

2014

Oldtimers & Newcomers in Collective Action

Stefanie R. Chamberlain
University of South Carolina - Columbia

Follow this and additional works at: <https://scholarcommons.sc.edu/etd>



Part of the [Statistics and Probability Commons](#)

Recommended Citation

Chamberlain, S. R. (2014). *Oldtimers & Newcomers in Collective Action*. (Doctoral dissertation). Retrieved from <https://scholarcommons.sc.edu/etd/2642>

This Open Access Dissertation is brought to you by Scholar Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Scholar Commons. For more information, please contact digres@mailbox.sc.edu.

OLDTIMERS & NEWCOMERS IN COLLECTIVE ACTION

by

Stefanie Chamberlain

Bachelor of Arts
University of South Carolina, 2012

Submitted in Partial Fulfillment of the Requirements

For the Degree of Master of Arts in

Sociology

College of Arts and Sciences

University of South Carolina

2014

Accepted by:

Brent Simpson, Director of Thesis

Barry Markovsky, Reader

David Melamed, Reader

Lacy Ford, Vice Provost and Dean of Graduate Studies

© Copyright by Stefanie Chamberlain, 2014
All Rights Reserved

DEDICATION

For all those who journey to create their own path. And Mom.

ABSTRACT

Most work on groups facing collective action assumes that group membership is static, or fixed. Yet static membership is rare, with members joining and leaving groups. As a result, most research on solutions to the collective action problem tends to overlook the concept of dynamic groups. In this thesis, I explore what the presence of newcomers means for collective action groups—do dynamic groups fare worse than static groups in terms of coordination and cooperation? The empirical component is focused solely on addressing whether dynamic groups are less cooperative than static and, if so, whether this stems from the behaviors of “newcomers,” “oldtimers,” or both. But the paper also discusses several mechanisms potentially contributing to the effect. Specifically, the paper discusses how different mechanisms might influence newcomers and oldtimers to behave differently, consequently driving any differences we might observe between dynamic and static groups. The analyses yield no effect of dynamic vs. static groups on cooperation.

TABLE OF CONTENTS

DEDICATION	iii
ABSTRACT	iv
CHAPTER 1. INTRODUCTION.....	1
PROBLEM OF COLLECTIVE ACTION	3
COLLECTIVE ACTION IN DYNAMIC GROUPS.....	7
PRIOR RESEARCH ON NEWCOMERS	8
GOALS OF RESEARCH.....	10
CHAPTER 2. NEWCOMERS & COOPERATION	13
KNOWLEDGE OF GROUP NORMS	13
GROUP COMMITMENT & IDENTIFICATION.....	14
ROLE OF STATUS	17
CHAPTER 3. OLDTIMERS & COOPERATION	24
TRUST (OR LACK THEREOF).....	24
ANONYMITY.....	25
CHAPTER 4. METHOD	27
DESIGN.....	29
PARTICIPANTS	30
PROCEDURE.....	30
CHAPTER 5. RESULTS	34
CHAPTER 6. DISCUSSION	37

REFERENCES42

CHAPTER 1

INTRODUCTION

How groups come to be successful at resolving the disparity between collective and individual interests continues to be a hot topic among social scientists. In most collective action situations, groups encounter challenges organizing and incentivizing group members to coordinate with (and ultimately benefit) the group. While a number of researchers have identified solutions to the collective action problem (Kollock 1998), most of these solutions have failed to account for the fact that group membership in the real world is rarely fixed (Choi and Thompson 2008; Moreland and Levine 1982). Group composition transitions through generations of members, retaining some for long periods of time while losing and replacing others along the way (Moreland and Levine 1982). Drawing from real world instances, this process can be observed through the systems of classes in a university or cohorts in a department. As graduating seniors filter out of the university, incoming freshmen matriculate into it, becoming the newest members of the community. Similarly, new generations of cohorts are introduced each year to a department, with the goal of integrating not only into the community of their fellow graduate students, but the department as a whole.

The introduction and subsequent inclusion of new members into existing groups creates a different dynamic within the group—one of inexperienced newcomers interacting with older veterans, or oldtimers. New and old members must address the novel contexts in which they now find themselves: newcomers often must quickly learn

and/or adapt to the group norms while oldtimers, recognizing the change in group composition, must adjust to the presence of newcomers (Levine and Moreland 1990). This prompts the investigation of newcomers and their effect on the group's ability to manage its collective interests. Specifically, the purpose of this study is to examine the impact of newcomers on cooperation in collective action. While a majority of past research on cooperation assumes static group membership, few have considered whether dynamic group membership has different consequences for collective action situations. Knowing that fixed groups struggle to organize and incentivize members to cooperate, the current research explores the implications of changing membership on collective action. Due to the relatively small body of literature on dynamic groups in collective action, their impact on cooperation remains inconclusive among researchers. As such, the question of whether dynamic group composition differentially alters cooperation (as compared to static group cooperation) endures. The present study attempts to identify how cooperation differs between static and dynamic group memberships in collective action. Specifically, the study seeks to answer whether dynamic groups contend with more destructive disadvantages when attempting to coordinate cooperative behavior from group members.

Answering this question has important implications for research on dynamic groups. Primarily, the present research seeks to extend past research on unstable group memberships in collective action. By expressly examining dynamic groups and their impact on cooperation, I am to assess the extent to which newcomers influence and damage collective action situations. Answering this question might motivate scholars to explore new, unexplored solutions for collective action. For instance, if we find that the

introduction of newcomers lead to novel consequences for collective action groups, existing solutions devised under the assumption of static membership require revision. Because group composition is rarely stable, accepted solutions may not be effective at solving the problems of collective action groups characterized by dynamism. By investigating this question, scholars might uncover more robust solutions to collective action problems.

The Problem of Collective Action

Collective action refers to action taken by a group of people in pursuit of a common outcome or goal (Harden 1982). Group members share some interest in achieving the outcome and are interested in seeing the goal realized. The caveat in collective action situations is that the outcome is typically one that is unattainable by a sole individual actor (Olson 1965). That is, the effort of one actor alone cannot realize the task; as such, multiple actors with shared interests come together to contribute to the task and share in its benefits (Harden 1982).

The key problem with collective action is that individual interest does not always coincide with collective interest. As Olson notes, just as individuals share an interest in a collective outcome, they also have purely individual interests (1965). What's more, as rational actors, individuals are inclined to maximize their own personal welfare—even if this action comes as a cost to the collective good (Olson 1965). An individual may be motivated by self-interest to neglect the collective good—yet because he is a member of the group, he can still receive its benefits. Thus, actors may seek out short-term benefits for themselves, as the actor profits more when all others contribute to the collective good and he does not (Olson 1965). Termed free riding, although he may not contribute to the

good, he still shares equally in its rewards (Ostrom 2000). In this case, the actor benefits at no cost to himself—therefore the temptation to free ride is high. However, if all individuals in the group behaved in this fashion, the costs would be great (Harden 1982). If all group members pursued self-interest over the group, there would be no group benefits (Harden 1982).

Individuals encounter situations where they must decide whether to pursue personal or collective interest. Faced with a dilemma, the individual decides between contributing to the good and exploiting it. Thus collective effort is marred by social dilemmas—those situations where individual rationality by all leads to collective irrationality (Kollock 1998). Because of temptation to pursue self-interest, groups are tasked with the challenge of organizing and motivating group members to contribute to the collective good. For successful collective action, the group (or intervening institution) must coordinate its members' actions in ways that benefit the group and its desired outcomes (Ostrom 1990). The group may encourage cooperation through incentives, yet also deter free-riding through sanctions (Oliver 1980; Ostrom 1990). Collective action is most effective when the group organizes its member contributions in patterns that complement one another, profiting the group as a whole.

