have argued that the reverse causal sequence (collective action predicting injustice, efficacy, or identity) is equally likely to be found as the often-assumed sequence (e.g., Klandermans, Sabucedo, Rodriguez, & De Weerd, 2002; Reicher, 1996). If this assertion is correct, then it follows that the magnitude of effects in cross-sectional studies should be very similar to effect sizes in research that does allow for causal inferences. That is, even if reverse causality is in some cases a significant occurrence, the magnitude of these reverse effects is not such that they would entirely invalidate causal inferences drawn from the observations of cross-sectional data. In contrast, if reverse causal effects are stronger, this should be reflected in stronger effect sizes in cross-sectional studies. Second, a more practical use of manipulations of variables like injustice, efficacy, and identity is that they can facilitate or impede real-world collective action. Indeed, according to Gamson (1992), people are mobilized through a so-called "collective action frame," consisting of the three variables under study here (injustice, identity, and efficacy). Thus, the causality question is not only a theoretical or statistical issue—it is also very much tied to issues of practical application and intervention.

### *Moderator Variables*

By defining appropriate moderator variables, meta-analyses can test which variables produce systematic and psychologically

meaningful variation in effect sizes and explain any heterogeneity of effects. After examining whether the three predictors predict collective action in isolation, and whether the issue of causality can be resolved, we examine moderator variables of the predicted isolated effects of injustice, identity, and efficacy on collective action. The choice of moderator variables was informed by four theoretically relevant questions that are current and recurrent issues in this literature.

### *Type of Injustice*

An important theoretical question is whether feelings of injustice (*affective injustice*) predict collective action better than injustice based on perceptions and cognitions alone (*non-affective injustice*). As noted, H. J. Smith and Ortiz (2002) showed that feelings of relative deprivation were more strongly related to collective behavior than were perceptions of relative deprivation. Theoretically, the role of (group-based) emotions in collective action relates to both the injustice and identity explanations of collective action, together with attempts at theoretical integration between the two (Kawakami & Dion, 1995; Kelly & Breinlinger, 1996; Mummendey et al., 1999; H. J. Smith & Spears, 1996). Indeed, intergroup emotion theory (Mackie & Smith, 2002; E. R. Smith, 1993) suggests that group-based appraisals or interpretations of an intergroup event (e.g., injustice) determine specific group-based emotions (e.g., anger or resentment) that, in turn, predict specific action tendencies (e.g., wanting to confront those responsible; see Mackie, Devos, & Smith, 2000; Van Zomeren et al., 2004; Yzerbyt et al., 2003). Moreover, both notions of group-based deprivation and group-based emotion are theoretically based in social identity. Specifically, when people identify with their group, or social identity is otherwise salient, they are more likely to make intergroup comparisons and hence perceive and emotionally experience injustice on the basis of their social identity. Thus, we examine whether, within our sample of effect sizes between injustice and collective action, affective injustice produces stronger effect sizes than non-affective injustice.

### *Type of Identity*

Another important theoretical question is whether *politicized* identity results in stronger effect sizes than non-politicized identity (see Simon & Klandermans, 2001; Stürmer & Simon, 2004a). Indeed, politicized identity (i.e., identification with an SMO) has been found relatively more important in predicting collective action than non-politicized identity (i.e., identification with the disadvantaged group in general; Kelly & Breinlinger, 1995; Simon et al., 1998; for an overview, see Stürmer & Simon, 2004a). For example, although one's identity as a woman should be reasonably predictive of willingness to undertake collective action on behalf of women, identification with the feminist movement should be an even better predictor (see also Hercus, 1999). Similarly, identification with gay men in general should predict collective action to a lesser extent than does identification with the gay movement (e.g., Simon et al., 1998). This is consistent with the idea that politicized identity goes hand in hand with a stronger internal obligation to participate in social movement activities (Stürmer & Simon, 2004a).

This differentiation between two types of identity relates conceptually to the importance of identity development and transformation (Drury & Reicher, 1999; Reicher, 1996, 2001; Simon & Klandermans, 2001). It confirms, indirectly, that the politicization of social identity allows the political to become a personal identity project (see Klein et al., 2007), transforming individuals' identity from one that is defined by social circumstance into a more agentic one (Drury & Reicher, 1999). Therefore, we examine whether, within our identity sample, the effects of politicized identity on collective action are stronger than those of non-politicized identity.

### *Type of Disadvantage*

In the literature, there is considerable variability in the type of disadvantage that collective action seeks to redress. Group members protest to reduce structural disadvantages in society (e.g., discrimination against homosexuals, women, ethnic minorities) but also to repair incidental disadvantages (e.g., a newly imposed tax, a raise in tuition fees for students, the building of a plant in one's neighborhood, or a windfarm in one's "backyard"). *Structural* disadvantage includes structural low group status or discrimination based on membership of a social group or category (e.g., Jost & Hunyady, 2002; Major, 1994; Sidanius & Pratto, 1999; Sidanius, Pratto, Van Laar, & Levin, 2004; Tajfel, 1978). In contrast, *incidental* disadvantage revolves around issue-based or situation-based disadvantages (e.g., "suddenly imposed grievances"; Walsh, 1988; see also Klandermans, 1997).

We propose that the key difference between incidental and structural disadvantage is that in response to incidental disadvantage people need to develop a shared social identity that revolves around their common fate (i.e., the situation or issue), whereas in the case of structural disadvantage such an identity is usually a historical or socio-structural given. Put differently, for incidental disadvantage a sense of social identity needs to be *formed* (i.e., the group's social identity emerges on the basis of certain objectives), whereas for structural disadvantage social identity is already established by the structural disadvantage and hence needs to be *transformed* (i.e., the group's social identity needs to be changed from something established toward "becoming" something else). This basic difference has at least three important implications.<sup>4</sup>

First, this difference affects the relationship between injustice and collective action. Unlike incidental disadvantage, structural disadvantage can be psychologically harmful to the self (Major, 1994; Schmitt & Branscombe, 2002) because structural disadvantage is bound to be more defining in terms of self-evaluation than is incidental disadvantage. As elaborated by SIT, people have a number of strategies available, other than collective action, which may help them cope with such psychological harm. These strategies are particularly likely to be used in contexts in which people do not consider alternatives to the status quo (e.g., when structural intergroup status differences are stable and legitimate). For example, people may accept or even internalize their disadvantage, or use social creativity strategies (e.g., Derks, Van Laar, & Ellemers, 2006; Jost & Hunyady, 2002; Major, 1994; Schmitt, Branscombe, & Postmes, 2003; Sidanius & Pratto, 1999). As a result, the sense of injustice associated with structural disadvantages should less easily result in collective action than is the case for incidental disadvantages.

Another reason why perceived injustice is likely to play a more important role in collective action to redress incidental disadvantages is that the appraised injustice associated with incidental disadvantages is, by definition, a response to a more novel situation. Given that group-based emotions are theorized to be functional responses to subjectively appraised situations, the potential for injustice-based emotions like anger to arise and affect collective action is stronger for incidental than for structural disadvantages. Indeed, to the extent that structural disadvantages reflect large, stable, and systemic effects, this will affect how situations are embedded and appraised (e.g., system justification; Jost & Hunyady, 2002; Jost & Major, 2001). This makes it less likely that the injustice of structural disadvantages arouses similar action-oriented group-based emotions like anger. This line of thought again implies that the relationship between the experience of injustice and collective action should be weaker for structural disadvantage than for incidental disadvantage.

The structural–incidental distinction also has a key implication for the relationship between efficacy and collective action. That is, structural disadvantage is harder to change than incidental disadvantage for at least two reasons. First, identity transformation for the structurally disadvantaged is bound to encounter more resistance than is identity formation for the incidentally disadvantaged, because structurally disadvantaged groups are engaged in a struggle with a more powerful (or high status) out-group that typically resists efforts for social change. Indeed, high status groups are often motivated to maintain and enhance group-based hierarchies (e.g., Jost & Major, 2001; Sidanius & Pratto, 1999; Sidanius et al., 2004). Second, the means or resources available for combating structural disadvantage are typically fewer than for combating incidental disadvantage (Klandermans, 1997). For both of these reasons, the relationship between efficacy and collective action should be weaker for structural disadvantage than for incidental disadvantage.

Yet, we suggest that a third key implication of the structural–incidental disadvantage distinction is that social identity should be a crucial predictor of collective action to redress both incidental disadvantage and structural disadvantage. For structural disadvantage, social identity connects individuals to the existing social structure, and it predicts collective action as a strategy to deal with a threat to the (social) self when there is an illegitimate and unstable intergroup status differential (Ellemers, 1993; Tajfel, 1978; Turner & Brown, 1978). In addition, SMOs play an important role in redressing structural disadvantages because they allow people to identify with an organization more specifically constituted to contest this structure and challenge the status quo (which relates to the politicization of identity; Simon & Klandermans, 2001; Stürmer & Simon, 2004a). However, we suggest that social identity is also important to collective action against incidental disadvantages where SMOs are unlikely to pre-exist. Specifically, individuals can form a social identity in response to a particular situation or event (e.g., feelings of being unfairly treated by the government). When people come to realize that they belong to this newly formed group, their group-based perceptions (J. C. Turner,

<sup>4</sup> This variable can be conceptualized as both a continuous variable (i.e., interval) and a categorical variable. In fact, in the analyses to come we coded for this variable in both ways.

Hogg, Oakes, Reicher, & Wetherell, 1987) and group-based emotions and action tendencies (e.g., Mackie & Smith, 2002; E. R. Smith, 1993; Yzerbyt et al., 2003) are an integral part of this newly formed social identity. Thus, identity should predict collective action against both structural and incidental disadvantage.

### *Type of Measurement of Collective Action*

Researchers often must rely on proximate measures of collective action. It is hard to quantify collective action, and therefore researchers often resort to controlled and somewhat artificial response environments (survey methodologies or lab settings, see also Postmes & Spears, 1998). In such studies, researchers generally rely on proxies for collective action such as *attitudes* toward collective action (e.g., being supportive of collective action) and *intentions* or *action tendencies* to engage in collective action (e.g., willingness to engage in collective action; "I would engage in collective action"), rather than self-reports of past behavior (e.g., number of petitions signed last year), or, even better, actual behavioral measures (e.g., signing a petition now). Moreover, when researchers do use a combination of these measures they sometimes collapse them into one scale, obscuring the similarities and/or differences between attitudinal, intentional, and behavioral measures.

One exception is a study by De Weerd and Klandermans (1999) in which intentions to participate in demonstrations and blockades among Dutch farmers were found to be good predictors of their actual participation 2 years later (see also Fox & Schofield, 1989; Klandermans et al., 2002). This finding resonates with classic attitude-behavior models in psychology (e.g., Ajzen & Fishbein, 1977; Fishbein & Ajzen, 1975) that suggest that although attitudes and behavior are related to each other, this relationship is mediated by intentions. Indeed, whereas attitudes can be relatively idealistic, intentions tend to take more account of practical limitations and opportunities. However, compared with intentions, behavior is subject to interference from additional random or systematic factors (e.g., Gollwitzer & Sheeran, 2006). Hence, effect sizes between predictors and collective action are likely to become weaker the more directly measures tap actual behavior, and more generally behavioral measures should produce weaker effect sizes than do non-behavioral measures. However, it is also important to show that the three predictors still affect behavioral measures of collective action. Therefore, all three meta-analyses examine whether effect sizes decrease the more indices of collective action tap actual behavior, whether behavioral measures produce weaker effect sizes than non-behavioral measures, and whether behavioral measures still result in sizeable effects.

### *Toward Further Theoretical Integration: SIMCA*

The current research synthesis proposes an integrative psychological perspective on collective action that, while grounded in the various insights from social-identity-based approaches, is new in key respects. Specifically, the relative prominence of social identity in our line of thought fits with our review of the literature and our predictions that social identity (a) underlies group-based emotions that bridge the gap between the perception of injustice and collective action, (b) can politicize and hence motivate collective action by channeling broad social identities into more specific

protest organizations, and (c) should be predictive of both more structural and more incidental types of collective disadvantage (unlike the injustice and efficacy explanations, which are predicted to be more important to incidental disadvantages). The research synthesis therefore examines the size of the relationships between identity and injustice, identity and efficacy, and injustice and efficacy, and it examines how these variables uniquely predict collective action in conjunction. Below we first describe different lines of integrative thought that have emerged in the literature over the past 2 decades or so. Note that we aim to make the distinctions between these general lines of thought explicit because this will help theorists and researchers to be more explicit in their conceptualization in future work on collective action. We subsequently present SIMCA as a new psychological perspective on collective action.

### *Three Types of Disagreement Between Existing Integrative Models*

Previous attempts at theoretical integration suggest at least three types of disagreement between different models. First, models differ about the usefulness of all three predictors. For example, some models do not explicitly include efficacy as a predictor of collective action. Kawakami and Dion (1995) were among the first to attempt an integration of relative deprivation and social identity explanations for collective action. Based on self-categorization theory principles (J. C. Turner et al., 1987), they proposed that a salient social identity (rather than personal identity) would lead people to make intergroup comparisons (rather than interpersonal comparisons) resulting in group-based deprivation (rather than individual-based deprivation). Social identity (salience) thus determines the extent to which injustice is perceived and felt (H. J. Smith & Spears, 1996; H. J. Smith, Spears, & Oyen, 1994). This suggests that the identity and injustice explanations of collective action should covary (which is echoed in Mummendey et al.'s, 1999, and Van Zomeren et al.'s, 2004, models described later). Moreover, this suggests that identity affects collective action through perceived injustice, which implies that the effect of identity should be reduced when injustice is taken into account.

Other models do not explicitly expect injustice to predict collective action (e.g., Simon et al., 1998). This line of thought, associated with the dual pathway model of social movement participation developed by Simon, Stürmer, and colleagues (Simon et al., 1998; Stürmer & Simon, 2004a), suggests that injustice is often a constant rather than a variable (e.g., when members of a social movement all experience a sense of injustice), and therefore injustice is unlikely to be able to predict collective action. The model predicts that (politicized) identity and instrumental cost-benefit motivations (including efficacy) for collective action operate relatively independently of each other. Theoretically, these two motives for collective action operate at different levels (i.e., the individual and group levels), which implies little covariance between the identity and efficacy explanations of collective action. Thus, different models disagree about the usefulness of all three predictors.

A second type of disagreement between models refers to those models that explicitly include all three predictors but disagree about their specific interrelationships. Although most models agree on the positive link between identity and injustice (e.g., Kawakami



& Dion, 1995; Mummendey et al., 1999; Van Zomeren et al., 2004), there is little consensus on the link between identity and efficacy (e.g., Mummendey et al., 1999; Simon et al., 1998) and between injustice and efficacy (e.g., Folger, 1987; Mackie et al., 2000; Van Zomeren et al., 2004).

