Status Hierarchies and the Organization of Collective Action

Brent Simpson, Robb Willer and Cecilia L. Ridgeway

Sociological Theory 2012 30: 149
DOI: 10.1177/0735275112457912

AMERICAN SOCIOLOGICAL ASSOCIATION

Sociological Theory
30(3) 149–166

DOI: 10.1177/0735275112457912
http://stx.sagepub.com
SAGE

Status Hierarchies and the Organization of Collective Action

Brent Simpson[1], Robb Willer[2], and Cecilia L. Ridgeway[3]

Abstract

Most work on collective action assumes that group members are undifferentiated by status, or standing, in the group. Yet such undifferentiated groups are rare, if they exist at all. Here we extend an existing sociological research program to address how extant status hierarchies help organize collective actions by coordinating how much and when group members should contribute to group efforts. We outline three theoretically derived predictions of how status hierarchies organize patterns of behavior to produce larger public goods. We review existing evidence relevant to two of the three hypotheses and present results from a preliminary experimental test of the third. Findings are consistent with the model. The tendency of these dynamics to lead status-differentiated groups to produce larger public goods may help explain the ubiquity of hierarchy in groups, despite the often negative effects of status inequalities for many group members.

Keywords

status, collective action, coordination, hierarchy, public goods

Past models of collective action typically have addressed how collective actions emerge among homogeneous groups of undifferentiated actors (for important exceptions, see Clark, Clark, and Polborn 2006; Granovetter 1978; Marwell and Oliver 1993; Oliver, Marwell, and Texeira 1985). From such an approach, collective efforts entail various social dilemmas, including the challenges of motivating individuals to make costly contributions and the coordination of group members' efforts in ways that are complementary and productive. Human groups, however, are far from homogeneous. Specifically, research finds that groups tend to spontaneously manifest hierarchies of differentiation with respect to status (Bales 1970) and that such hierarchies shape the actions of group members in patterned ways (Berger et al. 1977), having powerful and lasting effects on group dynamics and group decisions (Ridgeway and Walker 1995). Do status hierarchies, and the patterns of behavior they create, help groups solve the social dilemmas involved in collective action?

Here we suggest a novel link between status hierarchies and group productivity based on the coordination of costly contributions to group efforts. The literature on status is far-reaching and thus encompasses a wide array of research programs both within (e.g., Goode 1978; Jasso 2001; Milner 1994) and outside

[1]University of South Carolina, Columbia, SC, USA
[2]University of California, Berkeley, CA, USA
[3]Stanford University, Stanford, CA, USA

Corresponding Author:
Brent Simpson, University of South Carolina, Department of Sociology, Columbia, SC 29208, USA
Email: bts@sc.edu

(e.g., Anderson et al. 2001; Halevy, Chou, and Galinsky 2011; Marmot 2004) of sociology. Our arguments incorporate a number of insights from the broader literature on status, relying most heavily on status characteristics theory (Berger et al. 1977). We propose that status hierarchies disambiguate appropriate sequences and levels of contribution, telling group members who is to contribute to collective efforts and when. This model therefore points to a fundamental duality to status hierarchies, namely that while they operate as systems of inequality with damaging effects on individuals' self-conceptions and respect in groups, they can also have advantageous outcomes, structuring group efforts in functional, productive ways (see also Davis and Moore 1945; Magee and Galinsky 2008; Tilly 1999).

STATUS AND THE ORGANIZATION OF COLLECTIVE ACTION

Investigation into status differentiation and collective action is not new, and recent theory and research have yielded a number of insights into how contributions to collective action generate status differences (Hardy and van Vugt 2006; Milinski, Semmann, and Krambeck 2002; Willer 2009). In these models, status is sometimes viewed as a reward, or selective incentive, given to those who contribute to group goals (Willer et al. 2010).

Although less is known about how existing status differences between group members affect collective action, recent work suggests that status differentiation can benefit groups whose individuals have an incentive to coordinate their actions (Clark et al. 2006; see also Ermakoff 2008). For instance, Clark et al. (2006) note that higher-status actors, due to their greater prominence and visibility, are more noticeable than their lower-status counterparts. Thus, a rational strategy for a group hoping to coordinate on a common line of action may be to follow the lead of the highest status members. Results from several recent experiments (Eckel and Wilson 2007; de Kwaadsteniet and van Dijk 2010) are consistent with notion that status acts as a coordination mechanism and can thus help groups solve such problems.

Insights into how status can improve coordination are important because a wide range of research shows that extant status differences are quickly imported into group settings, even when the basis of status differentiation is not directly relevant to the group's goals (Ridgeway and Walker 1995). Yet, while coordinating members' actions is essential for successful collective action, it is not the only problem that collective action groups must overcome. The approach outlined in the remainder of this paper addresses how status differentiation can help groups solve not only coordination problems but also other problems posed by collective action, including sequencing contributions in productive ways and discouraging free-riding. Thus, we argue that status differences will have important effects on all stages of collective action. Consider, for instance, collective action's so-called "start-up" problem (Heckathorn 1996; Marwell and Oliver 1993). The early stages of collective action usually require a critical mass of actors whose contributions get the action off the ground (Oliver et al. 1985). But potential early contributors face the possibility that others will not follow through with subsequent contributions, thus making the early contributions for naught. How do early contributors overcome this concern? Anticipating the work proposed here, Marwell and Oliver (1993:182) note that early contributors may "consider not only the direct effect of their contributions on the collective good, but also the effect of their contributions on the likelihood of others' contributions."[1] Others have acknowledged the significance of interpersonal influence for the mobilization of collective action (e.g., Ermakoff 2008; McAdam 1988). But, to date, no theory has been presented for predicting how the social structure of groups affects the influence processes in collective action mobilization.

Here we analyze the effects of a group's status structure on these influence processes. We do so by bridging two research programs—status characteristics theory and collective action research—to address how status differences in newly formed groups can solve collective action problems by organizing patterns of contribution to collective action. As explained later, we approach this issue via three simple and interrelated research questions: (1) How does a person's relative status affect *when* she gives to a collective action? (2) How does her status affect *how much* she gives? (3) How does her status influence how much *others* give? These three questions deal respectively with the initiation of, contributions to, and continuation

of collective action. To address these questions, we begin with a brief overview of collective action problems. We then briefly present status characteristics theory and show how the theory can explain a variety of important issues relevant to collective action, without any modification or scope extension. We then outline existing evidence relevant to the three research questions. In the case where no such evidence exists, we present new experimental results that support the argument.

COLLECTIVE ACTION PROBLEMS

A central area of research in social science concerns solutions to various problems in the organization of collective action. As noted above, one problem faced by collective action groups is coordination. Groups encounter this problem in contexts where members benefit from acting only if a sufficient number of others also act (Chwe 2001). Groups often confront coordination problems during the early phases of collective action (Heckathorn 1996).

Another critical obstacle faced by collective action groups is the "free-rider problem." This dilemma emerges in settings where individuals can profit by not contributing to the public good, choosing instead to free ride on the contributions of others (Olson 1965). When many or all individuals withhold contribution, however, collective efforts fail and the group is worse off. Because of this tension between individual- and group-level interests, collective action represents a social dilemma where what is rational at the individual level, in the narrow economic sense, is irrational for the group as a whole.

Collective action problems are interesting for both their fundamental nature and their ubiquity. Individuals face collective action problems every day in their efforts to maintain productive workplace collaborations, fund charities, and organize social gatherings. We are further confronted with collective action problems in less mundane, more political and ethical arenas, such as our decisions to join a social movement, vote in elections, and refrain from crime or norm violations.