Devising solutions to collective action problems has been a hot topic in social scientific research. One of the first to consider the topic, Olson proposed the idea of selective incentives as solutions for collective action problems (1965). Selective incentives are private benefits given to group members for their contributions to the group (Olson 1965). According to Olson, material or social incentives motivate self-interested individuals to contribute to the group (1965). Selective incentives can also be

coercive—that is, the group can incentivize contributions by punishing those who do not burden their share of responsibility for the group’s outcome (Olson 1965). Selective incentives, as argued by Olson, increase the chances of group success.

More broadly, various solutions to collective action consider how the structure of the group affects cooperation. For effective collective action, research suggests the importance of repeated interactions (Kollock 1998; Axelrod 1984). Repeated interactions tend to encourage cooperation because individuals recognize the influence of a current cooperative interaction on subsequent meetings with the same partner. Thus actors have an incentive to be cooperative in current interactions to ensure future cooperation from partners. Alongside this idea, identifiability of and information about actors contributes to successful cooperation. When actors are able to identify other actors and their behavior, they are held accountable for their actions (Kollock 1998; Axelrod 1984). Providing information about past histories allows actors to form reputations, which aid successful cooperation interactions (Axelrod 1984; Kollock 1998). When actors have information about their partners, they are better able to make productive decisions in the task.

The size of the group also has implications for whether collective action is successful. Olson first noted that larger groups face challenges in coordinating its members (1965). As the group grows, according to Olson, communication becomes more costly and the group less successful at organization (1965). Dawes suggests that larger groups face problems in collective action because harm from non-cooperation is diffused throughout the group (1980). In smaller groups, when individuals are not cooperative, the behavior is more damaging on the group. Larger groups spread the damage throughout more members, lessening its impact.

Larger groups also heighten anonymity in the group (Dawes 1980). As noted above, identifiability aids successful coordination because group members are more accountable for their actions. In small groups, actors can monitor and hold other group members responsible for their contributions. In larger groups, individual actions are less visible to other group members, allowing actors to behave less cooperatively. Because actors are cloaked in anonymity, their actions are difficult to monitor. Without monitoring and accountability, group member cooperation may decrease.

Efficacy is also diminished in groups, especially large ones (Dawes 1980). In group tasks, individual contributions have a less noticeable impact on the group, prompting individuals to behave less cooperatively. When individuals feel like their contribution has a large impact, they are more likely to behave cooperatively (Kerr 1992). Individuals can come to perceive themselves as more efficacious in small groups or by instituting structural changes in the group (Dawes 1980; Kollock 1998). If the individual perceives the group as close to attaining its goals, then he may perceive his own contribution as more influential, thus engendering cooperation (Kollock 1998). Similarly, groups make it harder to influence others, thus contributing to their less cooperative outcomes (Dawes 1980). Cooperative contributions in groups are likely to go unnoticed by others—their influence over others' decisions is small, yet costly. Conversely, in small groups or dyadic interactions, actors are more effective at persuading and influencing others with their contributions.

Sanctioning systems can act as effective solutions to collective action problems. Olson's selective incentives, for example, would be an example of a sanctioning system—members of the group receive punishments for low levels of contributions to the

group, or rewards for high levels of group contributions. While instituting sanctioning systems is an effective way to garner contributions from members (Dawes 1980), there are problems associated with sanctions. Sanctioning is often costly due to monitoring—this is especially the case in larger groups (Ostrom 1990). Further, sanctioning itself often constitutes a second-order collective action problem—that is, it is tempting to free-ride in providing the second-order public good of sanctions (Oliver 1980; Heckathorn 1989).

Collective Action in Dynamic Groups

As should be clear from the above, organizing collective action poses a problem for groups. Moreover, it seems reasonable to assume that the collective action problem is further compounded when we consider that most groups tend to have dynamic or unstable group membership. Yet, with the exception of the studies mentioned below, most of the literature on collective action assumes group composition to be static. This assumption of fixed membership is problematic in that groups typically experience movement of members into and out of the group (Moreland and Levine 1982; Moreland and Levine 2002). Introducing newcomers to the group initiates an adjustment period for all members—newcomers must adjust to their new environment and oldtimers to the changes in the group composition. As new members acclimate themselves with the group and its norms, old members must also adjust to the changes. As such, organization is temporarily more difficult for the group because all members are adapting to the differences (Moreland and Levine 1982). Knowing this, it is reasonable to expect a decline in cooperative behavior from group members (McCarter and Sheremeta 2013; Weber 2006). However, because past research has overlooked dynamic groups, the extent to which cooperation declines in dynamic groups remains unclear. Is the deleterious

effect of collective action on cooperation the same in dynamic groups? Or, is the effect intensified in groups with changing group membership?

As suggested above, existing solutions of collective action may not be effective in dynamic groups. The standard solutions reviewed above assume static group composition, meaning they may be less successful at solving collective action problems when membership is not fixed. Consider, for instance, the solution of repeated interaction— this will be difficult to achieve in groups with changing composition. Likewise, as new members filter in, group members may become more anonymous. As such, as research continues to delve into dynamic groups in collective action, it might also examine new solutions that better address and resolve issues arising from the changing dynamics in the group.

Because the fixed composition assumption is problematic for dynamic groups, it is important to examine how newcomers impact group cooperation. Thus, the following section reviews existing research on newcomers and dynamic groups. It not only considers prior research on the impact of newcomers on groups but also makes suggestions about how cooperation fares in the presence of new group members.

Prior Research on Newcomers

Much of the prior research on newcomers assesses characteristics of newcomers before joining the group, and how those characteristics affect group achievement or integration (Levine and Moreland 1990; Morrison 2002; Stiff and Van Vugt 2008). For example, Morrison (2002) demonstrates how various aspects of a newcomer's social network affect certain outcomes in the group, such as group incorporation and role clarity. Likewise, Stiff and Van Vugt (2008) demonstrate the effects of third-party information

on group socialization, finding that receiving information about new members from alternative sources (rather than the newcomer) positively affects the acceptance of that member as well as group coordination.

The little research done to address the behavior of group members after the addition of new members to the group is far from conclusive. While some argue the addition of new members to an existing group decreases group performance (McCarter and Sheremeta 2013), others argue newcomers can have a positive impact on group outcomes (Choi and Thompson 2008; Weber 2006). While the impact of newcomers on group coordination thus remains undecided, scholars do agree that the reputations of new members play an important role. When incorporating new members, the reputational information available to existing members generally impacts subsequent coordination and cooperation (McCarter and Sheremeta 2013; Moreland and Levine 2002). Moreland and Levine (2002) demonstrate that as newcomers enter growing groups, coordination remains high if the existing group members receive feedback about the newcomer's past trustworthiness. Lacking information about new members leads oldtimers to experience uncertainty and mistrust towards newcomers (Zacharia and Maes 2000). In the presence of uncertainty and information asymmetry, group outcomes suffer (Kollock 1994; Kramer 1999).

Likewise, McCarter and Sheremeta (2013) demonstrate that replacing group members with new ones results in overall decreased cooperation and trust in the group. Especially in those groups where cooperation is already low, the addition of newcomers may further erode trust and cooperation within the group. However the damaging effects of newcomers is alleviated when all group members receive information about both

newcomers' and oldtimers' performance histories (McCarter and Sheremeta 2013; Weber 2006). These studies provide evidence for a 'newcomer problem': not only are there negative consequences associated with unfamiliar newcomers, but further that an absence of information about new partners initiates uncooperative behavior from group members. Knowing this, the following argument addresses the effect of newcomers on groups, in the absence of information about their reputations or past histories.

Goals of the Research

Because a majority of literature assumes group composition is fixed, research overlooks issues of group coordination in dynamic groups. As a consequence, we do not know how dynamic group membership impacts cooperation. The current research seeks to address the oversight by specifically examining cooperation in dynamic groups. While the research above suggests there is a decline in cooperation over time, the current research seeks to distinguish between the declines in static and dynamic groups. Put differently, how does cooperation in static groups compare to that of dynamic groups? This raises the question of how the behaviors of dynamic group members differ from static groups when taking in and interacting with new members. Thus the goal of the research is to determine whether this behavior is different from the typical decline in cooperative behavior observed in static groups.