Indeed, in contrast to Simon et al.'s (1998) model, Mummendey et al. (1999) predicted that the identity and efficacy explanations covary. This model predicts that group identification enhances group efficacy beliefs, which in turn predict collective action. Thus, Mummendey et al.'s (1999) model implies that the direct effect of identification on collective action should be reduced when efficacy is taken into account. This fits with the line of thought developed by Reicher and colleagues (e.g., Reicher, 1984, 1996, 2001; see also Cocking & Drury, 2004; Drury & Reicher, 1999, 2000, 2005), who have suggested that social identity refers to the process through which people construe (or negotiate) their understandings of the self and the social world. On the basis of these understandings, people do not just form ideas of who they are, they also form ideas of what they can (or want to) become. Identity is therefore not just about "being"—it is also about "becoming" (see also Spears, Jetten, & Doosje, 2001). Identification with the group should thus be understood as a strategy—an attempt by group members to empower themselves and their in-group in order to realize their collective ideals, and to strive for social change (Drury & Reicher, 2005).

There are even larger differences among perspectives on the relation between injustice and efficacy as predictors of collective action. There are at least three different hypotheses. First, relative deprivation theorists like Folger (1986, 1987) have argued that although stronger efficacy may result in stronger feelings of relative deprivation, too much faith in collective goal achievement decreases a focus on such feelings of injustice because people believe that social change will follow either with or without their participation (see also Ellemers, 2002). This argument implies a negative association between injustice and efficacy. Second, intergroup emotion theorists have argued, in contrast, that stronger group efficacy beliefs allow people to experience their sense of injustice more strongly because they have more power to redress this injustice (e.g., Mackie, Devos, & Smith, 2000). This argument implies a positive association between the injustice and efficacy variables. Finally, Mummendey et al.'s (1999) and Van Zomeren et al.'s (2004) models predict that injustice and efficacy are relatively independent explanations of collective action, which implies little covariance between the injustice and efficacy variables.

The final type of disagreement between models refers to whether all three factors uniquely predict collective action. For example, Mummendey et al.'s (1999) model predicts that identity should no longer uniquely predict collective action once injustice and efficacy are taken into account (see also Kawakami & Dion, 1995; Van Zomeren et al., 2004). Simon et al.'s (1998) model, on the other hand, predicts that identity uniquely predicts collective action. Given these mixed predictions in the literature, we propose SIMCA as a new integrative psychological perspective on collective action.

### *SIMCA as a New Psychological Perspective on Collective Action*

According to SIT, social identity is a key predictor of collective action because it explains and predicts intergroup behavior. How-

ever, in recent research on social identity in the self-categorization tradition, the emphasis has shifted more broadly to the way in which social identities function as systems of shared social meaning (Swaab, Postmes, Van Beest, & Spears, 2007; Turner, 1991). That is, social identity allows for group-based perceptions and emotions that are shared with fellow group members. Thus, social identities should have a direct influence on collective action but also influence the way in which group members appraise and feel about a particular situation or social structure (e.g., perceptions or feelings of injustice and efficacy). Indeed, social identities are formed, mobilized, or transformed *inter alia* to gear group members up for action. It follows that social identity should not have just a direct impact on collective action but also an indirect effect through informing group-based perceptions or feelings of injustice and group efficacy.

Specifically, SIMCA proposes that social identity predicts collective action directly as well as indirectly through the injustice and efficacy variables. Social identity underlies injustice because it provides the basis for the group-based experience of injustice. Hence, it can positively buffer group members against the negative consequences of low group status (e.g., Branscombe, Schmitt, & Harvey, 1999; Postmes & Branscombe, 2002) and emotionally gear them up for collective action (E. R. Smith, 1993; Van Zomeren et al., 2004). Moreover, social identity underlies efficacy because a stronger sense of identity empowers relatively powerless individuals (e.g., Drury & Reicher, 2005). In other words, social identity affects group members' experiences of both group-based injustice and efficacy, which prefigures SIMCA's prediction that social identity functions as a conceptual bridge between the two.

Given these considerations, SIMCA proposes that identity, injustice, and efficacy all provide unique explanations of collective action and that social identity bridges the injustice and efficacy explanations of collective action in so far as it predicts perceptions of both. Thus, social identity is not only a unique predictor of collective action, but it also functions as the psychological connection between injustice and efficacy. Because SIMCA predicts that social identity forms a bridge between perceptions of injustice and efficacy, the model thus predicts that the latter variables do not share any other variance than the variance predicted by shared identity.

SIMCA differs from previous integrative models (e.g., Kawakami & Dion, 1995; Mummendey et al., 1999; Simon et al., 1998; Van Zomeren et al., 2004), because it is more inclusive, parsimonious, and specific. It allows for a unique effect of identity, for example, because it acknowledges the possibility that social identities can politicize and hence have unique effects on collective action. Moreover, it allows for a unique effect of injustice because it acknowledges the possibility that the distinct group-based affective experience of injustice motivates collective action. Finally, it predicts that social identity facilitates the subjective experience of both injustice and efficacy. Thus, SIMCA marries different approaches that make different specific predictions about these relationships by integrating them into a coherent model with a key role for social identity.

SIMCA also differs from broad, flexible models of collective action (e.g., Klandermans, 1997; Simon & Klandermans, 2001) because of the specificity of its predictions. More general models of collective action typically focus on the dynamic and flexible process of mobilization (including, e.g., objective or macro-level

variables) and typically attempt to transcend levels of analysis by considering psychological processes in their political, social, and historical context. This breadth and comprehensiveness, however, can be a weakness when it comes to explicating the relationships among various psychological factors involved. Although SIMCA shares the assumption of those dynamic and flexible models that the social and historical contexts are important factors in the mobilization process (e.g., Klandermans, 1997; see also Klandermans & Oegema, 1987; Oegema & Klandermans, 1994; see also Haslam, 2004), SIMCA focuses on the more specific predictions concerning the three psychological predictors of collective action and their interrelationships (that we assume to psychologically mediate the influence of objective factors). Given the absence of complete consensus in the literature, we believe that a test of these specific predictions is a key step forward, not least for the future development of broader and dynamic models of collective action.

### *Summary and Hypotheses*

The present quantitative research synthesis examines the viability of injustice, efficacy, and identity as explanations of collective action in three separate meta-analyses. Furthermore, it examines the issues of causality, moderator variables, and further theoretical integration (in terms of the validity of SIMCA compared with other integrative models of collective action). Taken together, we propose SIMCA as an encompassing and integrative account of collective action, predicting that (a) all three predictors (causally) affect collective action; (b) affective injustice should produce stronger effect sizes than those of non-affective injustice, and politicized identity should produce stronger effect sizes than those of non-politicized identity; (c) identity should predict both incidental and structural disadvantage, whereas injustice and efficacy should predict structural disadvantage less well than incidental disadvantage; (d) all three predictors should have unique effects when controlling for interpredictor covariance; and (e) social identity bridges the injustice and efficacy explanations of collective action.

### *Method*

We used a meta-analytic approach for three, interrelated, reasons. First, a meta-analysis can assess the strength of the relationship between a predictor and a criterion variable across different measures, methods, and contexts. Thus, a meta-analysis is suited to answer the question whether there is evidence for the idea that injustice, efficacy, and identity are good predictors of collective action despite differences across studies. Second, a meta-analysis allows an objective examination of the average size of an effect as well as its variability and consistency. It also allows for the systematic comparison of the effects of different independent variables, taking their inter-relationships into account. Third, a meta-analysis can test for the existence of moderator variables. As such it allows for the testing of specific theoretical hypotheses.

### *Operational Definitions and Criteria for Inclusion*

We used a set of straightforward but strict criteria for inclusion of studies in the meta-analysis. Studies had to quantify the association between one or more predictor and collective action. This

excludes qualitative studies of collective action (e.g., Drury & Reicher, 2000; Reicher, 1984; Stott & Drury, 2000). This also excludes studies that focus only on the antecedents of, for example, relative deprivation (e.g., Folger, 1986). Studies also had to report individual-level subjective (rather than objective; e.g., Geschwender & Geschwender, 1973; Gurr, 1968, 1970) measures of peoples' sense of injustice, efficacy, and identity. Below we specify more detailed criteria for inclusion for each variable.

### *Collective Action*

Collective action was the dependent variable in all included studies. Wright et al.'s (1990) often-cited definition of collective action is "A group member engages in collective action any time that he or she is acting as a representative of the group and where the action is directed at improving the conditions of the group as a whole" (p. 995). The first part of this definition emphasizes that individual group members can act on behalf of their group as well as that such actions constitute collective action (see also J. C. Turner et al., 1987). The second part identifies a broad array of behaviors as "collective action." However, in the present meta-analysis we restricted collective action to expressions of protest against collective disadvantage because this is the specific focus of our analysis.

Operationally, therefore, *collective action* in this article refers to the attitudinal support for protest as well as the protest intentions or behaviors of members of a social group that are directed at removing the perceived underlying causes of the group's disadvantage or problem (e.g., signing a petition, participating in a demonstration). This implies that, for example, we excluded studies in which general action tendencies rather than specific action tendencies were measured (e.g., Mackie et al., 2000) as well as studies that measured a type of collective behavior that did not fit the definition (e.g., measures of intergroup bias or differentiation, Ellemers, Wilke, & Van Knippenberg, 1993; or support for affirmative action,<sup>5</sup> Tougas & Veilleux, 1988).

### *Injustice*

Injustice is generally aroused by perceptions of unfair treatment or outcomes. In this meta-analysis, feelings of injustice tend to be based on subjective perceptions of group-based inequity (i.e., some inequality or disadvantage that is perceived as illegitimate). Studies of objective inequality were not included in the meta-analysis. Although many different operationalizations of injustice can be found, theoretically their relationship with collective action should be similar. The non-affective measures of injustice in our sample included perceived unfairness of procedures, perceived undeservingness of collective disadvantage, and perceived collective mistreatment (e.g., group-based discrimination). Measures of the affective experience of injustice included dissatisfaction, fraternal resentment, and group-based anger. Thus, the operational definition of injustice was an umbrella concept that includes measures of perceptions and feelings of procedural and distributive fairness as well as relative deprivation. Typical examples of measures of

<sup>5</sup> Although important in its own right, support for affirmative action is not a good indicator of collective action because it does not involve the notion of protest.

injustice are “I think the way we are treated by [out-group] is unfair,” and “I feel angry because . . . .”

### *Efficacy*

Conceptually, efficacy refers to a sense of control, influence, strength, and effectiveness to change a group-related problem. Operationally, we included measures of political and group efficacy (e.g., Fox & Schofield, 1989; Mummendey et al., 1999). We excluded measures of cost-benefit calculations such as the social, reward, and collective motives as proposed by Klandermans (1984, 1997) because these motives are measured as value-expectancy products and thus only partially capture the efficacy variable of interest. Typical examples of measures of efficacy are “To what extent do you think that this [collective action] will increase chances of the government changing their plans?” and “I think that together we can change [the group-related problem].”

### *Identity*

Social identity is traditionally defined as “that part of an individual’s self-concept which derives from his [or her] knowledge of his [or her] membership of a social group (or groups) together with the value and emotional significance attached to that membership” (Tajfel, 1978, p. 63). In line with more recent operational conceptualizations of social identification (Cameron, 2004; Ellemers, Kortekaas, & Ouwerkerk, 1999; Jackson, 2002; Jackson & Smith, 1999), this meta-analysis focuses on two related components of identification: the cognitive centrality of group membership (i.e., the salience or importance of group membership) and the affective ties that people feel with their group (i.e., a sense of psychological attachment, commitment, or connection, also referred to as identification). Theoretically, those two components refer to separate but nonetheless closely related aspects of social identification. Cognitive centrality is most explored within self-categorization theory (i.e., in its analysis of the consequences of social identity salience; see J. C. Turner, 1985; J. C. Turner et al., 1987), and identification has become more central in work on SIT (where the emphasis tends to be on measures of identification and affective commitment to the group, see Ellemers, Kortekaas, & Ouwerkerk, 1999). In many measures of group identification, these two facets are combined (and indeed, covariation is usually very high; see Cameron, 2004). Measures typically include items loading on affective commitment: “I identify with/feel connected to/feel strong ties with [group X]” and/or items loading on self-categorization: “I see myself as/define myself as a member of [group X].” The studies we included used measures of politicized identity (i.e., identification with a social movement, or as an activist) as well as measures of non-politicized identity (i.e., identification with the disadvantaged group).

### *Literature Search*

As a first step, we conducted a literature search with multiple databases (e.g., the PsychINFO, SOCIndex, and Web of Science databases, until June 2007) by using combinations of the keywords *collective action*, *(social) protest*, *injustice*, *unfairness*, *(relative) deprivation*, *agency*, *efficacy*, *instrumentality*, *identity*, *identification*, and *solidarity*. In addition, we contacted researchers known to

have conducted published or unpublished studies on the topic of collective action. We systematically searched programs of major international conferences to include recent unpublished work and checked the reference lists of the included articles until no new articles were found. Furthermore, we sent requests for relevant studies via the mailing lists of major European (EAESP) and American (SPSP) professional social psychology organizations.

All articles retrieved were filtered on the basis of the inclusion criteria detailed above. In total, 182 independent samples met the criteria for inclusion (65 for injustice, 53 for efficacy, and 64 for identity). From this, 245 effect sizes were coded. There are more effect sizes than independent samples because many studies included more than one independent variable or dependent variable of interest (e.g., affective and non-affective measures of injustice within one sample; measures of politicized or non-politicized identity within one sample; intentions and behavioral measures of collective action within one sample). For each of the analyses, the effect sizes were treated in such a fashion that independence assumptions were not violated (see details below). In terms of participant numbers, the total sample size for injustice was  $N = 15,855$ ; for efficacy  $N = 12,758$ ; and for identity  $N = 10,051$ . Average sample size per effect size was  $n = 244$ ,  $n = 241$ , and  $n = 157$ , respectively.<sup>6</sup>

### *Coding of Moderator Variables*

A detailed coding book was developed. Below we provide details of the exact operationalization of the variables. Two coders independently read the articles and rated characteristics and moderator variables (some categorical, some at interval level). For the nine categorical moderator variables, overall intercoder agreement was 97.53%. Disagreements were solved through discussion. For the interval moderator variables, intraclass correlations were calculated (see below), and coder ratings were aggregated. The correlations between the moderators are reported in Table 6.

### *Non-Substantive Moderator Variables*

#### *Age*

When the mean age of a sample was reported, this was entered into the database. When age was not reported but population information was provided, we estimated the mean age (e.g., 20 in the case of college students). When such information was not reported, it was recorded as a missing value.

#### *Gender Composition*

When the gender composition of a sample was reported, we coded whether this was a female-only sample, a mixed sample, or a male-only sample. When this information was not reported, it was recorded as a missing value.

<sup>6</sup> When omitting the large Roefs (2003) study, average  $N$ s per study for injustice and efficacy were 192 and 177, respectively, with  $SD$ s of 203 and 149, respectively. For identity, the average  $N$  per study was 157 with an  $SD$  of 95.

### Type of Method

Instructions for coders were to answer the question “Which method was used in this study?” Coders could differentiate between laboratory experiments (defined by random assignment to experimental conditions), survey studies (defined by the absence of random assignment and by the reality of collective disadvantage), scenario studies (defined by the absence of random assignment and by the “imagined” reality of collective disadvantage), and field studies (defined by the absence of random assignment and by the collection of data during a protest event). Categories were collapsed to differentiate between experimental studies (involving random assignment to conditions) and non-experimental studies (not involving random assignment to conditions).<sup>7</sup>

### Substantive Moderator Variables

#### Causality

We coded whether studies allowed causal inferences to be drawn (i.e., when the predictor was manipulated or when the predictor predicted collective action over time) or did not allow such inferences. This variable is somewhat different from the type of method variable because there are experiments in which we extracted an effect size from a correlation (because the manipulated variable was not the variable of interest for the effect size). This variable is thus more specific as to whether causal inferences can be drawn for each effect size, which makes it possible to examine the causality issue.