Despite the hurdles involved, we know that groups often do achieve collective action and, in doing so, produce public goods (Hardin 1982; Ostrom 1990). How do they do it and what are the conditions that make them most successful? With the exceptions of research outlined above, most prior research on collective action has tended to focus on the factors that motivate *individuals* to give to collective action. Our goal is different. We focus on how collective goods are secured *structurally*. We outline theoretically derived predictions of how status hierarchies organize patterns of behavior that solve collective action problems.

Status as a Solution to Collective Action Problems

In recent years, researchers from a variety of disciplines have begun to explain collective action contributions, and other "prosocial" behaviors, in terms of downstream reputational or status gains. Research on "indirect reciprocity" has shown that individuals who have behaved in a generous manner in one setting will tend to be rewarded by third parties in future interactions (Barclay 2004; Milinski et al. 2002; Wedekind and Milinski 2000; Willer 2009). Prior work has also shown that contributors to collective action are trusted more, are viewed as higher status, are the targets of more prosocial acts, and have greater interpersonal influence than noncontributors (Willer 2009).

Although much recent research has investigated the interplay of individuals' reputations and collective action contributions, the aforementioned studies focus on the effects of collective action contributions on individuals' status standing (see Sell 1997, discussed in detail below, for an exception). Our research is instead concerned with the effects of status standing on collective action contributions. This is significant because of the "start-up problem," that is, the difficulties involved in getting collective action off the ground via initial contributions (Heckathorn 1996; Marwell and Oliver 1993). Our application of status characteristics theory shows that not only the start-up problem but also the free-rider problem (which deals with subsequent contributions) becomes less problematic if we take into account how status differentiation in the group structures patterns of contributions to collective action.

STATUS CHARACTERISTICS AND SOCIAL INTERACTION

Status differences affect much of social life. People distinguish themselves and other interactants by gender, race, ethnicity, educational attainment, occupational prestige, physical attractiveness, and a host of other characteristics that affect their status standing (Jasso 2001; Milner 2004; Ridgeway and Walker 1995; Sauder, Lynn, and Podolny, forthcoming). These distinctions have wide-ranging effects on everything from individual health and life expectancy (Marmot 2004) to the structure of group interaction (Milner 1994). *Status characteristics theory* offers one account of how status inequalities give rise to predictable patterns of interaction in group contexts (Berger, Cohen, and Zelditch 1966; Berger et al. 1977).

The status characteristics research program has its roots in the early studies by Bales and colleagues (1970), Strodtbeck, James, and Hawkins (1957), and others which showed that newly formed groups quickly develop an internal power and prestige order and that participants' outside statuses shaped this order. Briefly, the theory includes a set of scope conditions (discussed below) and interrelated assumptions, along with a graph-theoretic modeling procedure.[2] These assumptions relate two different types of *status characteristics* to expectations for performance and task-group interaction. *Diffuse status characteristics* (e.g., race, gender, level of education) reflect social bases for discrimination and entail beliefs that one state of the characteristic (e.g., whites, men) is more valued than the other state (e.g., blacks, women). Diffuse status characteristics give rise to greater expectations of competence in a wide range of settings for those possessing the positively valued state of a given characteristic. *Specific status characteristics* (e.g., math or auto-repair ability) contain beliefs about competence in a more limited set of domains (e.g., in a group solving math problems or fixing a car). Although the effects of specific status characteristics are expected to be greatest in the relevant domain of expertise (a doctor performing surgery), they nonetheless are predicted to affect status standing and rates of influence in domains unrelated to the area of expertise as well (Berger et al. 1977).

The theory states that all status characteristics (diffuse or specific) that differentiate group members will become salient (saliency assumption). Importantly, the *burden of proof assumption* states that unless these status characteristics are explicitly dissociated from the task, actors will assume that they are task-relevant (Webster and Driskell 1978). Thus, interactants form expectations for the competence and usefulness of contributions for themselves and other group members based on all salient status information. For instance, if race is a status characteristic in the broader culture within which the group is interacting, actors will develop positive expectations for task performance for those who possess a positive state of the characteristic (e.g., white) and negative expectations for those who possess a negative state (e.g., black), unless these characteristics are explicitly disassociated from the task at hand. The remaining assumptions of the theory describe how multiple salient status characteristics combine in settings to give rise to aggregated performance expectations for all group members and how these expectations affect behavior.

As explained below, those group members for whom performance expectations are higher are granted more opportunities to perform, generate more performance outputs, and have their performance outputs more positively evaluated (Berger et al. 1977). In cases of disagreement about a given course of action for the group, higher-status actors are likely to exercise influence over the choices and opinions of other group members and are themselves less likely to be influenced by others' choices or opinions. Importantly, previous work has shown that these effects occur even when the status dimension along which actors are differentiated is unrelated to the task at hand.

For decades, status characteristics theory has been tested, refined, and extended to an increasing range of status phenomena (e.g., Berger et al. 1992; Berger, Rosenholtz, and Zelditch 1980; Berger, Wagner, and Zelditch 1985; Cohen 1994; Correll and Ridgeway 2003; Lovaglia et al. 1998; Ridgeway and Walker 1995; Thye 2000; Wagner and Berger 1993; Wagner, Ford, and Ford 1986; Webster and Foschi 1988). The result is a cumulative body of knowledge about the processes through which status standing affects and shapes group interaction. Below, we apply the theory to the organization of collective actions. Before doing so, we first show that collective action groups fall within the scope of the theory.

Status characteristics theory describes how status organizes interaction in task-oriented and collectively oriented groups (Berger et al. 1977; Troyer 2001). Task-oriented actors believe that success on a group task can be discerned from failure, and they value success over failure (Berger et al. 1977:95). Collectively oriented actors consider it necessary and legitimate to take into account others' behaviors in solving the task. Collective action groups generally satisfy these scope conditions.

First, consider task orientation. In collective actions, the difference between success (the valued outcome) and failure on the collective task is generally easily distinguished and observed (e.g., the presence or absence of a community garden; the continuation or dissolution of a public television station; a candidate being elected or not; a political demonstration being well-attended, etc.). Furthermore, in collective action situations, the public good being produced is by definition valued by all group members (Olson 1965). That is, all actors value collective action success and disvalue collective action failure. Thus, collective action groups are *task-oriented*. Collective action groups are also *collectively oriented*. A wide range of collective action studies have shown that when actors are deciding whether and how much to contribute to a public good, they take into account the amount that others have contributed or have agreed to contribute (see Fehr and Gintis 2007; Kollock 1998).

HOW DO STATUS DIFFERENCES ORGANIZE COLLECTIVE ACTIONS?

While collective action groups satisfy status characteristics theory's core scope conditions of task and collective orientation, embedded within these conditions is a third assumption which is, in effect, an additional scope condition of the theory: "Actors are assumed to believe that there exists a particular characteristic that is instrumental to the group task" (Berger et al. 1977:95). Group members expect that those who possess the high state of that characteristic will increase the chances of successful group outcomes. Considering how status-differentiated collective action groups meet this added condition helps explain how status differentiation mitigates collective action problems.

A Proactive Stance toward the Task

An array of characteristics may be instrumental to success in real-world collective action groups. For instance, successful social movements may require knowledge of political opportunity structures (McAdam, McCarthy, and Zald 1996; Tarrow 1994). Other collective actions can only succeed if one or more group members have the skills to effectively frame the goals of the group to the public in a positive light. But, we argue, for almost all collective action tasks, one characteristic in particular is central to group success. This is the characteristic of taking a *proactive rather than reactive stance* toward the achievement of the collectively valued outcome. By a proactive stance, we mean taking the lead to initiate and maintain contributions to the collective goal rather than reactively waiting for others to define what is appropriate behavior in the situation. This characteristic is instrumental to success because, as we explain in greater detail below, it provides a means by which the group can begin to solve the initial start-up problem in a collective action.