Some researchers have assumed that the mere presence of newcomers engenders less cooperative behavior from both the newcomers and oldtimers (Moreland and Levine 2002). Of interest, one might compare the behaviors of oldtimers and newcomers in dynamic groups to determine their effect on cooperation in groups. McCarter and Sheremeta (2013) attempt to answer this question, using participants' behavioral

predictions for their other group members. That is, actual behavioral measures reveal that an absence of information about performance history of either subgroup leads to low group cooperation. To account for why this happens, McCarter and Sheremeta look to predictions about other participants' behavior—when group cooperation is low, participants believe the oldtimers of the group will contribute less than newcomers. Based on this finding, the authors conclude that oldtimers' behavior is the primary source of decline in contributions in dynamic groups (McCarter and Sheremeta 2013). Yet, while their finding does attempt to separate the actions of the subgroups, it uses group members' *predictions* of others' behavior, rather than actual contribution decisions. Although the study did not address actual behaviors, it suggests that there may be a disparity between the cooperative behaviors of newcomers and oldtimers, with oldtimers cooperating less.

If cooperation tends to decline in dynamic groups, why might this be the case? Can we pinpoint the behavior driving down cooperation in dynamic groups? The findings from McCarter and Sheremeta (2013) suggest that the problem rests with oldtimers' responses to the introduction of new members. The presence of newcomers may prompt oldtimers to feel anxious about how the presence of new members will impact the group's outcomes, resulting in less cooperation compared to the period prior to the newcomers' arrival (Ostrom 1999). Uncertainty about the newcomers could drive oldtimers to engage in defensive behaviors, driving down overall cooperation from this sub group (Ostrom 1999). The decline in cooperation might also primarily result from newcomers. Being a newcomer often means new members are uninformed of group norms. This may lead to lower levels of cooperation, at least in relatively cooperative

groups (Weber 2006). Alternatively, strong feelings of group commitment may not immediately arise when joining groups, allowing newcomers to disrupt established relationships and norms (Cini 2001). It becomes apparent that this is an important question worth exploring, and that investigating the behaviors of newcomers and oldtimers separately may yield valuable insights into why the admission of newcomers generates negative outcomes for existing groups.

The research solely aims to establish whether dynamic groups affect cooperation behavior and, if so, whether the effect is driven by oldtimers, newcomers, or both. In particular, it attempts to answer the question of whether dynamic groups fare worse than static groups in collective action. If we find that dynamic groups do indeed experience worse outcomes in collective action, we can begin to investigate underlying mechanisms driving the differences in group behavior. The current research distinguishes between the behaviors of oldtimers and newcomers to determine how each group might contribute to the effect. Below I outline several mechanisms through which dynamic group composition might affect the behavior of group members. There are compelling reasons to expect either newcomers or oldtimers to drive down cooperation; here I present several mechanisms that may serve as useful starting points as research begins to probe further into the ‘newcomer’ problem. I first concentrate on newcomers, identifying those underlying processes that may trigger new group members’ lower cooperation within the group. I then turn attention to oldtimers, outlining potential mechanisms driving existing group members’ decision making.

CHAPTER 2

NEWCOMERS & COOPERATION

Joining a new group can be uncomfortable for new members for a number of reasons. Uncertainty about the group plays a major role in the new members' uncomfortable experiences. Newcomers are often unsure of what the group expects of them, which can lead newcomers to act cautiously (or defensively) in their first interactions with the group. Consequently newcomer inexperience may negatively impact group cooperation. Conversely, new group members' lack of connection to the group may lead the newcomer to feel more justified in taking advantage of the group. Considering this, I discuss how the knowledge of group norms, group commitment and identification, and status processes affect dynamic groups via newcomers.

Knowledge of Group Norms

Groups develop shared expectations for how members should behave, or norms (Levine and Moreland 1990). Norms begin as patterned behavior within the group that generate expectations for what group members will likely do; as time continues, group expectations transition from what group members will *likely* do to expectations for what group members *should* do (Levine and Moreland 1990; Feldman 1984). Norms guide different facets of the group dynamic—from dictating intergroup interactions to intragroup behavior (Levine and Moreland 1990). In this way, groups develop expectations for group outcomes and the behavior necessary to achieve those outcomes (Levine and Moreland 1990; Feldman 1984). As a new group member, the newcomer has

yet to understand his place in the group—group norms and expectations are not immediately available to the newcomer (Ashforth and Mael 1989). In light of newcomers' confusion about the group's expectations, it should be expected that newcomers fail to adhere to existing norms. Put differently, if newcomers do not know the expected standards, they cannot uphold them.

What's more, lacking information about the group's expectations may leave the new group member feeling uncertain (Hellman and McMillin 1994; Jones 1986). Uncertainty leads the newcomer to adopt a safe (or defensive) approach, exhibiting lower cooperative behavior to avoid being the 'sucker' (Komorita, Sweeney, and Kravitz 1980; Ahn, Ostrom, Schmidt, Shupp, and Walker 2001). While the new member may have pre-existing expectations about oldtimers, in actuality he *knows* very little about the group and its members. Knowing this, I predict that newcomers drive down cooperation when knowledge of group norms is low.

Group Commitment & Identification

Group member commitment leads to greater group success (Kerr and Kaufman-Gilliland 1994). Tenure, positive group feelings, and involvement are positively associated with greater group commitment, particularly in organizations (Mathieu and Zajac 1990). For example, the more involvement in the group, the more group commitment; likewise, the more positively one views his group, the stronger his commitment to it (Mathieu and Zajac 1990). Thus, an oldtimer's longer, positive time in the group fosters his sense of commitment to it. Tenure in the group facilitates the process of group commitment, creating a sense of cohesiveness and solidarity over time (Stevens, Beyer, and Trice 1978). As a committed member to the group, the oldtimer is invested in attaining the

goals of the group (Ellemers, Spears, and Doosje 1997; Wech et al. 1998). Thus, group expectations for member performance are upheld and desired group outcomes are realized (Levine and Moreland 1994).

Conversely, when new group members join established groups, initial commitment to the group is more apt to be low. Looking to the antecedents of group commitment, newcomers may not immediately experience positive group feelings or involvement. Because of newcomers' limited time in the group, the newcomer is uncertain about group cohesion and solidarity. Uncertainty on the part of the newcomer creates anxiety and fails to create a sense of commitment to the group (Bauer et al. 2007). Without group commitment, the new member is not responsible for to the group; that is, because the newcomer is uncommitted to the group, he does not feel compelled to contribute to the group's success (Wech, Mossholder, Steel, and Bennett 1998; Cini 2001). As such, the newcomer's performance and effort to coordinate with the group is lower than an oldtimers', driven by a lack of desire in bettering the group (Levine and Moreland 1994; Ashforth and Mael 1989).

Related to group commitment, group identification may also influence behavior in the group. Components of the self-concept are drawn from memberships and participation in social groups (Tajfel 1982; Terry, Hogg, and White 1999; Fisher and Wakefield 1998). Individuals come to define themselves by group characteristics, anchoring their self-concepts to group memberships (Fisher and Wakefield 1998). This process is often accompanied by categorization; that is, as individuals come to identify with groups, they also begin differentiating between themselves and others (Terry, Hogg, and White 1999). The process of categorization creates in-groups and out-groups, where

one's in-group is the group with which an individual psychologically identifies (Tajfel 1970; Hogg and Turner 1985). Individuals tend to favor their own in-group, evaluating their group as superior to the out-group. Thus, individuals are often hostile to and discriminate against out-groups. (Billig and Tajfel 1973; Tajfel 1970; Brewer 1999).