#### Type of Injustice

Coders answered the question “Is injustice measured in this study as feelings/emotions, as perceptions/cognitions, or both?” They thus rated whether injustice was measured with affective measures, non-affective measures, or a combination of both; this allowed for an examination of SIMCA’s prediction on the predictive power of group-based emotion as a conceptual bridge between perceived injustice and collective action.

#### Type of Identity

Coders answered the question “Does the measure of identification [used in this study] refer to a disadvantaged group or a social movement?” They thus rated whether the social identity was non-politicized or politicized, allowing for a test of SIMCA’s prediction about the superior predictive power of politicized identity compared with that of non-politicized identity.

#### Type of Disadvantage

Coders were also asked the question “Is this group incidentally disadvantaged or structurally disadvantaged?” They rated whether the nature of a group’s disadvantage was more incidental (i.e., more issue-, situation-, or event-based) or more structural (i.e., more embedded in the social structure). Coders also rated the extent to which collective disadvantage was structural on a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*very much*; see also Footnote 3). For the interval moderator variable, the intraclass correlations were .87 for the injustice sample, .86 for the efficacy

sample, and .90 for the identity sample. These reliabilities can be considered good (see Orwin, 1983). Therefore, we aggregated the ratings of the two coders. This allowed an examination of SIMCA’s prediction that identity (but not injustice and efficacy) predicts both types of disadvantage equally well.

We further wanted to differentiate the type of disadvantage from the type of group (Deaux, Reid, Mizrahi, & Ethier, 1995). There are some parallels between Deaux et al.’s (1995) typology of groups and the structural–incidental distinction, but Deaux’s typology is more fine-grained. Thus, we asked coders to rate whether the identity under investigation was a vocation (e.g., students, farmers, nurses, factory workers), a stigmatized identity (e.g., gay men, women, the elderly), a political affiliation (e.g., members of peace or social movements), or a nationality/ethnicity (e.g., immigrants, ethnic minorities).<sup>8</sup> There is some overlap between these different types of groups and the nature of the disadvantage categories above: politicized, stigmatized, and national/ethnic groups tend to be more structurally disadvantaged because their disadvantage is based in their established group membership rather than on situations or events that are associated with their group (which is often the case for vocation groups).<sup>9</sup> Nonetheless, SIMCA predicts that it is the extent to which disadvantage is structural (and not the descriptive typology of their group per se) that decreases the predictive power of injustice and efficacy (but not identity).

<sup>7</sup> We were interested in whether laboratory experiments, through their presumably stronger internal validity than other types of methods, would result in stronger effect sizes than other types of methods. Because the majority of studies were either laboratory experiments or survey studies, we decided to include scenario and field studies in the same category as survey studies (i.e., non-laboratory experiments).

<sup>8</sup> Deaux et al. (1995) also proposed a category of groups based on interpersonal bonds. However, none of the groups studied could be classified as belonging to this category.

<sup>9</sup> Coders were also asked to rate whether groups were self-chosen and group boundaries were permeable. Incidental disadvantage often occurs on the basis of group membership that is relatively fixed (e.g., residents in a neighborhood may discover that a windfarm is planned to be built in their backyard, or students may be confronted with having to pay higher tuition fees). Structural disadvantage is also based on fixed group memberships (e.g., being a woman), but, in contrast, people can choose to join a social movement (e.g., a feminist movement). Whether an identity is chosen or not is an important distinction from the perspective of SIT, also because permeability between group boundaries is virtually zero in the case of fixed groups (Ellemers, Kourtekaas, & Ouwerkerk, 1999). This distinction adds a further dimension to the Deaux et al. (1995) categorization—one cannot perhaps choose one’s ethnicity (hence intergroup boundaries are impermeable), but one can choose to become a member of a civil rights group. Coders rated these variables of choice and permeability on a 5-point Likert-type scale by answering the questions “To what extent have people chosen themselves for this group membership?” (identity choice) and “To what extent are people able to leave their group?” (permeability). The intraclass correlations were .76 and .68 for the injustice sample, .72 and .70 for the efficacy sample, and .67 and .65 for the identity sample, respectively. These reliabilities can be considered reasonably good. Therefore, we aggregated the ratings of the two coders. Random effects analysis, however, did not show support for the moderating role of identity choice: for injustice,  $\beta = -.05, p > .69$ ; for efficacy,  $\beta = -.05, p > .70$ ; and for identity,  $\beta = .05, p > .68$ . Moreover, random effects analysis did not show support for the moderating role of permeability: for injustice,  $\beta = .11, p > .40$ ; for efficacy,  $\beta = .07, p > .61$ ; and for identity,  $\beta = .01, p > .92$ .

### *Type of Measure of Collective Action*

Coders rated whether attitudes, intentions, behaviors, or a mixture of one or more of these measures regarding collective action was measured. The intentions category consisted of intentions as well as action tendencies. The behavior category consisted of actual behavior as well as self-reported past behavior. This allowed an examination of the predictions that effect sizes should decrease the more the measure approximates actual behavior, that behavioral measures should produce weaker effects than those of non-behavioral measures, and that behavioral measures should still be empirically greater than zero.

### *Statistical Methods*

As a measure of effect size, we decided to use the correlation coefficient  $r$ . The reason for this is that a large proportion of research in the sample was correlational. When different statistics than  $r$  were reported (e.g.,  $\chi^2$ ,  $t$ , or  $F$  statistics), they were converted to  $r$  with the formulas provided by Rosenthal (1994). According to Cohen (1988), effect sizes of .10 are small, .30 are medium, and .50 are large. We used a random effects model analysis that is recommended when studies are heterogeneous (Lipsey & Wilson, 2001; Rosenthal, 1994). This analysis assumes, unlike fixed effects model analysis, that variance around the mean effect size cannot be completely explained by potential moderators due to the heterogeneity of the sample of studies. It is therefore a more conservative test of our hypotheses than is fixed effects model analysis. Weighted averages of the effect sizes were computed on the basis of Fisher  $Z$ -transformed correlations ( $Zr$ ) by using the inverse of the variance as weights (Lipsey & Wilson, 2001).

When insufficient statistical information was reported to compute  $r$ , we used as exact information as possible to estimate the effect size. When researchers reported, for example, that " $F < 2$ " for a non-significant effect, we based the effect size estimate on this information. In two cases, no other information than that the effect was non-significant was reported, and in these two cases, we conservatively assigned an effect size of zero. Because including or excluding these two cases in the analyses did not affect the results, we decided to retain them in the analyses.

Each independent sample was treated as an independent data point. When multiple effect sizes could be computed for one sample, we pooled these effect sizes to one average  $r$  to avoid statistical interdependence. However, when multiple effect sizes were available that corresponded to different levels of moderator variables that we coded for, we separated these effects out for those particular analyses that allowed it. It is for this reason that the total number of effect sizes is larger than the number of effect sizes for independent samples. It should be noted that this method ensures that each effect size estimate was based on a different (sub-)sample, and hence all analyses were conducted on statistically independent data. The effect sizes can be found in the Appendixes.

Mean effect sizes as well as tests for moderation were computed by using David Wilson's macros for SPSS (<http://mason.gmu.edu/~dwilsonb/ma.html>). Reliability for mean effect sizes was established through calculation of confidence intervals as well as Stouffer's  $Z$ . Variation in effect sizes was examined with the  $Q_w$  statistic (i.e., an index of within-group variance or homogeneity). Effects of potential moderator variables were examined by com-

puting analyses of variance providing estimates of between-group variance ( $Q_B$ ) for the categorical moderator variables or by using weighted regression analysis providing estimates of the strength of the relationship between the moderator and the effect size ( $\beta$ ) for the interval moderator variables. The latter allows for multivariate regression analyses in which potential confounds (such as non-substantive variables like age or type of method) can be statistically controlled for.

## Results

### *Independent Effects of Identity, Injustice, and Efficacy on Collective Action*

As can be seen in Table 1, random effects analysis showed that mean effect sizes of all three predictors differed significantly from zero, ranging from .34 to .38.<sup>10</sup> According to Cohen's (1988) guidelines, these effects are of medium size (for comparison purposes, the equivalent  $d$ s range from 0.72 to 0.83). Descriptively, therefore, injustice, efficacy, and identity all have equally strong relationships with collective action. However, we have synthesized these effects independently of each other and hence conclusions about their unique predictive strengths cannot be drawn without assuming that the three predictors are uncorrelated.<sup>11</sup>

The distribution of the effect sizes for all three predictors was, as expected and as can be seen in Figures 1A–1C, highly heterogeneous: For injustice, effects ranged from moderately negative ( $r = -.28$ ) to strongly positive ( $r = .73$ ). It should be noted, however, that the negative effects were relatively isolated events. For efficacy, effects ranged from essentially zero ( $r = -.03$ ) to strongly positive ( $r = .80$ ). For identity, effects were in a similar range ( $r = -.23$  to  $r = .82$ , with the negative effect isolated). As can be seen in Table 1, the significance of the  $Q_w$  statistic for all three samples confirms that the samples are highly heterogeneous. The existence of this much heterogeneity is testament to the diversity of the literature in terms of its methods, measures, par-

<sup>10</sup> The file-drawer problem (e.g., Lipsey & Wilson, 2001) does not appear to be an issue for these results. First, the fail-safe  $N$  (Orwin, 1983; Rosenthal, 1979) for all three predictor samples suggests that many more independent samples showing null effects are needed before mean effect sizes are reduced to small effects ( $r = .10$ ; Cohen, 1988): For injustice, 163 additional samples are needed; 128 are needed for efficacy and 180 for identity. In order to reduce mean effect sizes closer to zero ( $r = .01$ ), 2,210 additional samples are needed for injustice; 1,749 are needed for efficacy and 2,368 for identity. It is very unlikely that such an extreme underrepresentation of unpublished studies finding null effects between the three predictors and collective action exists. Moreover, as can be seen in Figures 1A–1C, the funnel graphs for each meta-analysis show roughly funnel-shaped distributions of effect sizes around the mean, which is consistent with the conclusion that these are reliable estimates.

<sup>11</sup> Potential problems concerned disproportionately influential studies due to large sample size as well as statistical outliers. We therefore capped one exceptionally large study (Roefs, 2003) and trimmed outliers to statistically acceptable values in the analyses. There were two outliers in the injustice sample (Putman & Klandermans, 2003; Van Zomeren & Spears, 2007b), four in the efficacy sample (Blader, 2007, Study 1, Study 2; Van Zomeren, 2006, Study 3.2; Van Zomeren, Scheepers, & Spears, 2007), and three in the identity sample (Blader et al., 2007, Study 2; Lindly & Nario-Redmond, 2004; Putman & Klandermans, 2003).

Table 1  
Summary of Effect Sizes for Injustice, Efficacy, Identity, and Collective Action

Sample	<i>r</i>	<i>SD</i>	95% CI	<i>Z</i>	<i>p</i>	<i>k</i>	<i>Q<sub>w</sub></i>	<i>p</i>
Injustice								
All studies	.35	.20	.30, .39	13.77	.0000	65	541.19	< .0001
Subset	.37	.25	.28, .45	7.66	.0000	27	194.00	< .0001
Efficacy								
All studies	.34	.19	.29, .39	13.05	.0000	53	365.78	< .0001
Subset	.35	.24	.27, .43	7.73	.0000	27	170.51	< .0001
Identity								
All studies	.38	.20	.33, .42	14.93	.0000	64	411.07	< .0001
Subset	.34	.16	.28, .39	10.53	.0000	27	80.12	< .0001

Note. Mean effects and confidence limits listed in this table have been transformed back to the *r* metric from the *z*-transformed estimates obtained in these analyses. *r* = correlation coefficient representing the mean effect size; 95% CI = the 95% confidence limits of *r*; *SD* = weighted standard deviation of the mean effect size; *Z* = *z* test for the mean effect sizes; *p* = probability of *z* test; *k* = number of samples associated with the mean effect size; *Q<sub>w</sub>* = within-group heterogeneity; *p* = probability of *Q<sub>w</sub>* test.

participant samples, and social contexts, and it is consistent with the use of a random effects approach for the analyses. Moreover, it suggests that there is substantial scope for moderator variables to explain variance.

### The Issue of Causality

As noted, the vast majority of the studies in the meta-analyses conceptualized collective action as the criterion variable, and injustice, efficacy, or identity as the predictor variable(s). In doing so, they assumed a causal relationship. Because we coded whether causal inferences could be made for each effect size, we could compare the average effect sizes of studies that allow causal inferences and studies that do not.

Results showed that there were no significant differences between effect sizes in studies that allowed causal inferences versus those that did not. In the injustice sample, there was virtually no difference between the two:  $Q_B(1) = 0.01, p > .92$  (for causal research,  $r = .37, p < .001$ ; and for non-causal research,  $r = .36, p < .001$ ). There was no difference in the efficacy sample either,  $Q_B(1) = 0.01, p > .93$  (for causal research,  $r = .36, p < .001$ ; for non-causal research,  $r = .36, p < .001$ ). In the identity sample, there was a slight but non-significant tendency for effects to be somewhat smaller in the research that allowed causal inferences:  $Q_B(1) = 2.22, p > .13$  (for causal research,  $r = .30, p < .001$ ; and for non-causal research,  $r = .41, p < .001$ ).

Results thus suggest consistent support across the three variables for the causal sequence that is generally assumed. The effect size of these causal relations is equivalent to that found in non-causal research. This suggests that even if reverse causality can, in some cases, be a significant occurrence, the magnitude of these reverse effects is not such that they would entirely invalidate causal inferences drawn from the observations of cross-sectional data. Across the board, therefore, there is strong support for the assumption that identity, injustice, and efficacy predict collective action.

### Moderator Variables

In our examination of moderator variables, we first examined whether non-substantive variables (like the age and sex composition of participant samples) moderated effect sizes. If such moderation would occur, these variables can pose a threat to interpretations of possible effects of more substantive (i.e., theoretically informed) moderator variables. However, our reasoning was that if the predicted effect of a substantive moderator variable holds when controlling for (potentially confounding) non-substantive moderator variables, then we can be more certain that such moderations are indeed substantive.

### Non-Substantive Moderator Variables

*Age.* For the injustice sample, mean age was 28.71 years ( $SD = 10.22$ ). For the efficacy sample, mean age was 30.72 years ( $SD = 12.16$ ), and for the identity sample, mean age was 33.25 years ( $SD = 13.15$ ). Weighted multivariate regression analysis showed only one significant effect of age across the three meta-analyses: Age negatively predicted the effect size between injustice and collective action ( $\beta = -.42, p < .01$ ), but it did not predict the effect size between efficacy and collective action ( $\beta = -.22, p > .15$ ), nor did it predict the effect size between identity and collective action ( $\beta = -.12, p > .37$ ). In sum, only for the injustice–collective action link did age matter: Younger people appeared to act more strongly on injustice than did older people. We therefore included age as a statistical control in our examination of substantive moderators of the injustice–collective action relationship.