Prior work shows how the taking of a proactive versus reactive task stance in group settings is related to status standing. Conway, Pizzamiglio, and Mount (1996) provide evidence that widely shared cultural schemas of status relations associate a proactive versus reactive behavioral stance with higher- rather than lower-status actors. Similarly, developments in status characteristics theory link proactive versus reactive behavioral profiles with both cultural beliefs about status and expectations for the behavior of higher- versus lower-status actors (Berger, Ridgeway, and Zelditch 2002; Wagner and Berger 1997). Thus, we argue that higher-status individuals will be assumed to possess more proactive orientations, and lower-status individuals more reactive orientations, in public goods settings such as the one such as the one we study. Finally, acting proactively in a collective action setting entails contributing to the collective good despite risks that others will free ride. Thus, contributions in such settings also signal group motivation, as opposed to self-interest, which a number of studies have linked to high status (Ridgeway 1982; Willer 2009).

Our application of status characteristics theory suggests that the burden of proof process described earlier leads status differentiation to become connected to collective action contribution, specifically with higher-status actors taking more proactive stances. That is, we assume that when a status characteristic becomes salient and is not explicitly disassociated from the collective action task, it will evoke differentiated generalized expectations that become associated with the collective action task via the instrumental characteristic, such that actors with higher status characteristics will be expected to act more proactively to achieve task success. Appendix A depicts this process in graph-theoretic form. Because the experiment we outline below focuses on a diffuse characteristic (education), Appendix A gives the graph-theoretic representation of actors differentiated by a diffuse characteristic. But the theory should also apply to collective action groups in which members are differentiated by specific status characteristics.

Specifying How Status Shapes Collective Actions

Here we briefly describe the *behavioral sequences* through which status differences are expected to affect behaviors in collective action groups. The parts of behavioral sequences relevant to the present research are *action opportunities, performance outputs, evaluations of performance outputs*, and *influence* (Berger et al. 1977).

An *action opportunity* is an opportunity to contribute to the group goal. These opportunities may be "taken" by a given group member or "granted" by others. In collective action situations, action opportunities are chances to contribute resources to the collective action. *Performance outputs* are contributions to the group task. Thus, in the case of collective actions, a performance output is the contribution of resources to the collective action. Other group members make *evaluations* (positive or negative) of these performance outputs. The theory states that in collective action groups, all else being equal, group members will evaluate the contributions of high-status actors more favorably than those of lower-status actors.

Finally, we define *influence* as a socially induced modification of an opinion, expectation, or decision (see Willer, Lovaglia, and Markovsky 1997). In collective action settings, various types of influence may occur, for example, whether collective action should proceed and, if so, via what course. But we are especially interested in decisions about how much group members should contribute to an agreed-upon collective action. In this case, influence occurs when a person contributes more (or less) than he or she would have otherwise as a result of a contribution by another actor.

Status differences and performance expectations have pervasive effects on behavioral sequences (Berger et al. 1977). The theory implies that compared with those lower in status, high-status actors are granted more (and take more) action opportunities, make more task contributions (performance outputs), have their contributions evaluated more positively, and exercise more influence. We now turn to the question of how status orders—as manifested in these behavioral sequences—can organize collective actions.

Consider a collective action problem in which group members make sequential decisions about whether and how much to contribute (e.g., two academics deciding how much time and effort to invest in a joint project). Two issues are critical in such a process: *When* do specific group members give, and *how much*, if any, does each group member give? For instance, in a simple two-person group, one person must take the initiative and make the first contribution. The "first contributor" then decides how much she wishes to contribute. The first contributor's choice is then relayed to the second contributor, who makes her decision with full knowledge of the first contribution.

Now imagine that these two actors are differentiated by a single diffuse status characteristic, for example, occupational prestige. Status characteristics theory predicts that as long as it is not explicitly *disassociated* from the task, occupational prestige will come to be associated with the collective task through the burden of proof process discussed earlier. Thus, the high-status and low-status actors will hold different positions in the power and prestige order of the group in accordance with their standing on this characteristic.

We can specify the impact of these status differences on behavioral sequences, as it applies to collective action groups, as a set of hypotheses. Hypothesis 1 gives predictions for *taking* of action opportunities in status-differentiated groups. In collective action settings, action opportunities are opportunities to contribute

to the public good. A person who takes an action opportunity during the initial stages of collective action volunteers to make the initial contribution. Based on the above arguments linking high status to a proactive rather than reactive stance toward task accomplishment, we expect that higher-status actors will take more action opportunities.

- Hypothesis 1: Higher-status actors will be more likely than their lower-status counterparts to take the opportunity to make initial contributions to the collective action.

Hypothesis 1 is important because if status differences lead to initiation of collective action by higher-status actors, this offers a solution to collective action's start-up problem (Heckathorn 1996; Kollock 1998). Contributions to the collective good are risky, but high-status actors' early contributions reduce the risks for later contributors. Thus, Hypothesis 1 views status differentiation as an endogenous solution to the start-up problem in collective action.

In addition to the sequencing of contributions, we predict that status differences will affect the *amount* or *size* of contributions. As noted earlier, previous research has shown that higher-status actors are expected to make larger contributions to group tasks and have more influence over the decisions of others in the group. We expect the same pattern for contributions to collective actions. That is, higher-status actors are expected to contribute more (in the initial contribution stages) and have greater influence over others' subsequent contributions to collective actions than would lower-status actors had they contributed first.

- Hypothesis 2: Higher-status initial contributors will contribute more resources to the collective action than lower-status initial contributors.

Because lower-status actors are influenced by the decisions of higher-status actors (more than the reverse), we should expect the initial contributions predicted by the above hypotheses to have pronounced effects on subsequent contributions. Specifically, when the second contributor is lower status, we should expect his or her decision to be influenced by the initial contribution of the higher-status actor. Thus, the later contributions of lower-status actors should be similar to the initial contributions of higher-status actors. This is because contributions from high-status group members proactively define appropriate or legitimate levels of contributions to group goals to which lower-status members are expected to reactively respond. As a result, all other things being equal, larger contributions from high-status group members should lead others to give at higher rates than they would otherwise. Because higher-status actors are less influenced by lower-status actors' decisions, we expect that the initial contributions of those lower in status will have less influence on the subsequent contribution decisions of high-status actors.

We state this reasoning in terms of how subsequent contributions relate to initial contributions, based on status differences between initial and subsequent contributors. Specifically, when status differences exist, low-status subsequent contributors will be more apt to match the contributions of higher-status earlier contributors, compared with higher-status members who follow lower-status initial contributors. That is, the initial contribution has a greater effect on subsequent contributions when the initial contributor is higher in status.

- Hypothesis 3: Lower-status contributors will be more apt to match the contributions of higher-status initial contributors, compared with higher-status members who follow lower-status initial contributors.

The above hypotheses imply that higher-status actors will contribute first (Hypotheses 1), they will contribute at higher levels than lower-status initial contributors (Hypothesis 2), and they will influence others to contribute at similarly high levels (Hypothesis 3). Considered together, these hypotheses imply that status differences are predicted to facilitate the organization of more successful collective actions than would occur in the absence of status differences. More specifically, the above predictions suggest that

because status helps groups solve the start-up problem (Hypotheses 1 and 2) and the free-rider problem (Hypothesis 3), status-differentiated groups will be more productive than will groups that are not differentiated by status (i.e., the type of groups normally studied by collective action researchers). We return to this more general implication in the discussion section after we have established preliminary support for each of the specific hypotheses.