Oldtimers' membership in the group fosters their sense of group identity (Fisher and Wakefield 1998). Relationships form around his group membership, strongly influencing his sense of self. He adopts those group characteristics as his own, categorizing the group as his 'in-group' and favoring his group over others (Tajfel 1982). Group identification results in loyalty to the group as well as responsibility for the group outcomes (Ashforth and Mael 1989; Fisher and Wakefield 1998). The oldtimer feels responsible for the collective good and is interested in the group's success. Because the oldtimer's intention is to uphold group standards, we should expect that the oldtimer's behavior is generally cooperative and beneficial to the group.

Although simple categorization is sufficient to produce a sense of group identification (Tajfel 1970; Brewer 1999), strong group identification may not be immediate for newcomers. As a newcomer, fewer (if any) relationships have formed around group membership. Being relatively weak relationships, the newcomer is less likely to develop strong in-group feelings and to align his behavior with the group. As a consequence of the newcomers' membership standing, the newcomer is less likely to identify with the group (Kramer and Brewer 1984).

Thus when group identification is low, the newcomer is less interested in the group's desired outcomes (Terry and Hogg 1996). A newcomer's lack of group identification means he is more concerned with his own agency and interests: he is less

interested in seeing the group succeed and more concerned with realizing his or her own self-interests, willing to sacrifice the group's interests for his own gain (Ellemers, Spears, and Doosje 1997). Therefore drawing from this body of literature, I predict that newcomers' cooperation behavior is lower than that of the oldtimers', due to low commitment to the group. Likewise, I predict that low group identification by newcomers results in lower cooperation from those members.

Role of Status

Status processes may play an important role in dynamic groups. Applying status characteristic theory (SCT) to the relationship between oldtimers and newcomers may provide a better understanding of status processes in dynamic group composition.

According to SCT, individuals engaged in a collective task form a status hierarchy based on evaluations and beliefs about different group member characteristics (Berger, Cohen, and Zelditch 1972). Known as an observable power and prestige order (OPPO), hierarchical structure develops almost immediately and influences group member behavior. According to the theory, members of a group are differentiated by status characteristics: diffuse and specific (Berger, Cohen and Zelditch 1972). Both diffuse and specific status characteristics have multiple states that are differentially evaluated in terms of competence. Specific status characteristics are associated with specific expectation states—for example, an attorney's knowledge of law gives rise to higher competence evaluations in a courtroom setting. Diffuse status characteristics are also associated with specific expectation states, but differ in that they are also associated with general expectation states. Sex is considered a diffuse status characteristic, with male as the advantaged state. Thus, males are assumed to be more capable in general

while also associated with other specific expectations states. Importantly, characteristics are considered status characteristics only if there are *distinct performance expectations* associated with each of its states.

The theory states that a status characteristic becomes salient when it is directly related to the task, or if it is explicitly disassociated from the task; once the status characteristic is salient, it is assumed to be relevant to the task unless specifically disassociated (Berger, Fisek, Norman, and Zelditch 1977). As such, group members come to form performance expectations for competency in the group task based on status characteristics, even when those characteristics are not related to the task. The basic expectation assumption states if an individual has developed expectations, then his position in the OPPO is a direct function of his expectation advantage, relative to others (Berger et al. 1977). The structure of the OPPO has consequences for the behavior of the group members, in terms of performance opportunities and evaluations (Berger et al. 1977; Ridgeway 1982). Not only do high status members receive more opportunities to act, but they also perform more often (Ridgeway 1982; Lovaglia et al. 1998). Further, their actions are evaluated more favorably, as compared to low status members (Lovaglia et al. 1998)

SCT is scope limited to those situations where two or more actors (with at least one status characteristic differentiating them) are motivated to succeed at a collective (and evaluated) task. The actors must believe a particular characteristic is instrumental to task completion; what's more, all subtasks in the task must also be linked to that same characteristic. Only in those settings in which these conditions are fulfilled can SCT be used to make predictions about status processes.

Simpson, Willer and Ridgeway (2012) argue that collective action situations satisfy these scope conditions (Simpson, Willer, and Ridgeway 2012). In collective action scenarios, group outcomes or goals typically have clear successes or failures, with members favoring the successful outcome. Simpson, Willer, and Ridgeway (2012) use the example of community gardens—there is either a cultivated garden (success) or a desolate one (failure). What’s more, members of the community garden desire and value the cultivated garden over the desolate one. Accordingly, collective action fulfils the task-oriented condition of SCT. Relatedly, collective action scenarios require individuals to be collectively-oriented (Simpson, Willer, Ridgeway 2012). When deciding upon a course of action, the actor engaged in a collective action task takes into account what others have contributed in the past as well as promises of future contributions (Kollock 1998). Thus, collective action groups fall within the theory’s scope conditions.

In the case of dynamic groups, I posit that the differentiating status characteristic of interest is tenure or experience in the group (a specific status characteristic). An oldtimer’s longevity in the group gives rise to higher expectations of competency in the group. In this case, when newcomers join existing groups, longevity in the group becomes a salient status characteristic. When a specific status characteristics becomes activated, actors assume that one state of the characteristic is “better” than the other. All other things equal, actors come to assume that the individual possessing the higher state will be more successful on the task; that is, group members will assume that the actor who has more positively valued states of status characteristics possesses the positive state of the characteristic instrumental to task success (Berger et al. 1977). In the case of collective action situations, Simpson et al. (2012) argue that the instrumental

characteristic entails taking a proactive stance toward achieving the group's goal. They argue that this characteristic is instrumental to success because it facilitates successful cooperation in collective action. In particular, because a proactive stance leads members to initiate and maintain cooperation, the characteristic is successful at initiating cooperative groups. Performance expectations form for both states based on possession of this characteristic. Specifically the group may form performance expectations for newcomers, such that they expect they be less cooperative, competent, group-oriented, etc.

The idea that tenure or group membership may be a specific status characteristic is supported by research demonstrating newcomers typically hold low status positions, relative to existing members (Rollag 2004; Perretti and Negro 2006). Being less experienced and knowledgeable of group dynamics when compared to the veteran members, new group members are rarely afforded high status (Perretti and Negro 2006). Oldtimers expect newcomers to be passive and apprehensive, and newcomers often uphold this expectation, gaining group acceptance from oldtimers (Levine and Moreland 1990). Yet, behaving anxiously to satisfy expectations reinforces perceptions of newcomers' incompetence. Negative perceptions about one's ability further expectations about low-status incompetence.

In contrast, existing members are important members of the group, encouraging and influencing newcomers (Perretti and Negro 2006; Rollag 2004). Relative to the newcomers, oldtimers assume positions of high status (Jetten et al 2010). Accordingly, the high status members receive more opportunities to perform and do perform more often (Berger, Rosenholtz, and Zelditch 1980). Not only this, when working in group

tasks, high status individuals are generally more cooperative in their behavior; as a result, group members come to expect high status group members to give higher contributions (Simpson, Willer, and Ridgeway 2012). As such, when high status individuals initiate cooperation in a public good game, their contributions are often higher than when low status individuals begin the game (Simpson, Willer and Ridgeway 2012). Oldtimers' behavior receives higher evaluations from members (even when lower status newcomers' behavior is equal to oldtimers), maintaining oldtimers' already high status (Lovaglia et al. 1998). Other studies support this finding, indicating that individuals perceived as generous or altruistic receive higher status conferrals from others (Flynn et al 2006; Anderson and Kilduff 2009; Willer 2009). Thus as oldtimers, high status members are expected to give more and when they do, they receive conferrals of high status from group members. Therefore one might predict that newcomers' cooperation behavior is lower when compared to the oldtimers', as a result of status processes.

There is evidence, however, that low status members can gain status through group-motivated behavior. In the context of collective action situations, group-motivated behavior occurs by contributing resources to the group. According to Ridgeway (1982), group-motivated individuals, as opposed to strictly self-interested ones, are more valuable to the group and, as such, their contributions are more likely to be accepted by other group members. When other group members accept low status contributions, they also accept the influence of those low status members (Ridgeway 1982). A critical component of status characteristics theory, attaining influence in the group generates higher status attainment for the individual (Berger et al. 1977). Thus, if low status individuals wish to

move up the status hierarchy, Ridgway posits that presenting oneself as group-motivated might facilitate this ambition.