*Sex composition.* Random effects analyses showed no significant effects of sex composition across the three meta-analyses. Sex composition of the samples did not affect the effect size between injustice and collective action,  $Q_B(2) = 0.89, p > .64$ ; nor did it affect the effect size between efficacy and collective action,  $Q_B(2) = 3.50, p > .17$ ; or the effect size between identity and collective action,  $Q_B(2) = 1.61, p > .44$ . In sum, sex composition did not moderate effect sizes.

*Type of method.* Random effects analyses showed significant effects of method for the injustice sample,  $Q_B(1) = 12.88, p < .001$ ; and for the efficacy sample,  $Q_B(1) = 8.25, p < .01$ ; but an effect for the identity sample that only approached significance,  $Q_B(1) = 3.40, p < .07$ . The experimental studies in the injustice sample produced stronger effects ( $r = .50, p < .001$ ) than did the non-experimental research ( $r = .31, p < .001$ ). For efficacy, there was a similar difference with experimental studies having larger effects ( $r = .49, p < .001$ ) than those of non-experimental studies ( $r = .31, p < .001$ ). For identity, experimental studies ( $r = .47, p < .001$ ) produced only somewhat stronger effect sizes than those of non-experimental studies ( $r = .36, p < .001$ ). Thus, type of method moderated effect sizes in two out of the three samples. However, given the null effects for the causality variable, these moderating effects are likely to be non-substantive. Therefore we statistically controlled for type of method in the analysis of substantive moderators below.

### Substantive Moderator Variables

*Type of injustice.* As can be seen in Table 2, random effects analysis shows a significant between-class difference,  $Q_B(2) =$

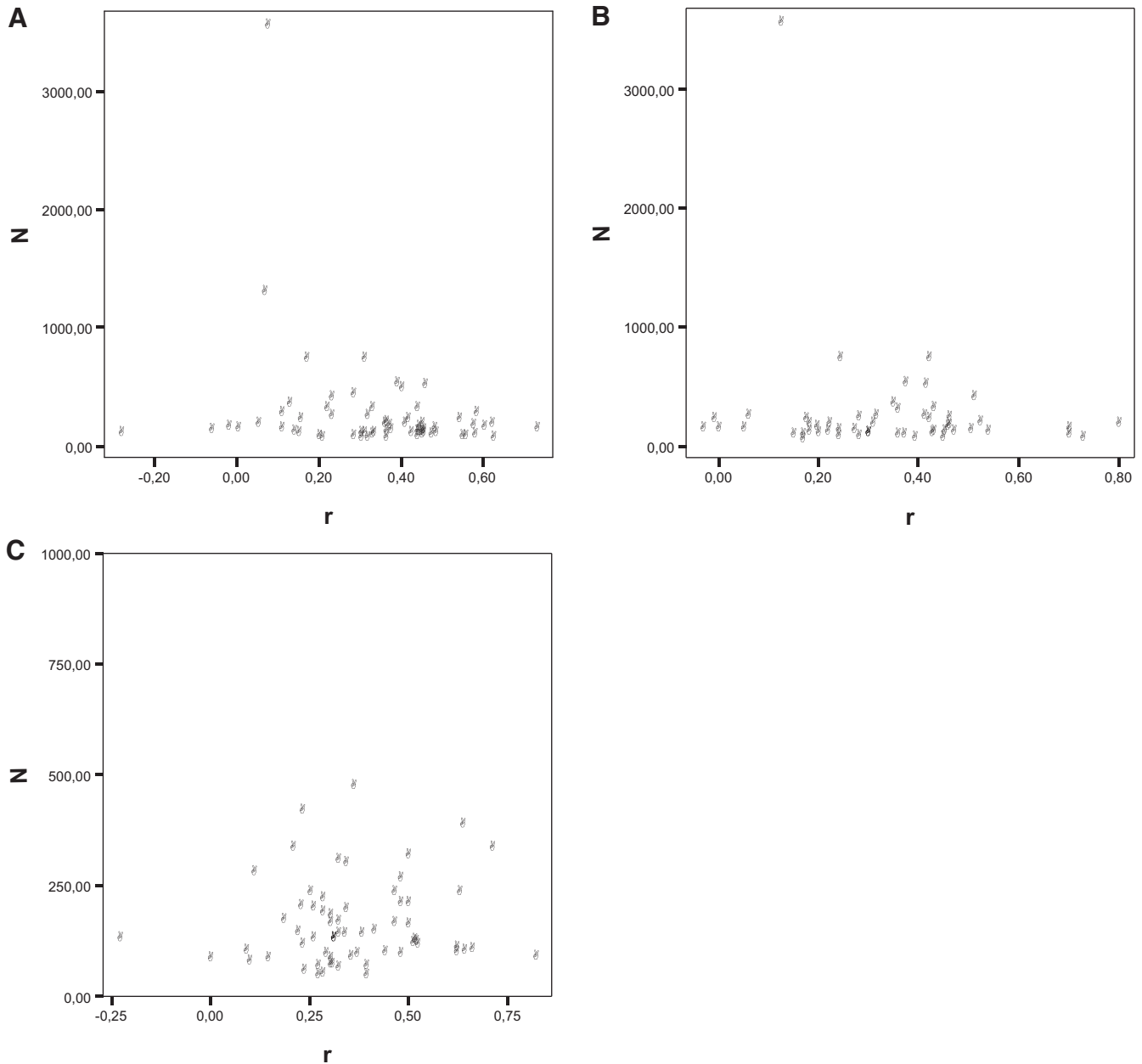


Figure 1. A: Funnel graph for meta-analysis on the injustice–collective action relationship. B: Funnel graph for meta-analysis on the efficacy–collective action relationship. C: Funnel graph for meta-analysis on the identity–collective action relationship.

21.05,  $p < .0001$ . Affective injustice produced significantly stronger effect sizes than those of non-affective injustice,  $Q_B(1) = 12.41$ ,  $p < .001$ ; and those of the mixed/unclear category,  $Q_B(1) = 20.48$ ,  $p < .0001$ . Non-affective injustice and the mixed/unclear category did not differ,  $Q_B(1) = 1.79$ ,  $p > .18$ . When collapsing the non-affective injustice and mixed/unclear categories, affective injustice ( $r = .49$ ) still produced stronger effect sizes than those of this category ( $r = .31$ ),  $Q_B(1) = 19.40$ ,  $p < .0001$ .

To control for the possible confounding influences of age and type of method, we included type of injustice (dummy-coded with

affective injustice as one category and non-affective injustice as another category), age, and type of method (dummy-coded with experimental studies as one category and non-experimental studies as another category), in a weighted multivariate regression analysis. Results showed that the effect of type of injustice held ( $\beta = .40$ ,  $p = .001$ ), independent of the effect of age that approached significance ( $\beta = -.24$ ,  $p > .06$ ) and the non-significant effect of type of method ( $\beta = .11$ ,  $p > .43$ ). The regression model was significant,  $Q(3) = 36.85$ ,  $p < .0001$ , random effects variance component  $v = .03$ , with an explained variance of 35%.

Table 2  
Effect Sizes Between Injustice and Collective Action as a Function of Type of Injustice

Type of injustice	<i>r</i>	95% CI	<i>Z</i>	<i>p</i>	<i>k</i>
Affective	.49 <sub>a</sub>	.43, .55	13.32	.0000	26
Non-affective	.34 <sub>b</sub>	.28, .39	10.55	.0000	38
Mix/unclear	.26 <sub>b</sub>	.18, .35	5.81	.0000	18
Between-class effect	$Q_B(2) = 21.05, p < .0001$				
Random variance component	$v = .03$				

Note. These analyses were conducted by using Fisher's *z*-transformed *r* values. Mean effects and confidence intervals listed in this table have been transformed back to the *r* metric from the *z*-transformed estimates obtained in these analyses. Mean effect sizes that do not share subscripts are significantly different from each other. *r* = correlation coefficient representing the mean effect size; 95% CI = the 95% confidence limits of *r*; *Z* = *z* test for the mean effect sizes; *p* = probability of *z* test; *k* = number of samples associated with the mean effect size.

*Type of identity.* As can be seen in Table 3, random effects analysis shows a significant between-class effect,  $Q_B(1) = 4.09, p < .05$ . Politicized identity ( $r = .43$ ) produced stronger effect sizes than did non-politicized identity ( $r = .34$ ). Nevertheless, the fact that non-politicized identity still predicted a substantial amount of variance in collective action (a medium-sized effect) suggests that social identity in general predicts collective action rather well.

Again, we controlled for the possible confounding influence of type of method. Results of a weighted multivariate regression analysis showed that the effect of type of identity held ( $\beta = .36, p < .01$ ), independent of type of method ( $\beta = .35, p < .01$ ). The regression model was significant,  $Q(2) = 12.98, p < .01$ , random effects variance component  $v = .03$ , with an explained variance of 16%.

*Type of disadvantage.* As predicted by SIMCA, and as can be seen in Table 4 (left hand side), random effects analysis shows a significant between-class effect of type of disadvantage for injustice,  $Q_B(1) = 6.29, p < .02$ ; for efficacy,  $Q_B(1) = 5.84, p < .02$ ; but not for identity,  $Q_B(1) = 0.02, p > .90$ . That is, effect sizes are larger for incidental disadvantage than for structural disadvantage for both injustice and for efficacy, but, importantly, this effect was not obtained for identity. Results for the interval moderator variable corroborated these results (see the right hand side of Table 4) for injustice ( $\beta = -.42, p < .001$ ), for efficacy ( $\beta = -.35, p < .01$ ), and for identity ( $\beta = -.03, p > .82$ ).

For the injustice sample, when we statistically controlled for the possible confounding influence of age and type of method, the effect of type of disadvantage held ( $\beta = -.27, p < .03$ ), independent of age ( $\beta = .23, p > .14$ ) and type of method ( $\beta = .23, p > .15$ ). The regression model was significant,  $Q(2) = 15.98, p < .01$ , random effects variance component  $v = .03$ , with an explained variance of 29%.

For the efficacy sample, results showed that the effect of type of disadvantage almost held ( $\beta = -.23, p < .07$ ), independent of type of method ( $\beta = .31, p < .02$ ). The regression model was significant,  $Q(2) = 12.26, p < .01$ , random effects variance component  $v = .03$ , with an explained variance of 19%.

*Type of group.* We also tested whether type of group would moderate effect sizes in a similar fashion as predicted for type of disadvantage (i.e., moderating effects for the injustice and efficacy samples only), where type of group approximates the incidental-structural distinction.

For injustice, random effects analysis indeed showed a significant effect of type of group,  $Q_B(3) = 12.44, p < .01$ . As can be seen in Table 5, vocational groups showed stronger effect sizes ( $r = .46, p < .001$ ) between injustice and collective action than did the other types of group ( $r = .31, p < .001$ ),  $Q_B(1) = 8.27, p < .01$ . When controlling for age and type of method, this contrast (between vocation and other groups) only approached significance ( $\beta = .23, p < .09$ ). There were no effects of age ( $\beta = -.21, p > .18$ ) or type of method ( $\beta = .20, p > .23$ ). The regression model was significant,  $Q(3) = 17.56, p < .001$ , random effects variance component  $v = .03$ , with an explained variance of 27%.

For efficacy and collective action, random effects analysis shows an effect approaching significance,  $Q_B(3) = 7.48, p < .06$ . Again, vocational groups showed stronger effect sizes ( $r = .45, p < .001$ ) between efficacy and collective action than did the other types of group ( $r = .30, p < .001$ ),  $Q_B(1) = 7.32, p < .01$ . When controlling for type of method, this contrast was no longer significant ( $\beta = .18, p < .31$ ). However, there was no effect of type of method either ( $\beta = .24, p > .18$ ). The regression model was significant,  $Q(3) = 9.17, p < .02$ , random effects variance component  $v = .03$ , with an explained variance of 15%.

Finally, effect sizes between identity and collective action did not show the pattern obtained for the injustice and efficacy samples: Random effects analysis did not show a significant effect,  $Q_B(3) = 2.62, p = .45$ . As can be seen in Table 5, vocational groups did not show stronger effect sizes ( $r = .37, p < .001$ ) between identity and collective action than did the other types of group ( $r = .41, p < .001$ ),  $Q_B(1) = .41, p > .52$ .

Results pointed to a general convergence between the moderating effects of type of disadvantage and type of group. We therefore tested whether type of disadvantage or type of group would best predict effect sizes for the injustice and efficacy samples. For injustice, a weighted multivariate regression analysis showed that in such a combined analysis, only type of disadvantage predicted effect size ( $\beta = -.39, p < .04$ ). There was no effect of type of group ( $\beta = .04, p > .82$ ). The regression model was significant,

Table 3  
Effect Sizes Between Identity and Collective Action as a Function of Type of Identity

Type of identity	<i>r</i>	95% CI	<i>Z</i>	<i>p</i>	<i>k</i>
Politicized	.43 <sub>a</sub>	.36, .49	11.31	.0000	27
Non-politicized	.34 <sub>b</sub>	.28, .40	10.93	.0000	45
Between-class effect	$Q_B(1) = 4.09, p < .05$				
Random variance component	$v = .04$				

Note. These analyses were conducted by using Fisher's *z*-transformed *r* values. Mean effects and confidence intervals listed in this table have been transformed back to the *r* metric from the *z*-transformed estimates obtained in these analyses. Mean effect sizes that do not share subscripts are significantly different from each other. *r* = correlation coefficient representing the mean effect size; 95% CI = the 95% confidence limits of *r*; *Z* = *z* test for the mean effect sizes; *p* = probability of *z* test; *k* = number of samples associated with the mean effect size.



Table 4  
*Effect Sizes for Injustice, Efficacy, Identity, and Collective Action as a Function of Type of Disadvantage*

Type of disadvantage	Categorical moderator			<i>p</i>	Interval moderator		
	<i>r</i>	95% CI	<i>Z</i>		<i>k</i>	$\beta$	<i>p</i>
Injustice							
Structural	.28 <sub>a</sub>	.21, .36	7.15	.0000	25	-.42	< .001
Incidental	.41 <sub>b</sub>	.35, .47	13.13	.0000	40		
Between-class effect				$Q_B(1) = 6.29, p < .02$			
Random variance component				$\nu = .03$			
Efficacy							
Structural	.25 <sub>a</sub>	.15, .35	4.81	.0000	13	-.35	< .01
Incidental	.39 <sub>b</sub>	.33, .45	13.15	.0000	40		
Between-class effect				$Q_B(1) = 5.84, p < .02$			
Random variance component				$\nu = .03$			
Identity							
Structural	.39 <sub>a</sub>	.32, .47	10.29	.0000	31	-.03	> .82
Incidental	.40 <sub>a</sub>	.32, .47	10.61	.0000	33		
Between-class effect				$Q_B(1) = .02, p > .90$			
Random variance component				$\nu = .04$			

*Note.* These analyses were conducted using Fisher's *z*-transformed *r* values. Mean effects and confidence intervals listed in this table have been transformed back to the *r* metric from the *z*-transformed estimates obtained in these analyses. Mean effect sizes that do not share subscripts are significantly different from each. *r* = correlation coefficient representing the mean effect size; 95% CI = the 95% confidence limits of *r*; *Z* = *z* test for the mean effect sizes; *p* = probability of *z* test; *k* = number of samples associated with the mean effect size;  $\beta$  = standardized regression coefficient representing the relation between the moderator variable and the effect size; *p* = probability of  $\beta$ .