EMPIRICAL EVIDENCE

High-Status Contributors Give More and Influence Low-Status Contributors to Give More

Two existing studies (Kumru and Vesterlund 2010; Sell 1997) provide evidence relevant to our second and third hypotheses. Both studies meet the task orientation and collective orientation scope conditions.[3] That said, we emphasize that these studies were not designed specifically to test our hypotheses. Thus, our review of them is only meant to establish some provisional support for the theoretical arguments outlined above. After reviewing findings relevant to Hypotheses 2 and 3, we introduce a new experiment designed as a preliminary test of the first hypothesis.

A study of gender and contributions to public goods offers some suggestive evidence relevant to our second hypothesis (Sell 1997). As Sell noted, if gender acts as a status characteristic in groups, the gender composition of a group will influence member contributions to public goods. For instance, we should expect the highest contributions from males paired with females (compared with females paired with males, or with contributions in same-gender groups). According to the arguments outlined earlier, this is because males' higher status would lead them to take a more proactive stance to the task when paired with females, to be more willing to contribute despite the risks, and to expect that their higher contributions would influence females to contribute more in subsequent rounds. Consistent with the hypothesis, Sell found that males ostensibly paired with females cooperated at higher levels than participants in any other condition (including males paired with males, and females paired with males or females).

While consistent with our second hypothesis, Sell's findings can also be explained via other arguments (see Sell and Kuipers 2009). In addition, because Sell simulated the decisions of other group members, her results do not allow us to address whether (lower-status) females are influenced by males' higher contributions (Hypothesis 3). A more recent study by Kumru and Vesterlund (2010) experimentally created status differences and is therefore less amenable to alternative explanations. In addition, the study provides preliminary evidence relevant to address Hypothesis 3, that lower-status group members are influenced by the earlier contributions of those higher in status.

Kumru and Vesterlund (2010) randomly assigned participants to be high or low status, relative to other laboratory participants. In contrast to Sell's experiment, Kumru and Vesterlund investigated public goods in which group members made sequential decisions about how much of their private endowments to contribute to the public good. In half the groups, high-status participants were designated to make the first decision; in the remaining half, the low-status participant made the first decision. Those who made the initial decision about how much to contribute did so without any assurance of the second contributor's contribution. This information would then be relayed to the second contributor, who would decide how much of his or her private endowment to contribute to the public good. Contributions from the first movers are relevant to Hypothesis 2 whereas those from second movers speak to Hypothesis 3.

If high-status group members take a more proactive stance toward the collective action, we should observe higher contributions by high-status first contributors than low-status first contributors. And if status-based influence occurs in the way predicted by Hypothesis 3, we should observe higher contributions by second movers when they are low status relative to first movers. Consistent with these predictions, Kumru and Vesterlund found that high-status first movers contributed more than low-status first contributors and that lower-status second movers were substantially more likely to mimic the contributions of high-status first movers.

Does Status Inequality Organize Contributions?

The forgoing studies are consistent with the part of our theory linking extant status differences to patterns of contributions by high- and low-status group members. Specifically, groups in which high-status members make initial contributions to collective actions tend to be more productive than groups in which initial contributions are made by low-status members. Importantly, however, this more productive sequencing of contributions can only emerge if there is some mechanism by which high-status actors take the lead and initiate collective action. Groups could establish norms, institutions, or incentives that motivate or require high-status members to contribute first. But the creation of such institutions or incentives involves "second-order" collective action problems (Heckathorn 1989; Oliver 1993). As a result, it simply pushes the problem back one level.

Hypothesis 1 predicts that status structures will provide an endogenous solution to the sequencing of contributions, leading high-status actors to initiate collective action. These initial contributions by high-status actors will, in turn, set in motion the pattern of contributions outlined in the studies by Sell and by Kumru and Vesterlund.

Hypothesis 1 is the only prediction outlined above for which there is no existing evidence in the literature, yet support for this hypothesis is critical to our claim that status differentiation can mitigate collective action problems. We therefore designed a simple experiment as a preliminary test of the prediction that high-status actors initiate collective action situations. As explained in greater detail below, when coupled with evidence relevant to Hypotheses 2 and 3, support for Hypothesis 1 would also support the more general implication outlined above, that status-differentiated groups produce larger public goods.

Preliminary Evidence for Hypothesis 1

Here we offer a brief explanation of the experiment designed to test Hypothesis 1. Appendix B gives a more detailed account of the participants and procedures. Participants ($N = 164$) were university undergraduates who participated in a public goods dilemma with two simulated actors whom they were told were both graduate students (in the low status condition) or high school students (in the high status condition). Thus, group members were differentiated by a single diffuse characteristic, education. This method of manipulating relative status has been used in a number of previous studies of status (Lovaglia and Houser 1996; Markovsky, Smith, and Berger 1984; Thye 2000).

Most public goods studies, including those reviewed above, present participants with a discrete decision about how much of a private fund to contribute to a public good. To investigate the initiation of collective action, however, we presented participants with a real-time contribution opportunity, where any group member could decide to make a contribution at any point before the allotted time expired. All members were immediately notified of any contribution by any group member. Simulated group members were programmed with a delay, such that they did not initially contribute to the group fund. This design allowed us to address whether high-status participants would be most likely to take the lead in contributing their personal endowments to the group fund.[4]

Consistent with Hypothesis 1, those randomly assigned to the high status condition were more likely than their low-status counterparts to take the lead in initiating provision of the public good. While 30.5% of low-status participants made the initial contribution, 46.3% of high-status participants did so. Thus, those in the high status condition were nearly 50% more likely to initiate collective action, compared with those in the low status condition, $\chi^2 = 4.36$, $p < .05$.

DISCUSSION AND DIRECTIONS FOR FUTURE RESEARCH

Prior work reviewed above suggests that when high-status actors make contributions in the early stages of collective actions, they contribute at higher levels and influence low-status counterparts to follow with larger contributions. Yet these status-based effects can only take hold and affect the provision of public

goods if high-status actors actually initiate collective action. As noted earlier, one possible mechanism through which this might occur is via institutions or incentives that sequence contribution decisions based on members' status differences. The tendency for collective action groups to advertise early contributions from celebrities (e.g., actors, athletes, musicians, former politicians; see Meyer and Gamson 1995) arguably reflects such a mechanism. Notwithstanding such cases, however, the development of institutions and norms for high-status actors to contribute first could pose higher-order collective action problems.

Our application of status characteristics theory points to an endogenous solution to the sequencing of collective action contributions. Findings from a new laboratory experiment provided preliminary support for our argument that high-status group members will initiate collective action, thus attenuating the start-up problem that often plagues group efforts. As explained earlier, when considered together with prior research showing that low-status members are influenced by the initial contributions of high-status members, this finding suggests that status-differentiated groups will tend to be more successful in acting collectively.

The arguments and findings outlined in this paper complement an emerging body of work on the relationship between status and collective action (Hardy and van Vugt 2006; Willer 2009). Most of this research treats status as a *consequence* of contributions, by demonstrating how status and reputational benefits accrue to those who contribute to collective actions (Willer 2009). More generally, research across the social sciences is uncovering the many reputational benefits that result from prosociality (see Willer et al. 2010). Whereas the focus of this prior work is on the consequences of contributions for members' status, the arguments and evidence outlined in this paper highlight the causal impact of status differentiation on contributions and collective action (see also Clark et al. 2006; Ermakoff 2008; Sell 1997).