This contradicts the findings from Levine and Moreland (1990) that found that newcomers behave passively and underperform to gain acceptance from older members. Because newcomers are low status members, their expected contributions would be lower compared to behaviors expected from (higher status) oldtimers (Simpson, Willer, and Ridgeway 2012). But the Ridgeway (1982) argument suggests that as low status members, newcomers might show group motivation in an effort to gain status. Their higher contributions would be considered illegitimate by the group, and subsequently require members to judge the motivation driving the suspicious higher contributions (Ridgeway 1982). According to Ridgeway, members may view the behavior as either group-motivated or self-motivated (1982). High contributions may be judged as group-oriented and consequently accepted by group members. Alternatively, because prior research suggests the contributions from low status individuals are self-motivated (Ridgeway 1978; Lovaglia et al. 1998), high contributions might be perceived as low status members having underlying ulterior motives. In the context of the situation where newcomers are expected to be passive group members, rather than signaling a desire for group success, high contributions might raise red flags for existing group members. Cooperative behavior conflicts with the low status position (Lovaglia et al. 1998); appearing group motivated as a newcomer may upset the existing structure, subjecting newcomers to sanctions by other members (perhaps the older members view the newcomer as presumptuous or brash) (Lovaglia et al. 1998). Although newcomers may be contributing at high levels to the group, their actions will be evaluated less favorably

than equal behavior from high status members—regardless of whether or not the individual is group-motivated. Lovaglia et al. point out that high status members often devalue or ignore contributions from low status individuals (1998). As such, oldtimers may dismiss group-motivated, high contributions from low status member as illegitimate. As a result, high contributions from newcomers may not see comparable increases in expectations about their proactive orientation (as compared to high contributions from high status oldtimers) (Lovaglia et al. 1998). Because newcomers stand to gain less—compared to oldtimers—from high contributions, they may behave less cooperatively. Thus although Ridgeway’s findings suggest high contributions to signal group motivated behavior results in status gains, newcomers may be hesitant to become high contributors for fear of upsetting existing status hierarchies and the resulting repercussions.

CHAPTER 3

OLDTIMERS & COOPERATION

Current group members must also adjust to the incorporation of new members into their group. Accepting new members may alter the group dynamic, requiring older members to modify existing expectations for group coordination. Encountering new group members blindly—that is, without reputational information about the newcomers—oldtimers may also feel uncertain about the group and its altered composition. Oldtimers face the possibility of exploitation by newcomers and react accordingly, with the potential for damaging group cooperation. On the other hand, oldtimers may view newcomers as advantageous for their self-interest, using newcomer introduction as an opportunity to exploit the group. The following section addresses the underlying processes of trust and anonymity and their effects on oldtimer cooperation behavior in dynamic groups.

Trust (or lack thereof)

As briefly noted above, newcomer presence leaves oldtimers feeling uncertain about the group (McCarter and Sheremeta 2013; Kramer 1999). Trust within the group suffers as a consequence of uncertainty in the new group dynamic—oldtimers are suspicious of whether newcomers will adhere to established group norms (Maden, Mosakowski, and Zaheer 2003). Without information about a newcomer's reputation, oldtimers are left with little information about the newcomer on which to base trust (Bolton, Katok, and Ockenfels 2005; Moreland and Levine 2002). Oldtimers struggle to determine the extent to which the newcomer's actions will benefit or harm the group. Accordingly,

oldtimers may take a defensive approach, lowering their own cooperation to avoid becoming a ‘sucker’ in future group tasks (Komorita, Sweeney, and Kravitz 1980; Ahn, Ostrom, Schmidt, Shupp, and Walker 2001).

Interestingly, McCarter and Sheremeta suggest that oldtimer distrust of other oldtimers may contribute to the breakdown of cooperation (2013). According to McCarter and Sheremeta, when group cooperation is low, both newcomers and oldtimers predicted that oldtimers’ contributions would decrease as incoming new members join groups (2013). McCarter and Sheremeta suggest oldtimers react to the existing groups’ inability to coordinate, causing oldtimers to distrust each other. Subsequently, when introducing newcomers to group, oldtimers exhibit lower cooperative behavior as the result of added uncertainty to a low cooperating group.

Whether oldtimers distrust newcomers or other oldtimers, trust is important to the group outcome. Trust aids coordination and cooperation within a group, allowing group members to establish cooperative group norms (Dirks and Ferrin 2001). Trust within the group eliminates the fear of exploitation, allowing members to be highly cooperative for the benefit of the group (De Cremer 1999; Dirks and Ferrin 2001). Newcomers disrupt trust in the group—thus, as trust collapses within the group, so too does group cooperation.

Anonymity

Anonymity negatively impacts collective action. Under the cloak of anonymity, group members are tempted to act in self-interested ways (Sweeney 1973). Anonymity eliminates worry about others’ evaluations of behavior, reducing concern for the

individual's reputation (Haley and Fessler 2005). In the end, anonymity typically results in degenerative cooperation and other unsuccessful group outcomes.

As the composition of the group changes and new members are incorporated into the group, the group turns its attention to the new members. Interested in the new members and their impending effect on the group, oldtimers' energy and attention is diverted from the group to the newcomer (Cini 2001). Oldtimers become concerned with the newcomer's integration in the group (Cini 2001; Rollag 2004). Unsurprisingly then, notions of relative anonymity tend to be eliminated for the newcomer; his actions are on display for group scrutiny. At the same time, oldtimers' feelings of anonymity are likely to be elevated. That is, as the group focuses on incorporating and socializing newcomers, the actions of oldtimers' are relatively unnoticed (Rollag 2004; Cini 2001). Because the group is more apt to overlook oldtimer behavior, those members desiring to further their own self-interest are better able to do so with little resistance or consequence. Newcomer incorporation provides oldtimers' the opportunity to exploit the group, as the group will associate the decline in cooperation with the newcomers. As a result, as oldtimer anonymity in the group increases, oldtimers' cooperative behavior is lower when compared to newcomers'.

CHAPTER 4

METHOD

To summarize, the foregoing suggests several possible consequences for dynamic groups, including predictions for newcomer and oldtimer behavior. Of primary interest, the research makes predictions about the influence of dynamic groups on cooperation. In prior research on dynamic collective action groups, newcomers have been shown to have a damaging effect on cooperation (McCarter and Sheremta 2013; Weber 2006). What's more, there is some evidence to suggest that in dynamic groups, cooperation is lower than in static groups (McCarter and Sheremeta 2013). Because the arrival of newcomers marks a transition period for the group, coordinating cooperation among members is more difficult than in static groups. *Based on this, I predict that if newcomers are introduced to groups, then cooperation declines.*

Secondly, it is possible to make predictions about individual behavior in dynamic groups. Newcomers may influence cooperation within dynamic groups negatively via norm violation, group commitment and identification, or status processes. Research suggests that newcomers' unfamiliarity with group norms may contribute to the degeneration of cooperation within the group. *Thus I predict that if newcomers do not have access to group norms, then newcomer cooperation is low¹.* Likewise, as feelings of commitment aid the success and performance of the group, newcomers may be less likely

¹ As will be explained below, limitations with design prevent the current research from exploring this prediction. Newcomers had access to information about oldtimer contributions. Thus any differences in newcomer and oldtimer contributions cannot be attributed to uncertainty of group norms.

to cooperate when compared to oldtimers (Bauer et al 2007; Wech et al. 1998; Cini 2001). Similarly, group identification facilitates cooperation. Newcomers' lack of identification allows newcomers to act in self-interested (and thus less cooperative) ways. *Therefore, it is predicted that if group commitment and identification is low for newcomers, then newcomer cooperation is low.* Finally, because previous research indicates that newcomers hold low status positions within the group (Perretti and Negro 2006), it is expected that they will be less cooperative when compared to those who have high status, or the oldtimers. This is in line with previous research demonstrating that holding a high position within the status hierarchy is associated with cooperative behavior (Simpson, Willer, and Ridgeway 2012; Willer 2009). *Based on newcomers' low status, I predict that if newcomers are introduced to existing group hierarchies, then newcomer cooperation declines.* Using the predictions about newcomer behavior, one might expect that if newcomers' cooperation is low, then dynamic group cooperation is low.