$Q(2) = 13.53, p < .01$ , random effects variance component  $\nu = .03$ , with an explained variance of 18%.

For efficacy, we ran the same analysis but also included type of method (as it predicted effect size). Results showed no significant effects for type of disadvantage ( $\beta = -.06, p > .80$ ), type of group ( $\beta = .14, p > .55$ ), and type of method ( $\beta = -.22, p > .27$ ). Because multicollinearity may be part of the reason why results are inconclusive here (see Table 6), we also ran the same analysis without type of method as a predictor. Nonetheless, results still showed no effects for type of group and type of disadvantage and, hence, remained inconclusive for the efficacy sample.

*Type of measure of collective action.* As can be seen in Table 7, there are significant between-class effects for all three predictors. The distribution of the mean effect sizes is consistent across predictors: Measures of attitudes toward collective action tended to produce the strongest effect sizes (ranging from .45 to .70, although the latter estimate was based only on  $k = 2$ ), followed by action intentions (ranging from .36 to .37), and actual behavior (ranging from .21 to .30). Importantly, effect sizes of behavioral measures of collective action are reliably greater than zero in all samples. Unsurprisingly, a mixture of measures generally results in medium effect sizes (for injustice,  $r = .39$ ; for efficacy,  $r = .34$ ).

As expected, behavioral measures tended to result in smaller effect sizes than did non-behavioral measures in all samples: significantly so for injustice,  $Q_B(1) = 4.84, p < .03$ ; and efficacy,  $Q_B(1) = 4.57, p < .05$ ; and approaching significance for identity,  $Q_B(1) = 2.82, p < .10$ . Thus, the particular contrast between behavioral and non-behavioral measures resulted in relatively weak but distinct differences in mean effect sizes.

Again, we tested whether this effect held when controlling for type of method. For injustice, results showed that the effect of type of measurement of collective action (dummy-coded) turned into a

statistical trend ( $\beta = -.19, p < .12$ ), whereas there was a significant effect of type of method ( $\beta = .44, p < .001$ ). The regression model was significant,  $Q(2) = 18.88, p = .0001$ , random effects variance component  $\nu = .03$ , with an explained variance of 27%.

For efficacy, results showed that the effect of type of measurement of collective action did not hold ( $\beta = -.21, p = .15$ ), but there was also no significant effect of type of method ( $\beta = .27, p > .06$ ). The regression model was significant,  $Q(2) = 8.79, p < .02$ , random effects variance component  $\nu = .04$ , with an explained variance of 16%.

For identity, results showed that the effect of type of measurement of collective action that approached significance did not hold ( $\beta = -.17, p = .21$ ), but there was no effect of type of method either ( $\beta = .14, p = .28$ ). The regression model was not significant either,  $Q(2) = 4.00, p > .13$ , random effects variance component  $\nu = .04$ , with an explained variance of 6%.

#### *Toward Further Theoretical Integration: SIMCA*

We now turn to a more direct test of SIMCA. Our database contained a relatively large subset of independent samples in which all three predictors were measured ( $k = 27$ , with a total  $N$  of 3,084), and correlations between predictors as well as between predictors and collective action were derived from these. We excluded those studies that did not include all variables; we did this for the simple reason that the substantial number of studies measuring all three variables of interest allowed for a robust and stable estimate of all covariations of interest, retaining the same  $N$  and  $k$  for the entire data matrix, and therefore with similar confidence intervals for each. We used this matrix as input for a path analysis that allows tests for the viability of SIMCA and alternative theoretical models. The robustness of the effect size estimates that can be obtained with meta-analytic data make these suitable

for such analyses (e.g., because they are less sensitive to outliers and other sources of random as well as non-random variation).

We first checked whether this subset produced comparable effect sizes between collective action and injustice, efficacy, and identity. As can be seen in Table 1, results were very similar to those for the full sample, producing medium-sized effects for all three predictors (ranging from .34 to .37). The synthesized correlation matrix can be found in Table 8.

**SIMCA**

SIMCA proposes that social identity bridges the injustice and efficacy explanations of collective action while allowing for a direct effect of identity on collective action. In other words, identity predicts collective action directly as well as indirectly, through its prediction of the injustice and efficacy variables. The errors of efficacy and injustice, however, were not allowed to correlate (as no variance should be shared between the two except for the variance due to identity's prediction). Using EQS 6.1

**Table 5**  
*Effect Sizes for Injustice, Efficacy, Identity, and Collective Action as a Function of Type of Group*

Type of group	r	95% CI	Z	p	k
<b>Injustice</b>					
Vocation	.46 <sub>a</sub>	.38, .54	11.04	.0000	23
Stigma	.39 <sub>ab</sub>	.29, .49	7.51	.0000	15
Political					
affiliation	.30 <sub>bc</sub>	.20, .40	5.96	.0000	14
Nationality/ethnicity	.25 <sub>c</sub>	.15, .35	4.89	.0000	13
Between-class effect		$Q_B(3) = 12.44, p < .01$			
Random variance component		$v = .03$			
<b>Efficacy</b>					
Vocation	.45 <sub>a</sub>	.36, .54	9.94	.0000	20
Stigma	.32 <sub>ab</sub>	.16, .47	4.05	.0001	6
Political					
affiliation	.31 <sub>bc</sub>	.23, .40	7.23	.0000	20
Nationality/ethnicity	.26 <sub>bc</sub>	.13, .40	3.81	.0001	7
Between-class effect		$Q_B(3) = 7.48, p < .06$			
Random variance component		$v = .03$			
<b>Identity</b>					
Vocation	.37 <sub>a</sub>	.28, .46	8.13	.0000	22
Stigma	.45 <sub>a</sub>	.34, .57	7.64	.0000	12
Political					
affiliation	.42 <sub>a</sub>	.33, .52	8.51	.0000	17
Nationality/ethnicity	.34 <sub>a</sub>	.23, .45	5.88	.0000	13
Between-class effect		$Q_B(3) = 2.62, p = .45$			
Random variance component		$v = .03$			

*Note.* These analyses were conducted using Fisher's z-transformed r values. Mean effects and confidence intervals listed in this table have been transformed back to the r metric from the z-transformed estimates obtained in these analyses. Mean effect sizes that do not share subscripts are significantly different from each. r = correlation coefficient representing the mean effect size; 95% CI = the 95% confidence limits of r; Z = z test for the mean effect sizes; p = probability of z test; k = number of samples associated with the mean effect size.

**Table 6**  
*Correlation Matrix for Moderator Variables*

Moderator variable	2	3	4	5	6
<b>Injustice-collective action meta-analysis</b>					
1. Type of injustice	-.18	.57**	.42**	-.31**	-.30**
2. Type of collective action	—	-.24	-.32**	.22*	.46**
3. Type of group		—	.45**	-.59**	-.36**
4. Type of method			—	-.18	-.68**
5. Type of disadvantage				—	.18
6. Age					—
<b>Efficacy-collective action meta-analysis</b>					
1. Type of collective action	-.27*	-.34**	.12	.25	
2. Type of group	—	.71**	-.40**	-.44**	
3. Type of method		—	-.23	-.54**	
4. Type of disadvantage			—	.26	
5. Age				—	
<b>Identity-collective action meta-analysis</b>					
1. Type of identity	.34**	-.33**	-.39**	-.08	.46**
2. Type of collective action	—	-.15	-.31**	.16	.25*
3. Type of group		—	.39**	-.71**	-.14
4. Type of method			—	-.23*	-.42**
5. Type of disadvantage				—	-.05
6. Age					—

\* p < .01. \*\* p < .001.

(Bentler, 2005), results showed that, descriptively, this model produced the best fit of the models we tested,  $\chi^2(1) = 18.80, p < .0001$ . It is not surprising that the chi-square statistic was significant given its sensitivity to sample size. However, more appropriate fit indices suggested that the data closely matched the model's predictions: comparative fit index (CFI) = .99, generalized fit index (GFI) = .99 (both of which should be above the desired benchmark of .90), squared root mean residual (SRMR) = .03, root mean square error of approximation (RMSEA) = .08 (both of which should be below the desired benchmark of .10). As can be seen in Figure 2, identity predicted injustice (.26), efficacy (.19), and collective action (.21). Moreover, the predictive strengths of injustice and efficacy were .28 and .28, respectively.

**Other Integrative Models**

We first tested an alternative model that represents the view that identity predicts collective action through perceived and felt injustice. The idea here is that identity affects perceived and felt injustice, which in turn propels collective action. Efficacy does not predict collective action in this model, and we allowed efficacy to correlate with the other two predictors because the approaches on which this model is based make no clear predictions regarding them. Results showed that this model did not fit the data well,  $\chi^2(2) = 535.69, p < .0001$ . The fit indices similarly suggested fit was not good: CFI = .60 and GFI = .93, and SRMR = .12 and RMSEA = .29. In this model, there were positive correlations between identity and injustice (.26), between identity and efficacy

Table 7  
Effect Sizes for Injustice, Efficacy, Identity, and Collective Action as a Function of Type of Measure of Collective Action

Type of measure of collective action	<i>r</i>	95% CI	<i>Z</i>	<i>p</i>	<i>k</i>
<b>Injustice</b>					
Attitude	.45 <sub>a</sub>	.32, .56	6.13	.0000	8
Intention	.36 <sub>a</sub>	.29, .42	10.45	.0000	41
Behavior	.21 <sub>b</sub>	.08, .34	3.04	.0009	10
Between-class effect		$Q_B(2) = 6.71, p < .04$			
Random variance component		$v = .04$			
<b>Efficacy</b>					
Attitude	.70 <sub>a</sub>	.52, .82	5.88	.0000	2
Intention <sup>a</sup>	.36 <sub>b</sub>	.30, .42	10.65	.0000	37
Behavior <sup>a</sup>	.25 <sub>c</sub>	.14, .35	4.60	.0000	14
Between-class effect		$Q_B(2) = 15.93, p < .001$			
Random variance component		$v = .04$			
<b>Identity</b>					
Attitude	.49 <sub>a</sub>	.39, .58	8.32	.0000	12
Intention	.37 <sub>b</sub>	.31, .43	11.23	.0000	42
Behavior	.30 <sub>b</sub>	.20, .40	5.37	.0000	14
Between-class effect		$Q_B(2) = 6.74, p < .05$			
Random variance component		$v = .04$			

Note. These analyses were conducted using Fisher's z-transformed *r* values. Mean effects and confidence intervals listed in this table have been transformed back to the *r* metric from the z-transformed estimates obtained in these analyses. Mean effect sizes that do not share subscripts are significantly different from each. *r* = correlation coefficient representing the mean effect size; 95% CI = the 95% confidence limits of *r*; *Z* = z test for the mean effect sizes; *p* = probability of z test; *k* = number of samples associated with the mean effect size.

<sup>a</sup> Intention and behavior differ at *p* < .06.

(.19), and between injustice and efficacy (.12). The predictive strength of injustice was .37.<sup>12</sup>

The second alternative model we tested represents the view that identity and efficacy uniquely predict collective action. Injustice does not predict collective action in this model, and because efficacy and identity are conceptualized as individual- and group-level predictors of collective action, they should not be correlated. We allowed the other two correlations between the three predictors to be estimated because the approaches on which this model is based make no clear predictions regarding them. Results showed that this model did not fit the data well,  $\chi^2(2) = 412.60, p < .0001$ ; CFI = .69, GFI = .94, SRMR = .11, RMSEA = .26. In this model, there were positive correlations between identity and injustice (.24), and between injus-

Table 8  
Correlation Matrix for Subset

Variable	2	3	4
1. Injustice	.26**	.12*	.37**
2. Identity	—	.19**	.34**
3. Efficacy		—	.35**
4. Collective action			—

\* *p* < .01. \*\* *p* < .001.

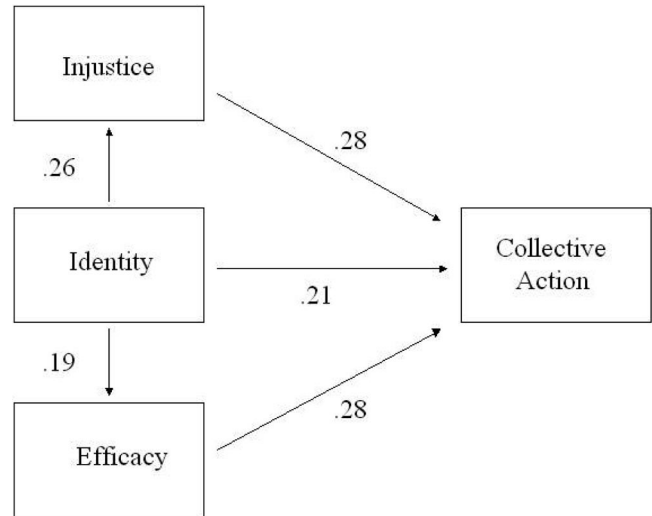


Figure 2. Social identity model of collective action (SIMCA).

tice and efficacy (.08). The predictive strengths of identity and efficacy were .29 and .31, respectively.<sup>13</sup>

The third alternative model we tested represents the view that identity predicts injustice and efficacy, both of which predict collective action in turn. Thus, the model does not allow for a direct effect of identity and does not assume that the errors of injustice and efficacy are correlated. Results showed that this model also did not have very good fit,  $\chi^2(2) = 187.81, p < .0001$ . Fit indices were better than in the previous alternative models, but they did not all meet the desired benchmarks: CFI = .86, GFI = .97, SRMR = .07, RMSEA = .17. In this model, identity predicted injustice (.26) and efficacy (.19), and the predictive strengths of injustice and efficacy were .34 and .32, respectively. In sum, the only integrative model that produced a good fit to the data was SIMCA.

## Discussion

The results of our quantitative research synthesis of the effects of injustice, identity, and efficacy on collective action supported multiple SIMCA predictions: (a) injustice, efficacy, and identity each (causally) affected collective action; (b) affective injustice produced stronger effect sizes than did non-affective injustice, and politicized identity produced stronger effect sizes than did non-politicized identity; (c) identity predicted both incidental and structural disadvantage, whereas injustice and efficacy tended to predict structural disadvantage less well than incidental disadvantage; (d)

<sup>12</sup> We also tested a less restrictive model that allowed correlations between the predictors, and predictive effects of identity and injustice (but not of efficacy). This model did not fit the data either,  $\chi^2(1) = 303.51, p < .0001$ , CFI = .77, GFI = .95, SRMR = .09, and RMSEA = .31.

<sup>13</sup> We also tested a less restrictive model that allowed correlations between the three predictors, the predictive effects of identity and efficacy, but not the predictive effect of injustice. This model did not fit the data either,  $\chi^2(1) = 301.79, p < .0001$ , CFI = .77, GFI = .96, SRMR = .08, and RMSEA = .31.

all three predictors had unique effects when controlling for inter-predictor covariance; and (e) social identity bridged the injustice and efficacy explanations of collective action, with SIMCA receiving better empirical support than the other integrative models we tested.