Furthermore, the present research complements a larger body of work on the potentially beneficial effects of hierarchical differentiation for group functioning (e.g., Davis and Moore 1945; Tilly 1999). The majority of research on status differences has emphasized their role as a harmful basis of inequality (e.g., Cohen 1993; Marmot 2004; Milner 2004). This focus is quite understandable given the many documented negative effects of status inequalities for influence in groups (Moore 1968), feelings of respect (Anderson et al. 2001), group decision making (Moscovici and Nemeth 1974), academic performance (Lovaglia et al. 1998), and earnings (Ridgeway 1997), among other outcomes. Furthermore, while many bases of status differentiation (e.g., education and competence) are construable as merit-based, other bases (e.g., race and gender) reflect dimensions of discrimination in the larger society (Jasso 2001). Moreover, even when status differentiation leads to coordinated group action, the result may be detrimental to the group (Ermakoff 2008). As a result, the typical view in sociology of the effects of status inequality on groups and their members is understandably quite negative.

Nonetheless, an important strain of social thought has also pointed to the potential group benefits of status-based differentiation (de Kwaadsteniet and van Dijk 2010; Halevy et al. 2011; Magee and Galinsky 2008). This literature highlights various ways in which status hierarchies may enhance group productivity, and recently theory and research have emphasized the specific role of status as an incentive that encourages and rewards (Willer 2009). Other approaches have emphasized the roles of leadership (van Vugt and De Cremer 1999), a division of labor (Halevy et al. 2011), and heterogeneity of resources and interests (Marwell and Oliver 1993). Our research extends this body of work by highlighting the ways in which status hierarchies serve to organize costly collective actions, disambiguating which group members should contribute, when they should, and how much.

Because our argument linking status to the organization of collective action is embedded in a well-established theoretical research program, it comes with an array of potential applications and extensions. For instance, thinking beyond the simple status structures considered above, the argument suggests that status hierarchies are influenced by both the type and number of status differences between group members (see Ridgeway and Walker 1995). Specifically, collective action groups differentiated by status characteristics more relevant to the group's goals, or by multiple (consistent) status characteristics, will likely evidence stronger status-related processes. An important question for future research, however, is whether groups that experience excessive status differentiation may fail to experience the sense of group identification

or "we-ness" known to positively affect collective action. (See Kalkhoff and Barnum [2000] for research on how status differences interact with group identification to affect influence in task groups.)

Future research should also address other likely moderators of the link between status inequalities and collective action. For instance, as a first step we scope-limited our arguments to *task-oriented* groups whose members have similar interests in successful collective action. Our arguments thus do not necessarily apply to contexts in which actors vary significantly in their interest in the public good. In such settings, greater interest in the collective endeavor might lead a lower-status individual to contribute first and at high levels. When this is the case, it is likely that lower-status initial contributors will exert low levels of influence over higher-status group members, and the group may struggle to produce the public good as a result. Indeed, by giving early in the collective action, lower-status individuals may inadvertently stigmatize contributing as a low-prestige activity. This logic suggests that the effect of status differentiation on successful collective action will be most positive where all individuals value the public good equally or where the higher-status individuals value it more but least effective where the lower-status individuals value it relatively more.

While we have primarily focused on the behavioral mechanisms through which status differences affect collective actions, future research should also investigate the evaluative and affective processes through which these behaviors occur. For instance, a key assumption in our argument is that status is linked to collective action through expectations for higher-status members to take a proactive rather than reactive stance toward attaining the collective good, despite the risks. This assumption is consistent with previous research and theory linking status with proactive versus reactive task behavior (Berger et al. 2002; Conway et al. 1996). A proactive stance in a collective action situation is also likely to signal group motivation that further reinforces status (Willer 2009). The experiments we outlined above, however, did not directly demonstrate that a proactive task stance mediated the impact of status on contributions. Establishing empirical evidence for the theorized intervening processes is an important goal for future work.

Furthermore, as noted earlier, status approaches suggest that the contributions of those high in status will be evaluated more favorably. This tendency may be magnified in real-world collective actions, as differences in the types of members' contributions—from monetary resources to time—can make direct comparisons of their contributions difficult. The incommensurability of contributions may increase the likelihood that contributions by high-status actors will be viewed as more important to the group's goals or that their contributions will be viewed as most critical to the success of collective action.

In addition to addressing the effects of status structures on contributions to collective action, the reward expectations branch (Berger et al. 1985; Cook 1975) of status characteristics theory may yield insights into how status differentiation affects the spoils of collective action. Most research on collective action assumes that collective goods are nonexcludable; that is, they cannot be withheld from those who contribute less or not at all. However, groups may offer selective incentives to (larger) contributors, including increased status (Olson 1965; Willer 2009). These selective incentives may vary according to the status of contributors and, by extension, the perceived value of their contributions. If, as noted above, contributions from high-status members are evaluated more positively, group members may come to expect that the higher status deserve larger rewards from collective action.

As noted by Willer (2009), the processes just described can produce virtuous cycles of contributions, with initial status differences increasing as higher-status actors gain further status through their continued giving and influence over others' contributions. One question for future research is whether these status differences come to form the basis of leadership structures, or the conditions under which informal status structures become formalized and institutionalized over time.

Although we have sought to extend status characteristics theory to make novel predictions in a domain of fundamental social significance, much remains to be done in future work. An important limitation of the empirical work we outlined is that all tests were based on small, artificially constructed collective action groups. Future work should move beyond these conservative contexts to test the theory in the field. Real-world collective actions confront a range of challenges beyond those faced by groups in our study. For instance, while it is unlikely that any real-world collective actions would succeed without proactive members, successful collective action might also require other characteristics, including political knowledge or

marketing savvy, as noted earlier. Thus, an important issue for future work is extending the theory to account for cases where multiple skills or characteristics are instrumental to successful collective action, that is, where the actors do not confront a "unitary task," in the parlance of status characteristics theory. This extension could yield insights into how groups negotiate between the competing status orders generated by different domains of expertise or motivation. Similarly, real-world collective action groups are ordinarily much larger than those considered here. A longstanding question in the collective action literature is how large groups realize their collective interests (see, e.g., Udehn 1993). One possible route through which large groups are able to realize their collective interests is status differentiation, as high-status actors (e.g., celebrities or politicians) initiate collective action, thereby influencing a cascade of contributions by other group members. But again, this remains to be demonstrated via further study.

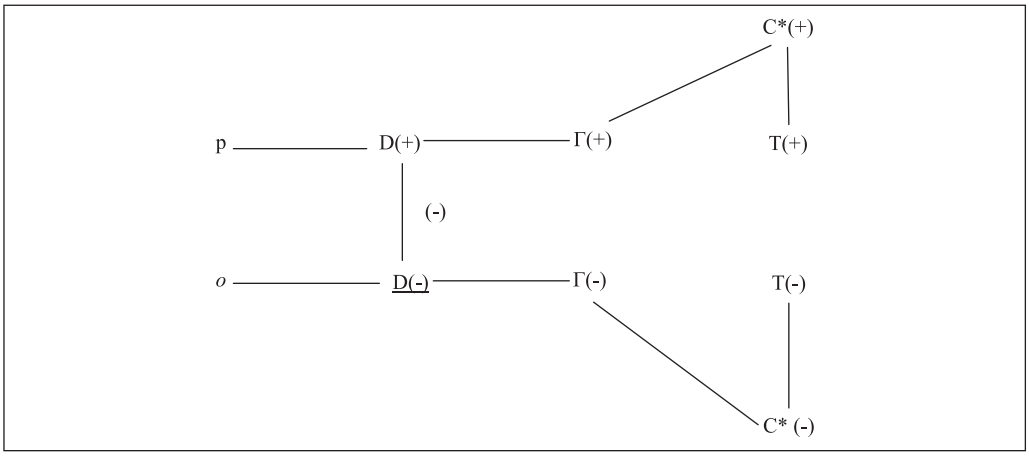
CONCLUSION

A critical problem in the social sciences is the conditions under which groups realize their common interests. Much existing work on the collective action problem asks what factors motivate *individuals* to contribute. Our emphasis is different in that we focus on how collective goods are secured *structurally.* The theoretical account outlined above explains variation in the success of collective action via differences in groups' status hierarchies.