Alternatively, one might look to the mechanisms driving oldtimers' degenerative cooperative behavior. Here, trust is important to group coordination. Newcomers introduce uncertainty and distrust into the group—whether it is distrust of the newcomers or existing oldtimers within the group (Kramer 1999; McCarter and Sheremeta 2013). Oldtimers adjust their behavior in reaction to the distrust in the group. *Consequently, as trust in the group decreases, oldtimer cooperation declines.* Relatedly, oldtimers also react to their greater anonymity within the group. As newcomers join groups, attention is redirected from existing group member behavior to the newcomers'. Oldtimers take advantage of the greater anonymity, exploiting the opportunity to gain (Dawes 1980;

Schuessler 1989). *I therefore predict that if oldtimer anonymity is high, then oldtimer cooperation declines.* Accordingly, drawing from these predictions, one might expect that if oldtimers' contributions decrease with the introduction of new group members, then group cooperation decreases.

I intend to test my prediction using data already collected, but not analyzed. The data were collected at the University of South Carolina in Fall/Spring 2012. The study collected data on dynamic groups, i.e., groups which grew over time. While the data were collected to test a series of unrelated hypotheses, they provide a very preliminary way of addressing a portion of the arguments outlined above. Specifically, they provide one test of whether dynamic groups lead to lower levels of cooperation and, if so, whether these lower levels of cooperation are driven primarily by the behaviors of newcomers, oldtimers, or both.

Design

All groups participated in a public good game. There were two conditions: whether the group was static or dynamic (namely whether it added members over time). In the static condition, as in most experimental studies of collective action, all participants began making contribution decisions in the first round of the public good game; this served as the control condition. In the second condition, not all participants began making decisions in the first round of the public good game. Instead participants were assigned to either be an active group member, or a bystander. As the rounds continued, bystanders were gradually added to the group until all participants were able to contribute to the public good. This condition was considered the growth condition. Each session was assigned to either the control or growth condition.

Participants

Participants were students in large introductory courses across the university. In return for their participation in the study, participants received a payment ranging from \$5-\$20 (depending upon their decisions and the decisions of their group members during the study). The study took around one hour of their time. A total of 125 participants took part in the study.

Procedure

Participants were scheduled in groups of seven. Completed in an open computer lab, participants were escorted to individual workstations upon arrival, where they were randomly assigned the participant number associated with that workstation. Participants were instructed to keep their participant numbers private from other group members and not to reveal their number at any point during the study, so as to guarantee the anonymity of each participant. Although participants were prohibited from communicating with one another, they were situated in the computer lab in a way that allowed them to view one another. Participants were spaced at workstations throughout the room so as to ensure each participant's privacy when making contribution decisions.

Prior to beginning the study each participant read and signed a consent form, followed by a pre-study survey containing social value orientation measures, as well as demographic information. After experimenters collected the paperwork from all seven participants, the study began. An experimenter read the instructions aloud, while participants followed along with their own copy. Periodically throughout the study, the experimenter would stop reading and prompt participants to answer a question on one of their quiz worksheets. The worksheets (5 in total) were designed to test their

understanding of the procedures. After reading through the instructions and answering all quiz questions, the public good game began.

In the control condition, all seven participants were assigned the role of active group member; that is, all seven participants began making contribution decisions in the first round, and throughout the study for a total of 17 rounds. Group members indicated how much they wished to contribute on their individual contribution slips. Experimenters collected the slips and entered their contributions into an excel worksheet, providing the experimenter with each participant's total earnings for the round. (Note, however, that individual contributions were de-identified. That is, participants did not know which group members contributed which amounts.) The experimenter then wrote each participant's contribution and total earnings for that round on a white board in the front of the room. Each group member was able to see the amount contributed and earned by each member. This condition allows us to roughly control for the decline in cooperation over time that is typically observed in static group experimental studies of collective action (Sell and Wilson 1999; Fehr and Gächter 2002). More generally, the condition offers a baseline against which to compare the growth condition.²

² Notice that when comparing the dynamic and control groups, there is a confound in the method—while the size of the control group stays constant, the dynamic group grows across time. This poses a problem for comparing cooperation between the two conditions. As it stands now, the confound prevents us from ruling out the possibility that larger control groups are as inclined to experience declining cooperation as the dynamic group. That is, if we found that dynamic group cooperation declines slower than static groups, this might be due to the initially smaller size of the dynamic group (as compared to the larger control group). Indeed, literature shows that small groups are more successful in organizing and coordinating group cooperation (Olson 1965; Kollock 1998; Yamagishi 1992). Multiple control groups of different sizes would have allowed us to hold growth constant, while varying newness in the group. However, as will be discussed below, there was not a significant difference between contributions in the current dynamic and control conditions. As such, there was no need for these additional conditions.

In the growth condition, the participants were assigned to one of two roles: active group member or observer. Three active group members began making contribution decisions in the first round, while the remaining four group members acted as observers. In the first round, active group members indicated their contribution decision on the worksheets. Observers also filled out worksheets—however rather than making contribution decisions, observers indicated their observer status. This was done to maintain the anonymity of active group members in the group. After experimenters collected and calculated the earnings, total earnings were written on the board where all group members (including observers) were able to view active group members' contributions and earnings for that round. That is, although observers were not able to make contribution decisions, they had access to the same information as active group members.

By providing newcomers with information about existing members' contribution decisions, newcomers gain access to group norms. Allowing newcomers to observe earlier decision rounds means that newcomers can identify group members' behavioral expectations for the group, eliminating uncertainty about what is expected of them. The foregoing argument predicted that newcomers' lack of group norm knowledge decreased cooperation in the group. However, because newcomers had access to this information, the earlier prediction about declines in cooperation resulting from newcomers' lack of knowledge of group norms cannot be tested in this study. Any differences in newcomer and oldtimer contributions cannot be attributed to confusion or uncertainty about group expectations and norms.

In the growth condition, after two rounds an observer was added to the public good game as an active group member. Once an observer became an active group member, he remained one for the remainder of the study. Every two subsequent rounds, another observer was added to the group until all observers had been added as active group members. The final observer was added on the ninth round, and the group continued making contribution decisions for eight more rounds.

Upon completion of the final round, participants were given a post-study survey that contained measures designed to assess solidarity, group coordination, and cohesion. Participants were paid based on their decisions and dismissed.

CHAPTER 5

RESULTS

I intended to analyze the data using multi-level data analysis, addressing whether, under these conditions, there is a decline in cooperation in dynamic groups and if so, whether it primarily stemmed from the lower contributions of newcomers, lower contributions from oldtimers, or both. Because of the nested nature of the data, the analysis required a three-level mixed model. Nested data violates the assumption of independence in traditional regression. Multi-level models account for the dependence of the observations.

Given that I am interested in predicting contributions from group members, contribution was modeled as a function of time (or round) and whether the member was a newcomer. Because newcomers were present only in the dynamic condition, the control condition was not included in the model. A test of nested models was conducted to specify the effect of time. It was determined that the functional form of time should be modeled linearly.

Before constructing the model, I looked strictly at the fixed effects to determine if contributions between newcomers and oldtimers did indeed differ. In the first model, newcomer status was defined as an observer's first two rounds in the public good game. The results from model 1 are presented in table 5.1. The effect of newcomer was non-significant; that is, while newcomers contributed slightly more than oldtimers, the difference was not significant ($p = 0.826$). The effect of round (or time) was significant,

indicating that as the rounds increased, contribution decreased by 0.07. This finding is in line with standard research on contribution decisions in public good games.