### *Three Unique Explanations of Collective Action*

The results showed strong and consistent support for three distinct socio-psychological perspectives on collective action. Attitudes toward collective action, collective action intentions or tendencies, and actual behavioral measures of collective action were all predicted by peoples' subjective senses of injustice, efficacy, and identity. Effect sizes were moderate on the whole, although they were somewhat smaller for measures of actual behavior. However, given the nature of these collective actions, the inaccuracies associated with measurement (i.e., reliance on single instances of action instead of more sophisticated multiple-behavior indices), and the sometimes considerable amounts of adversity associated with them, even such relatively small effects can be impressive (Prentice & Miller, 1992). Thus, results confirmed the importance of injustice, efficacy, and identity as explanations of collective action.

### *The Issue of Causality*

Hitherto, inferences in this literature have been largely based on correlational data. As is almost always the case with cross-sectional samples, warnings have been sounded in the past that the causal inferences that are conventionally drawn in this literature may be incorrect (Klandermans, 1997). However, the results of the present meta-analysis show that effect sizes in cross-sectional studies are very similar to effect sizes in research that allows causal inferences to be drawn. Thus, results support the often-made assumption in the collective action literature that injustice, efficacy, and identity each are causes of collective action. Moreover, it suggests that to the extent that reverse causation effects exist, these effects are not large or else, by inference, effect sizes in cross-sectional research should have been stronger.

### *Moderator Variables*

Despite the fact that effect sizes were of medium strength on average, there was also considerable variation around the mean. As predicted by SIMCA, some of this variance was explained by moderator variables. However, we note that moderators in meta-analysis are often (and almost inevitably) confounded (see Table 6). Although we were in most cases able to statistically control for non-substantive moderators, our conclusions regarding the moderators should be treated with caution. Future (primary) research should corroborate our conclusions.

### *Type of Injustice*

Affective injustice predicted collective action better than non-affective injustice. This is in line with previous meta-analytic results reported by H. J. Smith and Ortiz (2002) specific to the relative deprivation–collective action link as well as with theoretical developments in relative deprivation research, which has shifted its concern from individual perceptions of inequality to the

experience of feelings of group-based relative deprivation. More generally, these findings fit nicely with recent work conceptualizing group-based emotion as predictors of tendencies to engage in collective action (Mackie & Smith, 2002; E. R. Smith, 1993; Yzerbyt et al., 2003). In line with SIMCA, these results tie the experience of affective injustice directly to social identity because the latter is an important psychological basis for group-based perception, emotion, and action.

### *Type of Identity*

Politicized identity predicted collective action better than non-politicized identity. This is in line with work by Simon, Stürmer, and colleagues (for a review, see Stürmer & Simon, 2004a), who argued that a politicized identity is more specific to collective action, and hence politicized identity goes hand in hand with a stronger internal obligation to participate in social movement activities (Stürmer & Simon, 2004a). These results point once more to the prominence of social identity in collective action, as outlined by SIMCA. More specifically, they may explain why there is a unique effect of identity on collective action: Identities can politicize, and as a consequence people experience a stronger “inner obligation” to participate (Stürmer & Simon, 2004a). More generally, these findings focus attention on the importance of social identity content. Ultimately, it may not necessarily be social identity or identification per se that prepares people for collective action, but rather the content of social identity. Social identities thus form a basis for collective action to the extent that they form or transform individuals' identities from those that are defined by social circumstance into more agentic ones (Drury & Reicher, 1999; Hercus, 1999; Reicher, 1996, 2001; see also Klein et al., 2007).

### *Type of Disadvantage*

Injustice and efficacy more strongly predicted responses to incidental disadvantage than to structural disadvantage (although the effect only approached significance for the efficacy sample and did not hold when controlling for type of group). Identity, however, was a strong predictor for collective action against both types of disadvantage. These findings together support both SIMCA and the idea that a theoretically consequential distinction can be made between incidental and structural disadvantage. However, the strong correlations between type of disadvantage and type of group suggest that incidental disadvantages are more likely to be associated with vocational groups than groups based in stigma, political affiliation, and ethnicity/nationality (see Table 6). It is clear that this strong relationship is relevant to explaining our results.

In response to incidental disadvantages, the greater influences of injustice (and efficacy) are explained by the idea that structural disadvantage is more harmful psychologically, but is less likely to evoke action-oriented emotional responses such as group-based anger (Major, 1994; Schmitt & Branscombe, 2002), and is harder to change (Jost & Major, 2001; Sidanius & Pratto, 1999; Sidanius et al., 2004). At a more structural level, these results also reflect the fact that in the case of intergroup differences with a long history, those differences become part of the established structure of society to such an extent that disadvantaged groups might even see their state as natural and self-explanatory (Major, 1994) or, in

other terms, “essential” and natural properties of the groups in question (see Yzerbyt, Rocher, & Schadronek, 1997). It is therefore not surprising that these processes are more relevant to groups associated with stigma, political affiliation, and ethnicity/nationality.

Nonetheless, identity predicted collective action against both structural and incidental disadvantages. According to SIMCA, social identity is important in relation to structural disadvantages because collective action requires that an existing social identity is transformed. SIT was originally developed as a theory of intergroup relations, specifically aimed at explaining the structural case. Therefore, peoples’ sense of identification with a group was predicted to be a function of socio-structural conditions that implied cognitive alternatives to the status quo (Tajfel, 1978). However, social identity is also important in relation to incidental disadvantages because it enables group-based appraisal, emotion, and action. This is because group-based emotions are conceptualized as functional responses to appraised situations, and incidental disadvantages by definition allow for such responses to novel situations or events. Thus, social identity matters to incidental disadvantage too because it is formed on the basis of the situation or event (e.g., Reicher, 1996).

#### *Type of Measurement of Collective Action*

Unsurprisingly, attitudinal measures of collective action produced the strongest effect sizes, followed by intentions and behavioral measures. Although these effects appeared to be strong and clear, it should be noted that they did not hold after controlling for non-substantive variables. Nonetheless, because alternative explanations of this effect were not conclusive either (as non-substantive variables did not consistently moderate effect sizes), and because results were in line with classic models of the attitude–behavior link (e.g., Ajzen & Fishbein, 1977; Fishbein & Ajzen, 1975), we conclude with some caveats that results supported these models.

Importantly, although behavioral measures resulted in smaller effects than did non-behavioral measures, they were still reliably greater than zero in all three samples. This strengthens the case for the use of behavioral measures (either actual behavior or self-reported past behavior), which are especially important if researchers seek to generalize to actual collective action. Admittedly, collective action can be hard to measure in terms of behavior, especially in controlled and often somewhat artificial laboratory contexts. However, such operationalizations are not impossible. For example, a recent study nicely operationalized collective action as the number of leaflets taken by participants to give to others (Langner, 2006). This operationalization allows for an interval level of measurement and captures the social nature of collective action in terms of the elements of social influence and mobilization.

#### *Toward Further Theoretical Integration: SIMCA*

Results showed strong support for SIMCA in a more direct test of the model, and weaker support for alternative integrative models (e.g., Kawakami & Dion, 1995; Mummendey et al., 1999; Simon et al., 1998; Van Zomeren et al., 2004). This corroborates the point that previous theory and research on collective action has not

sufficiently acknowledged that each of these three has unique predictive value as well as that they also have a clear set of interrelations among them in which social identity has a key bridging function.

By acknowledging the power of the specific emotional experience of group-based injustice, SIMCA moves beyond Simon et al.’s (1998) model, which acknowledges the prominence of social identity but not so much the predictive power of its group-specific emotional consequences. SIMCA also moves beyond Mummendey et al.’s (1999) and Van Zomeren et al.’s (2004) models by incorporating Simon et al.’s (1998) assertion that identity has a unique effect on collective action. This may be due to the possibility that identity can politicize, and, hence, people feel a stronger internal obligation to engage in collective action (Stürmer & Simon, 2004a). Thus, SIMCA allows for social-identity-based processes of emotion and politicization.

Moreover, although SIMCA acknowledges the “divide” between the injustice and efficacy explanations of collective action, it does not see them as mutually exclusive explanations (as debates in the seventies and eighties sometimes presented them) but rather suggests that social identity bridges this “divide.” In this respect, SIMCA concurs with both Mummendey et al.’s (1999) and Van Zomeren et al.’s (2004) models that the injustice and efficacy explanations do not covary above and beyond the shared variance due to identity’s prediction of them. Indeed, SIMCA holds that identity predicts injustice (because it provides the basis for group-based perception, emotion, and action) as well as efficacy. In line with Mummendey et al.’s (1999) and Reicher, Drury, and colleagues’ theorizing (e.g., Drury & Reicher, 2005), identity predicts efficacy because social identity empowers relatively powerless individuals. Although there may be important differences between efficacy (perhaps more calculative and “cold”) and empowerment (perhaps more affective, and associated with positive group-based emotions) there is, in our view, a common basis where both should be associated with a mounting sense that social influence can be exerted through collective action.

#### *Implications for Theory, Practice, and Future Research*

There are at least four key questions about the potential implications of SIMCA’s suggestion that social identity predicts collective action directly and indirectly. First, what are the implications for future theorizing on collective action? Second, what are the more practical implications of our analysis? Third, what are the key issues for future research to consider? Fourth, what are the broader implications for scholars in other disciplines in the social sciences?

#### *Implications for Theory*

Although SIMCA suggests that social identity is at the very heart of explaining collective action, little is known yet about how the content and strength of social identities develop over time. In particular, we need to know more about (a) how perceptions of group-based injustice translate into powerful group-based emotions that predict collective action and (b) the processes through which social identities become politicized. Of course, the two are related. The first issue relates to how people come to participate in collective action in the first place. Here group-based emotions like

anger may be of major relevance because they motivate people to act on perceived injustices (i.e., they raise their action readiness; Frijda, 1986). In fact, the relative importance of the affective and group-based experience of injustice fits with Simon and Klandermans's (2001) suggestion that "shared grievances" and "adversarial attributions" are important variables in the mobilization process. Indeed, appraisal theories of emotion (for an overview, see Scherer et al., 2001) suggest that appraisals of injustice and other-blame are distinct elements of anger (see also Lazarus, 1991). When such appraisals are group-based, one can speak of a shared sense of injustice or grievances, and when a particular out-group is blamed for the group-based injustice, group-based emotions like anger should be highly predictive of collective action.

The second issue relates to the process by which social identities are transformed such that they become more geared toward action. For example, both Reicher (1996) and Stürmer and Simon (2004a) have suggested that collective action participation itself may encourage the development of a politicized identity (see also Hercus, 1999). According to Simon and Klandermans (2001), another important element in this process is individuals' awareness that society at large is involved in the struggle (i.e., that collective action is inherently political because it is fought out in the public arena). Collective action may therefore be viewed as going beyond the simple in-group/out-group distinction, involving third parties whose support may be crucial to victory in the power struggle.

In our view, a two-level process seems likely: a first level in which social identity, group-based emotions such as anger, and group efficacy beliefs jointly determine whether people engage in collective action and hence become collective action participants; and a second level in which actual participation in collective action (and the interaction with other activists that it implies) politicizes social identity such that, by definition, people become aware of the involvement of society at large. This two-level analysis is also applicable to the conceptual distinction between incidental and structural disadvantage. Collective action against incidental disadvantages seems particularly likely to take place at the first level, where situations or events form social identities that in turn enable group-level appraisal, emotion, and action. Given that there is no pre-existing social structure and no established social identity, this first level may already move people into action through the strength of social identification, group-based emotion, and group efficacy beliefs. Collective action against structural disadvantage, however, may depend more on processes at the second level: the transformation of an established social identity into a more politicized one. Here the strength of (politicized) identification should be the key predictor, with less reliance on, and therefore a less predictive role for, group-based emotions and group efficacy (which may be cued more by the social context than when embedded in a politicized identity).

This two-level analysis derived from SIMCA specifies and complements Klandermans's (1997) analysis of how people become social movement participants. Klandermans argued that, in a first and second step, individuals have to sympathize with a social movement and be targeted by the movement before they become potential social movement members. SIMCA offers a more elaborate theoretical explanation of the psychological processes involved in these steps by pointing to the role of social identity formation and group-based emotions in bridging individual per-

ceptions of injustice and collective action. Moreover, it suggests that social identity is involved in empowerment processes that facilitate collective action. In a third and fourth step, Klandermans (1997) argued that people are motivated by the social movement for specific actions and need to overcome practical obstacles to participation. Here, too, SIMCA offers a complementary theoretical explanation of the psychology involved in these steps by pointing to the role of social identity transformation and politicization rendering more focused, agentic, and committed activist identities that should be a better predictor of collective action than injustice and efficacy. Longitudinal research examining this two-level process of how people become collective action participants (with a key role for social identity, group-based emotions, and group efficacy), and how their identity transforms (with a key role for the politicization of social identity), would therefore seem timely and valuable.

### *Practical Implications*

SIMCA offers some powerful and straightforward implications for practice through its conclusion that social identity is at the very heart of explanations of collective action. A stronger sense of social identity should relate to a stronger motivation to engage in collective action (through stronger adherence to group norms), a stronger perception and experience of injustice (through group-based emotional experience), and a stronger sense of efficacy (through empowerment). Although those who aim to mobilize group members for action can use all three elements of a collective action frame (Gamson, 1992), SIMCA suggests more specifically which psychological processes need to be influenced. Moreover, SMOs can help transform the content of social identity into a more politicized identity, which should raise one's motivation for collective action even more (through a stronger inner obligation to act). SMOs should therefore try to both strengthen and transform individuals' social identities.

However, note that our analysis (necessarily) examined the three explanations of collective action as additive effects. It is of course possible that there are interactions between the three predictors of collective action. For example, it could be the case that high and low identifiers perceive and experience the social world qualitatively differently and are hence differentially motivated to engage in collective action (e.g., Veenstra & Haslam, 2000; see also Kelly & Breinlinger, 1996). If true, then this may suggest that low identifiers could be "persuaded" to engage in collective action in different ways than might high identifiers. For example, low identifiers' commitment to the group is more sensitive to instrumental impediments and potential, whereas, in contrast, high identifiers stick with their group irrespective of contextual constraints (Doosje, Spears, & Ellemers, 2002; Ellemers, Spears, & Doosje, 1999). Thus, low identifiers may be more effectively motivated for collective action through instrumental factors such as efficacy, whereas high identifiers may be motivated more strongly by factors such as the experience of (affective) injustice (e.g., Kelly & Breinlinger, 1995).

One important question in this respect is whether such moderating effects are more likely to be found for people with non-politicized identities than for those with politicized identities (who are also likely to be high identifiers with the more general social category). As suggested in the two-level model derived from

SIMCA, those with politicized identities may have different motivations to engage in collective action than do those with non-politicized identities. Therefore, exploring the interactions between (politicized and non-politicized) identity, injustice, and efficacy as explanations for collective action should be of considerable interest to collective action theorists, researchers, and practitioners.

### *Implications for Future Research*

Our analysis raises numerous issues for future research. We focus here on what we consider to be the key themes: Research should examine the reverse causal effects between the variables that SIMCA incorporates (e.g., between identity and injustice, and between identity and efficacy), and research should examine how the two social-identity-based predictors of collective action—politicized identity and group-based emotions—can be combined to constitute a particularly powerful predictor of collective action. In addition, we believe that the relationship and interplay between systemic conditions and SIMCA's subjective predictors of collective action deserves further study. Perhaps most importantly, this meta-analysis highlights the need for more behavioral research.