A better understanding of how collective action is shaped by extant status differences within groups should yield an array of applications outside the laboratory. As others have noted (Kollock 1998; Ostrom 1990; Yamagishi 1995), a wide range of situations—from the interpersonal to the international—entail collective action problems. Thus, a better understanding of the factors that affect a group's ability to realize collective goals could yield insights into solving collective action problems such as environment protections, the maintenance of depletable resources, organization of disaster responses, effective community organization, and a wide range of charity drives. Just as important, an understanding of these dynamics can also help inform interventions to prevent unwanted collective actions such as inner-city gangs and terrorist organizations.

APPENDIX A

Graph-Theoretic Representation of Two Actors Differentiated by a Diffuse Status Characteristic



p = self; o = other; D(+), D(–) = positively and negatively valued states of a diffuse status characteristic; Γ(+), Γ(–) = generalized expectation states; C*(+), C*(–) = task characteristic; T(+), T(–) = task outcome (performance) states.

Appendix B
Design

The experiment took place at a large public university in the southeastern United States. Participants were recruited via flyers posted around campus advertising the opportunity to earn money for participation in research. A total of 187 participants took part in the study. Our dependent measure was whether and when a participant decided to contribute to the provision of a public good. Drawing on prior work that used education as a basis of status differentiation (Lovaglia and Houser 1996; Markovsky et al. 1984; Thye 2000), we manipulated whether participants, all university undergraduate students, were ostensibly paired with graduate students (low status condition) or high school students (high status). The entire procedure took approximately 30 minutes. (Because of the short duration of the experiment, some participants subsequently took part in one of several pilot experiments for an unrelated project.)

Procedure

Participants were scheduled in groups of six to eight. We took a number of steps to reduce the chance that participants would see each other and thus to avoid the possibility that other status characteristics (such as gender or race) might be activated in our setting. Immediately upon arrival, each participant was escorted to a private participant station. Once seated he or she was presented with a consent form and a "welcome letter," which stated that the research project was based on collaboration between the Department of Sociology, the graduate school, and social science teachers at a local high school. The instructions stated that the study was an investigation into how people of different backgrounds and different education levels work together on various group tasks. Participants were told that they may be working with any combination of undergraduates, graduate students, and high school students.

After the participant completed the consent form and welcome letter, the research assistant entered to collect some basic information from the participant. The assistant asked the participant to complete an entry on a "session information summary" form containing a total of nine entries. The participant was asked to write his or her initials (which would be used to identify her to other participants), age, and education. Five of the nine entries had already been completed by other ostensible participants, which included a mix of undergraduate, graduate, and high school students. As explained later, this information was used to justify the status manipulation.

Public Goods Dilemma

Subsequently, the research assistant left the participant to complete the computerized instructions for the group task. The instructions explained that the participant's group would work jointly on two tasks. The first would be a "group decision involving real money" that participants would complete via computer. This was the public goods dilemma. The second, participants were told, would be a face-to-face problem-solving task. Although the experiment actually ended after completion of the public goods task, pretesting showed that having participants anticipate a face-to-face interaction led to a more salient group setting. This is an important factor in collective orientation (Berger et al. 1977).

The instructions for the public good task explained that each of three group members would be given a "personal fund" worth $10. Each group member would decide whether to contribute his or her entire personal fund to the "group fund" or keep the fund for himself or herself. If all three group members contributed their $10 personal fund, the group fund would double in value (from $30 to $60). The $60 group fund would then be redistributed equally to all group members (so that each would earn $20). If, however, any member did not contribute, all contributions to the group fund would be lost. Thus, it was impossible for group members to free ride on each other's contributions. Instead, the group faced a "discrete" or "step-level" collective action problem; the public good would be provided either in its entirety or not at all (Komorita and Parks 1996).

Participants were told that all group members would have approximately 90 seconds to decide whether to contribute their personal funds to the group fund. When a group member contributed her personal fund, her decision would be relayed to all other group members. Thus, the instructions explained "although group members will not be able to communicate with each other before deciding whether or not to contribute to the group, group members will be able to see others' contributions as they happen."

To ensure understanding of the procedures, each participant was presented with detailed examples, followed by a brief comprehension quiz about the public goods problem. Incorrect answers to quiz questions were followed by an explanation of the correct answer. After the instructions and quiz, the participant was notified via computer that she and other group members would introduce themselves to each other by exchanging a limited amount of personal information. This included initials, education level, and age. (Ostensible others' ages were in line with their education levels.) Thereafter, the group decision task began.

Note that the procedures meet the scope conditions outlined in the main text. Because the difference between task success and failure was straightforward (the public good was either provided or not) and participants gained substantially more when the public good was provided, our design satisfies the task orientation scope condition. Furthermore, because contributing one's private endowment was rational if and only if other group members also contributed, it was important for participants to take others' behaviors into account. To ensure that participants understood this, we included two comprehension check questions designed to assess their understanding that the task was collectively oriented. One question asked participants how much a given group member would earn if that group member contributed his private endowment to the group but the other two group members did not. A second asked participants to indicate how much a given group member would earn if all three contributed their private endowments. The fact that 167 (89%) of 187 participants answered both questions correctly provides evidence that participants knew it was necessary and legitimate to take into account others' behaviors. (Two participants answered both questions incorrectly, and the remaining 18 participants missed one question.) Thus, our situation meets the collective orientation scope condition.

Status Manipulation

We manipulated status via random assignment of the participant as high or low status on a diffuse status characteristic (education). As noted earlier, all actual participants were undergraduate students. Thus, in the low status condition, the other two group members (identified only via initials) introduced themselves as graduate students, whereas in the high status condition, the other two group members introduced themselves as high school students.

Dependent Measure

Following the instructions and status manipulation, the group decision task began. Our primary question is whether the participant would make the first move by contributing his or her personal endowment to the group fund and whether this depended on the participant's status relative to other group members. Thus, the other two group members were preprogrammed with a delay of approximately 10 to 15 seconds, which pretesting showed was sufficient time for the participant to contribute if she was going to do so. If the participant did not contribute within this time frame, one of the simulated group members was randomly selected to contribute its endowment. Thereafter, the participant had additional time to contribute before the second simulated group member contributed. The task ended when time elapsed or (far more commonly) when all three group members made their contributions. Thereafter, participants were paid, assessed for suspicion, debriefed, and dismissed. (Those who participated in a subsequent experiment were debriefed after completion of the second study.)

Of the 187 participants, 23 either missed a majority of the three comprehension check questions or were suspicious about key aspects of the procedures (e.g., whether other group members were real or whether other group members were actually graduate students or high school students). This level of suspicion is within the range observed in prior work using similar manipulations (Lovaglia and Houser 1996; Markovsky et al. 1984; Thye 2000) and was roughly evenly distributed across the two conditions. The results reported in the text are based on those 164 participants who answered a majority of quiz questions correctly and who did not express strong suspicion about other group members or the status manipulation.

ACKNOWLEDGMENTS

We thank Kyle Irwin and Eric Gladstone for assistance with data collection and Ashley Harrell for helpful comments on a previous draft.

FUNDING

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was supported by a grant from the National Science Foundation (SES-0647169).