In the second model, newcomer status was limited to only those initial rounds in which the newcomer joined. That is, if the newcomer was added in round 3, he was a newcomer solely for that round. Thus, model 2 again only included the dynamic condition. Again, using contribution as the outcome and the same independent variables from the first model, newcomer was not significant. As in the first model, however, the effect round remained significant. As rounds increased, contributions decreased by 0.4.

Table 5.1. Coefficients from models specifying fixed effects.

	Model 1	Model 2	Model 3	Model 4
Round	-0.0685*	-0.3893*	-0.0117	-0.0326
Newcomer	0.0368	0.5325		
Dynamic_Condition			0.1165	-0.4220
Round*Dynamic_Condition				-0.0399

*p < 0.01

A third model was constructed to compare the dynamic and control (static) conditions. Contribution was modeled as a function of time and condition. Different from the previous two models, both the dynamic and control conditions were included in the model. The results of this test revealed that contributions were not significantly different between dynamic and control conditions. Although contributions in the dynamic group were slightly higher (0.117) compared to the control condition, the effect was non-significant (p = 0.215). Contrary to the earlier models, round was no longer significant.

Of interest, finding that round was no longer significant in the third model suggested that member contributions were different by round in the two conditions. A fourth and final model was constructed to determine whether this might be the case. In the fourth model, contribution was again modeled as function of time and condition. Different from the last model, the fourth model also included a term for the interaction between time and condition. Accordingly the model was constructed to determine whether the decline in contributions as time increased differed by condition.

The results of the model are presented in table 5.1. As in the previous model, neither round nor condition was significant. Although the interaction terms was also not significant, the model indicates that as round increases in the dynamic condition, contributions decline by .0399 units. Thus because neither the newcomer nor condition fixed effects were significant in any of the models, a multi-level model was unnecessary. Of note, all models were run twice—with and without the control variables of race and gender. There was little difference between the models; all effects remained non-significant.

CHAPTER 6

DISCUSSION

Past research of dynamic groups suggests that newcomers have a negative impact on group outcomes. Of interest to the current study, introducing newcomers to collectively oriented groups poses a threat to cooperation. While I expected to observe a decrease in cooperation in the dynamic groups, results revealed no significant difference in contribution decisions (and thus cooperation) between dynamic and control conditions.

While the literature suggests that newcomers should have a negative impact on cooperation, the current study failed to identify such an effect. To account for this, one might consider the design of the study. As noted earlier, the data were collected for another project, designed to address dynamic groups as a solution to collective action. The concepts of newcomers and oldtimers were not considered in the design of the study. As such, the current data may not have been as conducive to determining the effect of either subgroup on cooperation as other potential designs.

For example, because observers were not separated from the group in the initial rounds of the public good game, they may have come to view themselves as part of the group. That is, although they were not able to contribute to the group fund, observers still may have felt like group members because they were included in the instructional phase of the study with all other participants. Thus, in the rounds where observers were added, they may already have perceived themselves as existing group members.

Although they could not contribute in the initial rounds of the study, observers may have

viewed themselves as restricted or limited members of the group, rather than newcomers. Put differently, observers may have viewed their ability to contribute later on in the game as gaining rights or shedding limitations, instead of perceiving themselves as completely new members. This could affect contributions in a number of ways. For instance, a status-based explanation might suggest that, if observers felt like group members in the initial rounds, members could not be differentiated based on the characteristic. As such, we should not expect a status-based process to occur.

Most likely, in my view, newcomers in this study had access to the same information as oldtimers. As noted earlier, one key reason that prior work suggests that dynamism impacted contributions in groups is newcomers' lack of knowledge about norms. But here there was no difference in oldtimers' and newcomers' knowledge of norms. This likely solved the newcomer problem. Future research might manipulate whether newcomers do or do not have access to prior decisions, as well as whether oldtimers know that newcomers have this information.

It might be useful to also consider how newcomers and oldtimers were operationalized. In the current study oldtimer was operationalized in one of two ways. Initial active group members were considered oldtimers. After a newcomer's second round, the newcomer was considered an oldtimer. Therefore, a participant was classified as an oldtimer at the beginning of his third round and all subsequent rounds. Future research might adjust the operationalization of oldtimer. It might be the case that oldtimer tenure in the group was not long enough to foster and develop feelings of group commitment. Because research indicates that involvement and commitment in the group are important factors facilitating identification, oldtimers may not have come to identify

with the group. Thus applying the prediction that lack of group identification leads to lower cooperation, one might expect little to no difference between oldtimer and newcomer contributions with the current design. Instead, consider a scenario where active group members participated in two public good games. In the first game, only active group members participate and make contribution decisions. In the second game, newcomers are introduced following the procedure from the present study. Thus, existing group members would have more opportunity to confirm their roles as oldtimers. Adjusting the method to lengthen their tenure and involvement in the group before the introducing newcomers may produce the expected difference suggested by previous literature.

Alongside this idea, the present study operationalized newcomer as either an observer's first or first two rounds in the public good game. This decision was based on the procedure—every two rounds a new member was added to the group, and the current newcomer transitioned into the oldtimer classification. An alternative way to operationalize newcomer might include the member's first three or four rounds in the game (that is, the next newcomer would not be added for three to four rounds). A newcomer's transition into an oldtimer is a process—it takes time for the new member to integrate into the group. It could be the case that even after two rounds in the game, the newcomer may still view the group as novel. Classifying him as an oldtimer after such a short tenure in the group could have reduced any impact we might have otherwise observed—that is, finding no differences between newcomer and oldtimer contributions may be due to the fact that newcomers still felt and behaved like newcomers in those rounds in which they were classified as oldtimers. If this was the case, then we should not

expect differences between the contributions. Thus, a different method (and subsequently operationalization of newcomer) might tap into this process more effectively.

Finally, the null findings suggest that perhaps cooperation in dynamic groups does not differ from static groups. This might be explained by Sherif's (1935) classic study of social influence. Sherif found that individuals are strongly influenced by the judgments of others, particularly in situations of where the nature of the task is uncertain (1935). In this case, individuals altered their own judgments to conform to those of confederates (Sherif 1935). Subsequent work showed that individuals who were initially influenced by confederates go on to influence other individuals' judgments (MacNeil and Sherif 1976; Jacobs and Campbell 1961). That is, past judgments from earlier experiences carried into a new group and influenced new participants. These new participants then went on to influence yet a different group. This provides evidence for the idea that norms are transmitted through generations of groups. Old members influence the judgments of new members, prompting newcomers to conform to and adopt existing norms (MacNeil and Sherif 1976). Due to the uncertainty of the situation, newcomers may adopt existing norms to reduce the uncertainty. The newcomer may simply mimic the behaviors of oldtimers to avoid appearing incompetent in the uncertain situation.

This influence process makes early contributions very important. If newcomers do indeed adopt the norms of older members, newcomers' behaviors should be strongly influenced by the previous behaviors of oldtimers. For instance, if cooperation in the group is already low before the newcomer joins the group, it seems reasonable to expect subsequent newcomer cooperation will also be low. When cooperation is low to begin with, the newcomer has little incentive to deviate from the norm—in fact, it will be costly

for the newcomer to do so. Deviating from established norms might draw unwanted attention and criticisms from other group members, creating an uncomfortable environment for the newcomer. Thus, early contributions play a critical role in whether the dynamic group is able to become a successful group. Future work might more explicitly address the path dependence of cooperation in dynamic groups.

While the current research did not show any evidence that newcomers negatively impacted cooperation, future research should further address the effects of newcomers in light of the issues outlined above. Implementation of the suggestions listed might be the first step in further exploring whether introducing newcomers to a group impairs cooperation. If the effect is established, research can then turn its attention to tracing the source of the decline to either newcomers, or oldtimers' reactions to the arrival of newcomers. If future work finds that that one subgroup is responsible for the decline, it is important to identify those mechanisms driving the different contribution behaviors of newcomers and oldtimers. For now, however, the initial effect needs further clarification and support before probing further into the investigation of potential mechanisms.