*Reverse causation.* Although SIMCA predicts that social identity bridges the injustice and efficacy explanations of collective action, it is quite likely that evidence can also be obtained for the reverse relationships, for example with collective feelings of injustice increasing levels of identification (e.g., Branscombe et al., 1999; Postmes & Branscombe, 2002; see also Kessler & Holbach, 2005). Indeed, appeals to a collective sense of injustice and wrongdoing may operate as rallying calls for a group, fostering solidarity against a common enemy. In a similar vein, it is possible that identity and efficacy share a reciprocal relationship (i.e., stronger efficacy resulting in stronger identification, and stronger identification resulting in a greater perception of efficacy). Future (experimental) research should aim to disentangle these two possibilities to further our understanding of the dynamic processes between identity and injustice, and between identity and efficacy.

One can also wonder how participation in collective action itself affects identity, injustice, and efficacy. Whereas collective action may be important in the process of politicization of a social identity (Reicher, 1996; Stürmer & Simon, 2004a), it may also affect injustice and efficacy. It may affect injustice because participation may increase the emotional experience of group-based injustice through social sharing and/or increased (expectations of) social support (e.g., Van Zomeren et al., 2004). Moreover, participation may affect group efficacy beliefs because of the empowerment people feel while they (or those they affiliate with) challenge the established order (Drury & Reicher, 1999, 2005). Indeed, it is on the basis of past victories (perhaps symbolic, perhaps only by a vanguard) that group members can begin to transform their social identities. It is useful in this light to refer to terrorism, which can be seen to fulfill this function of demonstrating the establishment's vulnerabilities with an eye to the politicization of identity. Thus, the examination of the dynamic processes between collective action, on the one hand, and identity, injustice, and efficacy, on the other hand, is yet another direction for future research to consider.

*"Politicized" emotions.* Our results further raise the question of which group-based emotions on the basis of politicized identi-

ties will be even more predictive of collective action. Future research should consider whether politicized identities incorporate the experience of strong positive group-based emotions such as pride that motivate individuals to engage in collective action. Such feelings of pride may also be associated with experiences of moral superiority, with perceptions of those who oppose one's cause (e.g., the government) as "immoral," and with the group-based emotional experience of moral outrage against those responsible for the "immoral" state of affairs (e.g., Tetlock, 2002; Van Zomeren & Spears, 2008). Future research is necessary to examine these novel and interesting suggestions.

*Interplay between systemic conditions and SIMCA.* A broader and more general implication of SIMCA is that subjective variables appear crucial in explaining collective action. Of course, this perspective does not deny the relevance of systemic influences and socio-structural factors, and in particular it does not diminish the relevance of intergroup dynamics in social conflict (e.g., Klandermans, 1997; Simon & Klandermans, 2001). What it does suggest, however, is that these influences of intergroup dynamics and social structure, including history and ideology, are likely to be psychologically mediated. This ultimately means that in social movements and bodies of collective action (crowds, communities, etc.) there is agency. Individuals, whether they are ordinary participants or leaders, make choices and decisions that can have far-reaching consequences for the course of events and that cannot be solely explained by the social and economic conditions within which those actions arise. In other words, the psychological dimension of collective action is both relevant and consequential, especially where the proximal determination of collective action is concerned. At the same time, it should be clear that the psychology of collective action cannot be understood in a social vacuum—for a theory of collective action to be viable, it will need to be multidisciplinary, and any account of psychological processes needs to take account of the historical, social, and political factors that form the social context they also originate from.

Therefore, the next step for theoretical integration seems to be the examination of the potential interaction between objective and subjective variables. For example, one could conceptualize indexes like socioeconomic status, social capital, political opportunity structure, or social movement network size as potential facilitators or impediments to collective action to the extent that they are subjectively perceived as raising or lowering the group's efficacy to achieve the group's goal(s). One could also conceptualize factors indicating values of justice and freedom in society (i.e., right to freedom of speech, due process) as affecting collective action to the extent that, through a system of justice, justice is more likely to be subjectively perceived and, hence, collective action is less likely to occur. In our view, the examination of the interaction between subjective and objective variables should be a key step forward in terms of further (multidisciplinary) theoretical integration. Broad, dynamic, flexible models of collective action (Klandermans, 1997; Simon & Klandermans, 2001) may therefore consider SIMCA as a specific basis on which to develop specific predictions concerning the role of such objective variables.

Another important implication of SIMCA relates to the rational individual actor assumption (M. Olson, 1968), or intuitive economist metaphor (Tetlock, 2002), which is often used in the broader social and political sciences to explain individuals' behavior and decision making. Although we did not include individuals' cost-

benefit calculation motives in the research synthesis, theoretically such motives are arguably not based in social identity but rather in personal identity concerns. Hence, these motives should—if anything—predict collective action independent of the SIMCA variables (Simon et al., 1998; Stürmer & Simon, 2004a). This implies that although “rational actors” may participate in collective action when the individual benefits outweigh individual costs, the social-identity-based processes identified by SIMCA (group-based emotions, empowerment, adherence to group norms) should predict collective action above and beyond these individual cost-benefit calculations, and they might even exert a powerful influence on the valuation of these costs and outcomes that form the input for such calculations. Our perspective thus goes beyond the rational actor assumption by pointing to the importance of social identities that can be formed and transformed as well as function as psychological platforms on which group-based perception, emotion, and action ensue (see also Van Zomeren & Spears, 2008).

*Behavioral measures.* This quantitative research identifies some of the shortcomings and weaknesses of current psychological research on collective action. At present, most quantitative research relies on self-reports as measures of injustice, efficacy, identity, and collective action. This raises numerous concerns. A general concern is that self-reports assume that collective actions are undertaken on the basis of mental processes (motivations, affiliations, etc.) of which people are consciously aware. It is doubtful whether this is entirely the case. Psychological explanations for collective action that are based on the frustration-aggression hypothesis (Berkowitz, 1989; Dollard, Doobs, Miller, Mowrer, & Sears, 1939), or explanations based on deindividuation theory (Diener, 1980; but see Postmes & Spears, 1998), both assume that collective action is based on unconscious or uncontrolled processes (displacement and decreased self-awareness, respectively). It would therefore be useful for future research to rely more on different classes of process variables as well as on more behavioral outcome measures. However, the reliance on self-report measures does not invalidate the conclusions of our analysis. This is because our main conclusions are corroborated by research using behavioral measures and/or experimental methods—confirming that reported effects are both likely to be causal and consequential. Both conscious and non-conscious processes may thus play a role in motivating people to engage in collective action, but at present we know more about the conscious factors involved.

In conclusion, this article proposed and examined SIMCA as an integrative psychological perspective, with injustice, efficacy, and most prominently social identity as its key components for understanding and predicting collective action. According to this perspective, social identity helps relatively powerless individuals to perceive and emotionally experience incidental and structural disadvantages as unjust as well as to feel empowered in order to challenge those in power. This paints a positive picture of humans relying on social cooperation in groups to meet the challenges they face—even when their established membership in these groups may be the source of the individual hardships they face.

## References

\*References marked with an asterisk indicate studies included in the meta-analysis.

\*\*References marked with a double asterisk indicate studies included in the subset.

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Appendix A

Table A1  
 Table of Included Studies, Effect Sizes, Sample Sizes, and Key Moderators for the Meta-Analysis on Injustice–Collective Action

Source	r	N	Type injustice	I/S	I–S	Type group	Type CA	Type method	Causality
Blader (2007)	.62	167	1	1	3.00	2	1	2	0
Blader (2007)	.73	121	1	1	3.00	2	1	2	0
Brunsting & Postmes (2002)	.20	63	1	1	4.00	4	1	2	0
Brunsting & Postmes (2002)	.14	96	1	1	4.00	4	1	2	0
Brunsting & Postmes (2002)	.22	296	1	1	4.00	4	1	2	0
Brunsting & Postmes (2002)	.45	104	1	1	4.00	4	1	2	0
Corning & Myers (2002)	.32	224	1	1	4.50	3	1	2	0
De Weerd (1999)	.17	168	1	1	3.50	2	1	2	0
De Weerd (1999)	–.06	168	1	1	3.50	2	2	2	0
Finkel et al. (1989)	.35	714	1	1	4.00	5	3	2	0
Finkel et al. (1989)	.50	501	1	1	4.00	5	3	2	0
Finkel et al. (1989)	.51	494	1	1	4.00	5	3	2	0
Finkel et al. (1989)	.27	714	1	1	4.00	5	3	2	0
Finkel et al. (1989)	.28	501	1	1	4.00	5	3	2	0
Finkel et al. (1989)	.41	494	1	1	4.00	5	3	2	0
Foster et al. (1994)	.31	82	1	2	5.00	3	1	1	1
Foster et al. (1994)	.31	82	1	2	5.00	3	1	1	1
Gill & Matheson (2006)	.25	108	2	2	5.00	3	1	1	1
Gill & Matheson (2006)	.51	108	1	2	5.00	3	1	1	1
Grant & Brown (1995)	.31	98	2	1	1.00	3	1	1	1
Grant & Brown (1995)	.61	98	2	1	1.00	3	1	1	1
Grant & Brown (1995)	.41	98	2	1	1.00	3	1	1	1
Hafer & Olson (1993)	.45	70	1	2	5.00	3	2	2	0
Kawakami & Dion (1993)	–.02	113	1	1	1.50	2	1	2	0
Kawakami & Dion (1993)	–.10	113	1	1	1.50	2	1	2	0
Kelly & Kelly (1994)	.13	330	1	1	4.50	4	2	2	0
Koomen & Fränkel (1992)	.31	81	1	2	5.00	5	1	2	0
Martin et al. (1984)	.15	90	1	2	5.00	3	1	2	1
Olson et al. (1995)	.32	50	1	2	4.50	3	2	2	0
Olson et al. (1995)	.56	62	1	2	4.50	3	2	1	0
Opp (1986)	.23	390	2	1	3.00	4	3	2	0
Opp (1988)	.58	121	1	1	4.00	4	3	2	0
Opp (1988)	.39	121	1	1	4.00	4	3	2	0
Opp (2000)	.17	720	1	1	4.00	5	1	2	0
Pennekamp et al. (2006)	.44	132	1	2	5.00	5	1	2	0
Postmes et al. (2007)	.45	85	1	2	5.00	3	1	1	0

(Appendixes continue)

Table A1 (continued)

Source	<i>r</i>	<i>N</i>	Type injustice	<i>I/S</i>	<i>I-S</i>	Type group	Type CA	Type method	Causality
Putman & Klandermans (2003)	.04	126	1	2	5.00	5	2	2	0
Putman & Klandermans (2003)	-.03	126	1	2	5.00	5	2	2	0
Putman & Klandermans (2003)	-.25	80	1	2	5.00	5	2	2	0
Putman & Klandermans (2003)	-.31	80	1	2	5.00	5	2	2	0
Roefs (2003)	.07	3,536	1	2	5.00	5	1	2	0
Roefs (2003)	.08	3,536	1	2	5.00	5	1	2	0
Sabucedo & Fernandez (2006)	.58	261	2	1	4.50	4	1	2	0
Sabucedo & Fernandez (2006)	.28	413	2	1	3.00	4	1	2	0
Sani (2007)	.11	261	1	2	5.00	5	1	2	0
Schmitt (2006)	.07	1,276	1	2	5.00	5	1	2	0
Smith et al. (2006)	.29	296	1	1	4.00	2	1	2	0
Smith et al. (2006)	.37	299	2	1	4.00	2	1	2	0
Stürmer (2000)	.33	68	1	2	5.00	4	1	2	0
Stürmer & Simon (2004b)	.16	199	1	2	5.00	4	2	2	1
Stürmer et al. (2003)	-.02	132	1	2	5.00	4	1	2	0
Tropp & Brown (2004)	.11	126	1	2	5.00	3	1	2	0
Tropp & Brown (2004)	.36	161	1	2	5.00	3	1	2	0
Tropp et al. (2006)	.41	161	1	2	5.00	3	6	2	0
Tropp & Wright (2001)	.45	162	1	2	5.00	3	1	2	0
Useem (1980)	.40	468	1	2	4.00	5	2	2	0
Van Stekelenburg (2006)	.28	231	2	1	3.50	2	2	2	0
Van Stekelenburg (2006)	.18	231	1	1	3.50	2	2	2	0
Van Stekelenburg (2006)	.42	202	2	1	3.00	4	2	2	0
Van Stekelenburg (2006)	.41	202	1	1	3.00	4	2	2	0
Van Zomeran et al. (2004)	.52	43	2	1	1.50	2	1	1	1
Van Zomeran et al. (2004)	.21	43	1	1	1.50	2	1	1	1
Van Zomeran et al. (2004)	.38	41	2	1	1.00	2	1	1	1
Van Zomeran et al. (2004)	.04	41	1	1	1.00	2	1	1	1
Van Zomeran et al. (2004)	.62	68	2	1	1.00	2	1	1	1
Van Zomeran et al. (2004)	.54	68	1	1	1.00	2	1	1	1
Van Zomeran et al. (2004)	.58	91	2	1	1.00	2	1	1	1
Van Zomeran et al. (2004)	.09	91	1	1	1.00	2	1	1	1
Van Zomeran (2006)	.49	101	2	1	1.00	2	1	1	0
Van Zomeran (2006)	.39	101	1	1	1.00	2	1	1	0
Van Zomeran (2006)	.61	90	2	1	1.00	2	1	1	1
Van Zomeran (2006)	.37	90	1	1	1.00	2	1	1	1
Van Zomeran et al. (in press)	.60	45	2	1	1.00	2	1	1	0
Van Zomeran et al. (in press)	.65	45	1	1	1.00	2	1	1	0
Van Zomeran et al. (in press)	.42	62	2	1	1.00	2	1	2	0
Van Zomeran et al. (in press)	.46	62	1	1	1.00	2	1	2	0
Van Zomeran et al. (in press)	.56	114	2	1	1.00	2	1	2	0
Van Zomeran et al. (in press)	.35	114	1	1	1.00	2	1	2	0
Van Zomeran & Spears (2007a)	.60	144	2	1	1.00	2	1	1	0
Van Zomeran & Spears (2007a)	.54	206	2	1	1.00	2	1	1	0
Van Zomeran & Spears (2007a)	.57	158	2	1	1.00	2	1	1	0
Van Zomeran & Spears (2007b)	.72	54	2	1	1.00	2	1	1	0
Van Zomeran & Spears (2007b)	.38	54	1	1	1.00	2	1	1	0
Van Zomeran & Spears (2007b)	.42	81	2	1	1.00	2	1	1	0
Van Zomeran (2006)	.44	98	2	1	1.00	2	1	1	0
Van Zomeran (2006)	.29	98	1	1	1.00	2	1	1	0
Van Zomeran et al. (2007)	.54	79	2	1	1.00	2	1	1	0
Van Zomeran et al. (2007)	.41	79	1	1	1.00	2	1	1	0
Walker & Mann (1987)	.28	64	1	1	4.50	2	3	2	0
Wenzel (2000)	.34	179	1	2	5.00	5	1	2	0
Wenzel (2000)	.39	179	1	2	5.00	5	1	2	0
Worchel et al. (1974)	.35	148	1	1	3.00	4	1	2	0
Worchel et al. (1974)	.39	148	1	1	3.00	4	1	2	0
Wright (1997)	.45	73	2	2	5.00	3	1	1	1
Wright (1997)	.30	41	1	2	5.00	3	1	1	1
Wright & Tropp (2001)	.40	301	1	2	5.00	3	1	2	0
Wright & Tropp (2001)	.48	301	2	2	5.00	3	1	2	0

*Note.* Source = study from which the effect is derived; *r* = effect size; *N* = sample size; type injustice = non-affective (= 1) or affective (= 2) identity; *I/S* = dichotomous measure of incidental (= 1) or structural (= 2) disadvantage; *I-S* = continuous measure of incidental (= 1) to structural (= 5) disadvantage; type group = vocation groups (= 2), stigmatized groups (= 3), political groups (= 4), and nationality or ethnicity groups (= 5); type CA = non-behavioral measure of collective action (= 1), a behavioral measure (= 2), or a mix (= 3); type method = experimental (= 1) or non-experimental research (= 2); causality = causal inferences cannot be made (= 0), or can be made (= 1).