NOTES

1. Similarly, past studies of collective action have extensively modeled *threshold dynamics*, where interpersonal influence generates cascades of contributions (e.g., Granovetter 1978; Macy 1991; Schelling 1978). Importantly, this literature assumes that influence occurs only in terms of raw counts of past participants triggering further participation. This approach is echoed in "sideways-looking" models of collective action (Heckathorn 1996). However, these models of the effects of peer influence on collective action outcomes typically ignore heterogeneity in individuals' influence over others in general and status effects on interpersonal influence in particular.
2. We do not offer a formal or complete exposition of the theory here. See, for instance, Berger et al. (1977) for a thorough treatment and Kalkhoff and Thye (2006) for a recent meta-analysis of empirical tests of the theory.
3. Specifically, groups faced a collective action problem in which cooperation by all would result in substantially better outcomes than cooperation by none. Furthermore, researchers used exercises and examples (Sell 1997) or comprehension checks (Kumru and Vesterlund 2010) to ensure that participants knew that their own outcomes depended not only on their own choices but also on the choices of others. Additionally, because the collective action settings that they studied did not require any special skills or abilities but posed a risk that one's contributions would be exploited, we assume that participants in these studies perceived that the key to successful collective action, that is, the instrumental characteristic, was a proactive rather than reactive stance toward achieving the collective good.
4. As in the studies reported above, individuals earned more when collective action succeeded than when it failed. Similarly, as evident in comprehension checks (detailed in Appendix B), the vast majority of participants understood that their outcomes depended not only on their own choices but also on the choices of others. Thus, our study meets the scope conditions of the theory, requiring task orientation and collective orientation.

REFERENCES

Anderson, Cameron, Oliver P. John, Dacher Keltner, and Ann M. Kring. 2001. "Who Attains Social Status? Effects of Personality and Physical Attractiveness in Social Groups." *Journal of Personality and Social Psychology* 81:116–32.

Bales, Robert F. 1970. *Personality and Interpersonal Behavior*. New York: Holt, Rinehart, and Winston.

Barclay, Pat. 2004. "Trustworthiness and Competitive Altruism Can also Solve the Tragedy of the Commons.'" *Evolution and Human Behavior* 25:209–20.
Berger, Joseph, Bernard P. Cohen, and Morris Zelditch, Jr. 1966. "Status Characteristics and Expectation States." Pp. 29–46 in *Sociological Theories in Progress*, Vol. 1, edited by J. Berger, M. Zelditch, Jr., and B. Anderson. Boston: Houghton Mifflin.
Berger, Joseph, M. Hamit Fişek, Robert Z. Norman, and Morris Zelditch, Jr. 1977. *Status Characteristics and Social Interaction: An Expectations States Approach.* New York: Elsevier.
Berger, Joseph, Robert Z. Norman, James W. Balkwell, and Roy F. Smith. 1992. "Status Inconsistency in Task Situations: A Test of Four Status Processing Principles." *American Sociological Review* 57:843–55.
Berger, Joseph, Cecilia L. Ridgeway, and Morris Zelditch. 2002. "Construction of Status and Referential Structures." *Sociological Theory* 20:157–79.
Berger, Joseph, Susan J. Rosenholtz, and Morris Zelditch, Jr. 1980. "Status Organizing Processes." *Annual Review of Sociology* 6:477–508.
Berger, Joseph, David G. Wagner, and Morris Zelditch, Jr. 1985. "Introduction: Expectations States Theory-Review and Assessment." Pp. 1–72 in *Status, Rewards and Influence: How Expectations Organize Behavior*, edited by J. Berger and M. Zelditch, Jr. San Francisco, CA: Jossey-Bass.
Chwe, Michael S. 2001. *Rational Ritual: Culture, Coordination, and Common Knowledge*. Princeton, NJ: Princeton University Press.
Clark, C. Robert, Samuel Clark, and Mattias K. Polborn. 2006. "Coordination and Status Influence." *Rationality & Society* 18:367–91.
Cohen, Elizabeth. 1993. "From Theory to Practice: The Development of an Applied Research Program." Pp. 385–415 in *Theoretical Research Programs: Studies in the Growth of Theory*, edited by J. Berger and M. Zelditch, Jr. Stanford: Stanford University Press.
Cohen, Elizabeth. 1994. *Designing Groupwork: Strategies for the Heterogeneous Classroom*. New York: Teachers College Press.
Conway, Michael, M. Teresa Pizzamiglio, and Lauren Mount. 1996. "Status, Communality, and Agency: Implications for Stereotypes of Gender and Other Groups." *Journal of Personality and Social Psychology* 71:25–38.
Cook, Karen S. 1975. "Expectations, Evaluations, Equity." *American Sociological Review* 40:372–88.
Correll, Shelley J. and Cecilia L. Ridgeway. 2003. "Expectation States Theory." Pp. 29–51 in *The Handbook of Social Psychology*, edited by John Delamater. New York: Kluwer-Plenum Press.
Davis, Kingsley and Wilbert. E. Moore. 1945. "Some Principles of Stratification." *American Sociological Review* 10:242–49.
de Kwaadsteniet, Erik W. and Eric van Dijk. 2010. "Social Status as a Cue for Tacit Coordination." *Journal of Experimental Social Psychology* 46:515–24.
Eckel, Catherine C. and Rick K. Wilson. 2007. "Social Learning in Coordination Games: Does Status Matter?" *Experimental Economics* 10:317–29.
Ermakoff, Ivan. 2008. *Ruling Oneself Out: A Theory of Collective Abdications*. Durham, NC: Duke University Press.
Fehr, Ernst and Herbert Gintis 2007. "Human Motivation and Social Cooperation: Experimental and Analytical Foundations." *Annual Review of Sociology* 33:43–64.
Goode, William J. 1978. *The Celebration of Heroes.* Berkeley: University of California Press.
Granovetter, Mark. 1978. "Threshold Models of Collective Behavior." *American Journal of Sociology* 83:1420–43.
Halevy, Nir, Eileen Y. Chou, and Adam D. Galinsky. 2011. "A Functional Model of Hierarchy: Why, How, and When Vertical Differentiation Enhances Group Performance." *Organizational Psychology Review* 1:32–52.
Hardin, Russell. 1982. *Collective Action*. Baltimore, MD: Johns Hopkins University Press.
Hardy, Charlie L. and Mark van Vugt. 2006. "Nice Guys Finish First: The Competitive Altruism Hypothesis." *Personality and Social Psychology Bulletin* 32:1402–13.
Heckathorn, Douglas D. 1989. "Collective Action and the Second-Order Free-Rider Problem." *Rationality and Society* 1:78–100.
Heckathorn, Douglas D. 1996. "The Dynamics and Dilemmas of Collective Action." *American Sociological Review* 61:250–77.
Jasso, Guillermina. 2001. "Studying Status: An Integrated Framework." *American Sociological Review* 66:96–124.
Kalkhoff, Will and Christopher Barnum. 2000. "The Effects of Status-Organizing and Social Identity Processes on Patterns of Social Influence." *Social Psychology Quarterly*. 63:95–115.
Kalkhoff, Will and Shane R. Thye. 2006. "Expectation States Theory and Research: New Observations from Meta-Analysis." *Sociological Methods & Research* 35:219–49.
Kollock, Peter. 1998. "Social Dilemmas: The Anatomy of Cooperation." *Annual Review of Sociology* 24:183–214.
Komorita, Samuel S. and Craig D. Parks. 1996. *Social Dilemmas*. Boulder, CO: Westview Press.
Kumru, Cagri S. and Lise Vesterlund. 2010. "The Effect of Status on Charitable Giving." *Journal of Public Economic Theory* 12:709–735.