Appendix B

Table B1

Table of Included Studies, Effect Sizes, Sample Sizes, and Key Moderators for the Meta-Analysis on Efficacy–Collective Action

Source	<i>r</i>	<i>N</i>	<i>I/S</i>	<i>I-S</i>	Type group	Type CA	Type method	Causality
Axelrod & Newton (1991)	.36	288	1	3.00	4	2	2	0
Blader (2007)	.80	167	1	3.00	2	1	2	0
Blader (2007)	.70	121	1	3.00	2	1	2	0
Brunsting & Postmes (2002)	.28	62	1	4.00	4	1	2	0
Brunsting & Postmes (2002)	.22	95	1	4.00	4	1	2	0
Brunsting & Postmes (2002)	.43	296	1	4.00	4	1	2	0
Brunsting & Postmes (2002)	.43	104	1	4.00	4	1	2	0
Comning & Myers (2002)	.46	224	1	4.50	3	1	2	0
De Weerd (1999)	.36	168	1	3.50	2	1	2	0
De Weerd (1999)	.00	168	1	3.50	2	2	2	0
Finkel et al. (1989)	.36	714	1	4.00	5	3	2	0
Finkel et al. (1989)	.54	501	1	4.00	5	3	2	0
Finkel et al. (1989)	.48	494	1	4.00	5	3	2	0
Finkel et al. (1989)	.13	714	1	4.00	5	3	2	0
Finkel et al. (1989)	.21	501	1	4.00	5	3	2	0
Finkel et al. (1989)	.35	494	1	4.00	5	3	2	0
Fox et al. (2000)	.00	131	1	3.00	4	1	2	0
Fox & Schofield (1989)	.12	102	1	3.00	4	1	2	0
Fox & Schofield (1989)	.20	102	1	3.00	4	2	2	0
Hornsey et al. (2006)	.32	231	1	3.50	4	1	2	0
Horvath (1996)	.31	172	1	3.50	4	2	2	0
Kelly & Breinlinger (1995)	.55	383	2	5.00	3	1	2	0
Kelly & Breinlinger (1995)	.47	383	2	5.00	3	2	2	0
Kelly & Kelly (1994)	.35	330	1	4.50	4	2	2	0
Klandermans (1986)	.28	74	1	4.00	4	1	2	0
Klandermans (1986)	.46	74	1	4.00	4	1	2	0
Klandermans (1986)	.19	108	1	4.00	4	1	2	0
Klandermans (1986)	.29	108	1	4.00	4	1	2	0
Langner (2006)	.05	124	2	5.00	3	1	2	0
Liss et al. (2004)	.28	215	2	5.00	3	2	2	0
Martin et al. (1984)	.15	90	2	5.00	3	1	2	1
Martin et al. (1984)	.25	90	2	5.00	3	1	2	1
McKenzie-Mohr et al. (1992)	.53	175	1	3.00	4	2	2	0
Opp (2000)	.42	720	1	4.00	5	1	2	0
Putman & Klandermans (2003)	-.03	126	2	5.00	5	2	2	0
Putman & Klandermans (2003)	.15	80	2	5.00	5	2	2	0
Roefs (2003)	.15	3,536	2	5.00	5	1	2	0
Roefs (2003)	.10	3,536	2	5.00	5	1	2	0
Simon et al. (1998)	.47	94	2	4.00	4	1	2	0
Simon et al. (1998)	.50	117	2	5.00	4	1	1	0
Stürmer (2000)	.17	68	2	5.00	4	1	2	0
Stürmer & Simon (2004a)	.18	199	2	5.00	4	2	2	1
Stürmer et al. (2003)	.20	134	2	5.00	4	1	2	0
Tropp et al. (2006)	.22	161	2	5.00	3	3	2	0
Van Stekelenburg (2006)	.06	234	1	3.50	2	2	2	0
Van Stekelenburg (2006)	-.01	207	1	3.00	4	2	2	0
Van Zomeren et al. (2004)	.45	43	1	1.00	2	1	1	0
Van Zomeren et al. (2004)	.17	41	1	1.00	2	1	1	0
Van Zomeren et al. (2004)	.36	68	1	1.00	2	1	1	0
Van Zomeren et al. (2004)	.30	91	1	1.00	2	1	1	0
Van Zomeren (2006)	.54	101	1	1.00	2	1	1	1
Van Zomeren (2006)	.43	90	1	1.00	2	1	1	0
Van Zomeren et al. (in press)	.73	45	1	1.00	2	1	1	0
Van Zomeren et al. (in press)	.24	62	1	1.00	2	1	2	0
Van Zomeren et al. (in press)	.27	114	1	1.00	2	1	2	0
Van Zomeren & Spears (2007a)	.46	144	1	1.00	2	1	1	0
Van Zomeren & Spears (2007a)	.42	206	1	1.00	2	1	1	0
Van Zomeren & Spears (2007a)	.46	158	1	1.00	2	1	1	0
Van Zomeren & Spears (2007b)	.39	54	1	1.00	2	1	1	0
Van Zomeren & Spears (2007b)	.30	81	1	1.00	2	1	1	0
Van Zomeren (2006)	.45	103	1	1.00	2	1	1	1
Van Zomeren et al. (2007)	.70	79	1	1.00	2	1	1	0
Wolf et al. (1986)	.38	233	1	3.00	4	1	2	0
Wolf et al. (1986)	.44	233	1	3.00	4	2	2	0

Note. Source = study from which the effect is derived; *r* = effect size; *N* = sample size; *I/S* = dichotomous measure of incidental (= 1) or structural (= 2) disadvantage; *I-S* = continuous measure of incidental (= 1) to structural (= 5) disadvantage; type group = vocation groups (= 2), stigmatized groups (= 3), political groups (= 4), and nationality or ethnicity groups (= 5); type CA = non-behavioral measure of collective action (= 1), a behavioral measure (= 2), or a mix (= 3); type method = experimental (= 1) or non-experimental research (= 2); causality = causal inferences cannot be made (= 0), or can be made (= 1).

## Appendix C

Table C1

*Table of Included Studies, Effect Sizes, Sample Sizes, and Key Moderators for the Meta-Analysis on Identity–Collective Action*

Source	<i>r</i>	<i>N</i>	Type ID	<i>I/S</i>	<i>I–S</i>	Type group	Type CA	Type method	Causality
Blader (2007)	.21	121	1	1	3.00	2	1	2	0
Blader (2007)	.82	121	2	1	2.00	2	1	2	0
Boen (2000)	.11	274	1	2	5.00	5	1	2	1
Boen (2000)	.22	138	1	2	5.00	5	1	2	0
Boen (2000)	.10	73	1	2	5.00	5	1	2	1
Brunsting & Postmes (2002)	.27	62	2	1	4.00	4	1	2	0
Brunsting & Postmes (2002)	.09	96	2	1	4.00	4	1	2	0
Brunsting & Postmes (2002)	.34	295	2	1	4.00	4	1	2	0
Brunsting & Postmes (2002)	.62	103	2	1	4.00	4	1	2	0
Cameron & Nickerson (2006)	.54	135	2	1	3.50	4	1	2	0
Cameron & Nickerson (2006)	.10	135	2	1	3.50	4	1	2	0
Cronin & Smith (2006)	.10	161	1	1	4.00	2	1	2	0
Cronin & Smith (2006)	.50	161	2	1	4.00	2	1	2	0
Deaux et al. (2006)	.52	113	1	2	5.00	5	1	2	0
Deaux et al. (2006)	.48	90	1	2	5.00	5	1	2	0
Deaux et al. (2006)	.51	114	1	2	5.00	5	1	2	0
Deaux et al. (2006)	.62	93	1	2	5.00	5	1	2	0
De Weerd & Klandermans (1999)	.20	168	1	1	3.50	2	1	2	0
De Weerd & Klandermans (1999)	.17	168	1	1	3.50	2	2	2	0
Duncan & Stewart (2007)	.35	248	2	2	5.00	4	2	2	0
Duncan & Stewart (2007)	.48	105	2	2	5.00	4	2	2	0
Duncan & Stewart (2007)	.15	857	2	2	5.00	4	2	2	0
Goslinga (2004)	.36	196	2	1	4.50	4	1	2	0
Goslinga (2004)	.28	196	2	1	4.50	4	1	2	0
Goslinga (2004)	.14	196	2	1	4.50	4	1	2	0
Hornsey et al. (2006)	.63	231	2	1	3.50	4	1	2	0
Kawakami & Dion (1993)	.46	113	1	1	1.50	2	1	2	1
Kawakami & Dion (1993)	.00	113	1	1	1.50	2	1	2	1
Kelly & Breinlinger (1995)	.69	383	2	2	5.00	3	1	2	0
Kelly & Breinlinger (1995)	.58	383	2	2	5.00	3	2	2	0
Kelly & Kelly (1994)	.71	330	2	1	4.50	4	2	2	0
Klandermans (1989)	.31	127	2	1	4.00	4	2	2	0
Klandermans et al. (2002)	.26	415	1	1	4.00	2	1	2	1
Klandermans et al. (2002)	.11	415	1	1	4.00	2	2	2	1
Klandermans et al. (2002)	.27	415	2	1	4.00	2	1	2	1
Klandermans et al. (2002)	.28	415	2	1	4.00	2	2	2	1
Langner (2006)	.32	58	2	2	5.00	3	2	2	0
Langner (2006)	.26	124	2	2	5.00	3	1	2	0
Lindly & Nario-Redmond (2004)	.82	82	1	2	5.00	3	1	1	0
Liss et al. (2004)	.28	215	2	2	5.00	3	2	2	0
Pennekamp et al. (2006)	.38	136	1	2	5.00	5	1	2	0
Postmes et al. (2007)	.35	85	1	2	5.00	3	1	1	0
Postmes et al. (2007)	.46	228	1	2	5.00	3	1	1	0
Postmes (2001)	.50	205	1	2	5.00	3	1	1	0
Putman & Klandermans (2003)	–.23	126	1	2	5.00	5	2	2	0
Putman & Klandermans (2003)	.00	80	1	2	5.00	5	2	2	0
Sani (2006)	.48	262	1	2	5.00	5	1	2	0
Simon et al. (1998)	.57	93	2	2	4.00	4	1	2	0
Simon et al. (1998)	.31	93	1	2	4.00	4	1	2	0
Simon et al. (1998)	.64	117	2	2	5.00	4	1	1	1
Simon et al. (1998)	.40	117	1	2	5.00	4	1	1	1
Simon et al. (2007)	.34	191	2	2	5.00	4	2	2	1
Smith et al. (2006)	.21	329	2	1	4.00	2	1	2	0
Stürmer (2000)	.39	68	2	2	5.00	4	1	2	0
Stürmer (2000)	.22	68	1	2	5.00	4	1	2	0
Stürmer & Simon (2004a)	.28	199	2	2	5.00	4	2	2	1
Stürmer & Simon (2004a)	.17	199	1	2	5.00	4	2	2	1
Stürmer et al. (2003)	.40	136	2	2	5.00	4	1	2	0
Stürmer et al. (2003)	.27	136	1	2	5.00	4	1	2	0
Tropp & Brown (2004)	.31	126	1	2	5.00	3	1	2	0
Tropp & Brown (2004)	.28	161	1	2	5.00	3	1	2	0
Tropp et al. (2006)	.64	161	2	2	5.00	3	1	2	0
Tropp & Wright (2001)	.32	162	1	2	5.00	3	1	2	0
Useem (1980)	.36	468	2	2	4.00	5	2	2	0



Table C1 (continued)

Source	<i>r</i>	<i>N</i>	Type ID	<i>I/S</i>	<i>I-S</i>	Type group	Type CA	Type method	Causality
Van Stekelenburg (2006)	.25	229	2	1	3.50	2	2	2	0
Van Stekelenburg (2006)	.28	184	2	1	3.00	4	2	2	0
Van Zomeran et al. (2004)	.39	43	1	1	1.00	2	1	1	0
Van Zomeran et al. (2004)	.27	41	1	1	1.00	2	1	1	0
Van Zomeran et al. (2004)	.30	68	1	1	1.00	2	1	1	0
Van Zomeran et al. (2004)	.29	91	1	1	1.00	2	1	1	0
Van Zomeran (2006)	.66	101	1	1	1.00	2	1	1	0
Van Zomeran (2006)	.37	90	1	1	1.00	2	1	1	0
Van Zomeran et al. (in press)	.28	45	1	1	1.00	2	1	1	1
Van Zomeran et al. (in press)	.39	62	1	1	1.00	2	1	2	0
Van Zomeran & Spears (2007a)	.41	144	1	1	1.00	2	1	1	0
Van Zomeran & Spears (2007a)	.48	206	1	1	1.00	2	1	1	0
Van Zomeran & Spears (2007a)	.50	158	1	1	1.00	2	1	1	0
Van Zomeran & Spears (2007b)	.23	54	1	1	1.00	2	1	1	0
Van Zomeran & Spears (2007b)	.14	81	1	1	1.00	2	1	1	0
Van Zomeran (2006)	.61	97	1	1	1.00	2	1	1	0
Van Zomeran et al. (2007)	.30	79	1	1	1.00	2	1	1	0
Veenstra & Haslam (2000)	.50	313	2	1	4.00	4	1	1	1
Wenzel (2000)	.30	179	1	2	5.00	5	1	2	0
Wright & Tropp (2001)	.32	301	1	2	5.00	3	1	2	0

*Note.* Source = study from which the effect is derived; *r* = effect size; *N* = sample size; type ID = unpoliticized (= 1) or politicized (= 2) identity; *I/S* = dichotomous measure of incidental (= 1) or structural (= 2) disadvantage; *I-S* = continuous measure of incidental (= 1) to structural (= 5) disadvantage; type group = vocation groups (= 2), stigmatized groups (= 3), political groups (= 4), and nationality or ethnicity groups (= 5); type CA = non-behavioral measure of collective action (= 1), or a behavioral measure (= 2); type method = experimental (= 1) or non-experimental research (= 2); causality = causal inferences cannot be made (= 0), or can be made (= 1).

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