Lovaglia, Michael J. and Jeffrey A. Houser. 1996. "Emotional Reactions, Status Characteristics and Social Interaction." *American Sociological Review* 61:867–83.
Lovaglia, Michael J., Jeffrey W. Lucas, Jeffrey A. Houser, Shane R. Thye, and Barry Markovsky. 1998. "Status Processes and Mental Ability Test Scores." *American Journal of Sociology* 104:195–228.
Macy, Michael W. 1991. "Chains of Cooperation: Threshold Effects in Collective Action." *American Sociological Review* 56:730–47.
Magee, Joe C. and Adam D. Galinsky. 2008. "Social Hierarchy: The Self-Reinforcing Nature of Power and Status." *Academy of Management Annals* 2:351–98.
Markovsky, B., LeRoy F. Smith, and Joseph Berger. 1984. "Do Status Interventions Persist?" *American Sociological Review* 49:373–82.
Marmot, Michael. 2004. *The Status Syndrome: How Social Standing Affects our Health and Longevity*. New York: Times Books.
Marwell, Gerald and Pamela Oliver. 1993. *The Critical Mass in Collective Action: A Micro Social Theory*. Cambridge, UK: Cambridge University Press.
McAdam, Douglas. 1988. *Freedom Summer*. New York: Oxford University Press.
McAdam, Douglas, John D. McCarthy, and Mayer N. Zald, eds. 1996. *Political Opportunities, Mobilizing Structures and Cultural Framings.* New York: Cambridge University Press.
Meyer, David S. and Joshua Gamson.1995. "The Challenge of Cultural Elites: Celebrities and Social Movements." *Sociological Inquiry* 65:181–206.
Milinksi, Manfred, Dirk Semmann, and Hans-Jurgen Krambeck. 2002. "Donors to Charity Gain in Both Indirect Reciprocity and Political Reputation." *Proceedings of the Royal Society of London Series B Biological Sciences* 269:881–883.
Milner, Murray. 1994. *Status and Sacredness: A General Theory of Status Relations and an Analysis of Indian Culture*. New York: Oxford University Press.
Milner, Murray. 2004. *Freaks, Geeks, and Cool Kids: Americans Teenagers, Schools, and the Culture of Consumption.* New York: Routledge.
Moore, James C. Jr., 1968. "Status and Influence in Small Group Interactions." *Sociometry* 31:47–63.
Moscovici, Serge and Charlan Nemeth. 1974. "Social Influence II: Minority Influence" Pp. 217–49 in *Social Psychology: Classic and Contemporary Readings*, edited by C. Nemeth. Oxford, UK: Rand-McNally.
Oliver, Pamela. 1993. "Formal Models of Collective Action." *Annual Review of Sociology* 19:271–300.
Oliver, Pamela E., Gerald Marwell, and Ruy Teixeira. 1985. "A Theory of the Critical Mass. I. Interdependence, Group Heterogeneity, and the Production of Collective Action." *American Journal of Sociology* 91:522–56.
Olson, Mancur. 1965. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard.
Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. New York: Cambridge University Press.
Ridgeway, Cecilia, R. 1982. "Status in Groups: The Importance of Motivation." *American Sociological Review* 47:76–88.
Ridgeway, Cecilia, R. 1997. "Interaction and the Conservation of Gender Inequality: Considering Employment." *American Sociological Review* 62:218–35.
Ridgeway, Cecilia L. and Henry A. Walker. 1995. "Status Structures." Pp. 281–310 in *Sociological Perspectives on Social Psychology*, edited by K. S. Cook, G. A. Fine, and J. S. House. Boston: Allyn and Bacon.
Sauder, Michael, Freda Lynn, and Joel M. Podolny. Forthcoming. "Status: Insights from Organizational Sociology." *Annual Review of Sociology.*
Schelling, Thomas. 1978. *Micromotives and Macrobehavior*. New York: Norton.
Sell, Jane. 1997. "Gender, Strategies, and Contributions to Public Goods." *Social Psychology Quarterly* 60:252–65.
Sell, Jane and Kathy J. Kuipers. 2009. "A Structural Social Psychological View of Gender Differences in Cooperation." *Sex Roles* 61:317–24.
Strodtbeck, Fred, Rita James, and Charles Hawkins. 1957. "Social Status in Jury Deliberations." *American Sociological Review* 22:713–19.
Tarrow, Sidney. 1994. *Power in Movement: Social Movements, Collective Action, and Politics.* New York: Cambridge University Press.
Thye, Shane R. 2000. "A Status Value Theory of Power in Exchange Relations." *American Sociological Review* 65:407–32.
Tilly, Charles. 1999. *Durable Inequality.* Berkeley: University of California Press.
Troyer, Lisa. 2001. "The Effects of Protocol Differences on the Study of Status and Social Influence." *Current Research in Social Psychology* 6:182–205.
Udehn, Lars. 1993. "Twenty-Five Years with *The Logic of Collective Action*." *Acta Sociologica* 36:239–61.
van Vugt, Mark and David De Cremer. 1999. "Leadership in Social Dilemmas: The Effects of Group Identification on Collective Actions to Provide Public Goods." *Journal of Personality and Social Psychology* 76:587–99.
Wagner David G. and Joseph Berger. 1993. "Status Characteristics Theory: The Growth of a Program." Pp. 23–63 in *Theoretical Research Programs,* edited by J. Berger and M. Zelditch, Jr. Stanford, CA: Stanford University Press.

Wagner David G. and Joseph Berger. 1997. "Gender and Interpersonal Task Behaviors: Status Expectation Accounts." *Sociological Perspectives* 40:1–32.
Wagner, David G., Rebecca S. Ford, and Thomas W. Ford. 1986. "Can Gender Inequalities be Reduced?" *American Sociological Review* 51:47–61.
Webster, Murray, and James E. Driskell, Jr. 1978. "Status Generalization: A Review and Some New Data." *American Sociological Review* 43:220–36.
Webster, Murray, Jr. and Martha Foschi. 1988. "Overview of Status Generalization." Pp. 1–20 in *Status Generalization: New Theory and Research*, edited by M. Webster and M. Foschi. Stanford, CA: Stanford University Press.
Wedekind, Claus and Manfred Milinski. 2000. "Cooperation through Image Scoring in Humans." *Science* 288:850–852.
Willer, David, Michael J. Lovaglia, and Barry Markovsky. 1997. "Power and Influence: A Theoretical Bridge." *Social Forces* 76:571–603.
Willer, Robb. 2009. "Groups Reward Individual Sacrifice: The Status Solution to the Collective Action Problem." *American Sociological Review* 74:23–43.
Willer, Robb, Matthew Feinberg, Kyle Irwin, Michael Schultz, and Brent Simpson. 2010. "The Trouble with Invisible Men: How Reputational Concerns Motivate Generosity." Pp. 315–30 in *Handbook of the Sociology of Morality*, edited by S. Hitlin and S. Vaisey. New York: Springer.
Yamagishi, Toshio. 1995. "Social Dilemmas." Pp. 311–34 in *Sociological Perspectives on Social Psychology*, edited by K. S. Cook, G. A. Fine, and J. S. House. Boston: Allyn and Bacon.

BIOS

Brent Simpson is Professor of Sociology at the University of South Carolina. His current projects include studies of altruism homophily in social networks, successful collective action in large groups, and how interpersonal moral judgments influence cooperation and social order.

Robb Willer is an associate professor of sociology at the University of California, Berkeley. His research investigates the dynamics of status hierarchies, the causes and consequences of prosocial behavior, processes of moral reasoning, and the bases of political attitudes in the contemporary U.S.

Cecilia L. Ridgeway is Lucie Stern Professor of Social Sciences in the Department of Sociology at Stanford University. Her research addresses the role that social status in everyday interaction plays in stratification and inequality, especially in regard to gender. A recent book is *Framed By Gender: How Gender Inequality Persists in the Modern World* (2011). Current projects include experimental studies of "what binds low status members to the group?"