REFERENCES

- Ahn, T., E. Ostrom, D. Schmidt, R. Shupp, and J. Walker. 2001. "Cooperation in PD games: Fear, greed, and history of play". *Public Choice* 106(1-2):137-155.
- Anderson, C., and G. Kilduff. 2009. "The pursuit of status in social groups". *Current Directions in Psychological Science* 18(5): 295-298.
- Ashforth, B. and F. Mael. 1989. "Social Identity Theory and the Organization." *Academy of Management* 14(1): 20-39.
- Axelrod, R. 1984. *The Evolution of Cooperation*. New York: Basic Books.
- Bauer, T., T. Bodner, B. Erdogan, D. Truxillo, and J. Tucker. 2007. "Newcomer adjustment during organizational socialization: A meta-analytic review of antecedents, outcomes, and methods." *Journal of Applied Psychology* 92(3), 707-721.
- Billig, M. and H. Tajfel. 1973. Social categorization and similarity in intergroup behavior. *European Journal of Social Psychology* 3(1): 27-52.
- Bolton, G., E. Katok, and A. Ockenfels. 2005. "Cooperation among strangers with limited information about reputation". *Journal of Public Economics* 89(8): 1457-1468.
- Berger, J., B. Cohen and M. Zelditch. 1972. "Status characteristics and social interaction." *American Sociological Review* 37(3): 241-255.
- Berger, J., M. Fisek, R. Norman, and M. Zelditch Jr. 1977. *Status characteristics and social interaction: An expectation-states approach*. New York: Elsevier.
- Berger, J., S. Rosenholtz & M. Zelditch. 1980. "Status organizing processes". *Annual review of sociology* 6: 479-508.
- Brewer, M. 1999. "The psychology of prejudice: Ingroup love and outgroup hate?". *Journal of social issues* 55(3): 429-444.
- Choi, H. and L. Thompson. 2005. "Old wine in a new bottle: Impact of membership change on group creativity." *Organizational Behavior and Human Decision Processes* 98(2): 121-132.

- Cini, M. 2001. "Group newcomers: From disruption to innovation". *Group Facilitation: A Research and Applications Journal* 3: 3-12.
- Dawes, R. 1980. "Social Dilemmas". *Annual Review of Psychology* 31: 169-193.
- De Cremer, D. 1999. "Trust and fear of exploitation in a public goods dilemma". *Current Psychology* 18(2):153-163.
- Dirks, K. and D. Ferrin. 2001. "The Role of Trust in Organizational Settings". *Organization Science* 12(4): 450-467.
- Ellemers, N., R. Spears, and B. Doosje. 1997. "Sticking Together or Falling Apart: In-Group Identification as a Psychological Determinant of Group Commitment Versus Individual Mobility". *Journal of Personality and Social Psychology* 72(3): 617-626.
- Feldman, D. 1984. "The Development and Enforcement of Group Norms". *Academy of Management Review* 9(1): 47-53.
- Fehr and Gächter. 2002. "Altruistic punishment in humans." *Nature* 415 (6868): 137-140.
- Fisher, R. and K. Wakefield. 1998. "Factors leading to group identification: A field study of winners and losers". *Psychology & Marketing* 15(1): 23-40.
- Flynn, Francis, R. Reagans, E. Amanatullah, and D. Ames. 2006. "Helping one's way to the top: Self-monitors achieve status by helping others and knowing who helps whom". *Journal of Personality and Social Psychology* 91: 1123-37.
- Haley, K. and D. Fessler. 2005. "Nobody's watching?: Subtle cues affect generosity in an anonymous economic game". *Evolution and Human behavior* 26(3): 245-256.
- Harden, R. 1982. *Collective Action*. Baltimore Resources for the Future.
- Heckathorn, D. 1989. "Collective action and the second-order free-rider problem". *Rationality and Society*, 1(1), 78-100.
- Hellman, C. and W. McMillin. 1994. "Newcomer socialization and affective commitment." *Journal of Social Psychology* 13(4): 261-262.
- Hogg, M. & J Turner. 1985. "Interpersonal attraction, social identification and psychological group formation" *European Journal of Social Psychology* 15(1): 51-66.
- Jacobs, R., and D. Campbell. 1961. "The perpetuation of an arbitrary tradition through several generations of a laboratory microculture". *The Journal of Abnormal and Social Psychology*, 62(3), 649.

- Jetten, J., M. Hornsey, R. Spears, S. Haslam, and E. Cowell. 2010. "Rule transgressions in groups: The conditional nature of newcomers' willingness to confront deviance". *European Journal of Social Psychology* 40(2): 338-348.
- Jones, G. 1986. "Socialization Tactics, Self-Efficacy, and Newcomers' Adjustments to Organizations". *The Academy of Management Journal* 29(2): 262-279.
- Kerr, N. 1992. Efficacy as a causal and moderating variable in social dilemmas. In *Social Dilemmas: Theoretical Issues and Research Findings*, ed. W Liebrand, D Messick, H Wilke. Oxford: Pergamon: 59-80.
- Kerr, N. and C. Kaufman-Gilliland. 1994. "Communication, Commitment, and Cooperation in Social Dilemmas". *Journal of Personality and Social Psychology* 66(5): 513-529.
- Kollock, P. 1994. The Emergence of Exchange Structures: An Experimental Study of Uncertainty, Commitment, and Trust'. *American Journal of Sociology* 100(2): 313-345.
- . 1998. "Social Dilemmas: The Anatomy of Cooperation." *Annual Review of Sociology* 24: 183-214.
- Komorita, S., J. Sweeney and D. Kravitz. 1980. "Cooperative choice in N-person dilemma situation". *Journal of Personality and Social Psychology* 38(3): 504-516.
- Kramer, R. 1999. "Trust and distrust in organizations: Emerging Perspectives, Enduring Questions" *Annual Review of Psychology* 50: 569-598.
- Kramer, R. and M. Brewer. 1984. "Effects of group identity on resource use in a simulated commons dilemma." *Journal of Personality and Social Psychology* 46(5): 1044-1057.
- Lovaglia, M., and J. Lucas, J. Houser, S. Thye, and B. Markovsky. 1998. "Status Processes and Mental Ability Test Scores". *American Journal of Sociology* 104(1): 195-228.
- Levine, J., and R. Moreland. 1990. "Progress in Small Group." *Annual Review of Psychology* 41: 585-634.
- . 1994. "Group socialization: Theory and research". *European review of social psychology*, 5(1), 305-336.
- MacNeil, M. and M. Sherif. 1976. "Norm change over subject generations as a function of arbitrariness of prescribed norms." *Journal of Personality and Social Psychology*, 34(5), 762.

- Madsen, T., E. Mosakowski, and S. Zaheer. 2003. "Knowledge Retention and Personnel Mobility: The Nondisruptive Effects of Inflows of Experience" *Organization Science* 14(2): 173-191.
- Mathieu, J. and D. Zajac. 1990. "A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment". *Psychological Bulletin* 108(2): 171-194.
- McCarter, M, and R. Sheremeta. 2013. "You Can't Put New Wine in Old Bottles: The Effect of Newcomers on Coordination in Groups." *PLoS One* 8(1): e55058.
- Moreland, R. and J. Levine. 1982. "Socialization in Small Groups: Temporal Changes in Individual-Group Relations". *Advances in experimental social psychology* 15: 137-192.
- . 2002. "Socialization and trust in work groups". *Group Processes & Intergroup Relations* 5(3): 185–201.
- Morrison, E. W. 2002. "Newcomers' relationships: The role of social network ties during socialization". *Academy of management Journal* 45(6): 1149-1160.
- Olson, M. 1965. *The logic of collective action: Public goods and the theory of group*. Cambridge: Harvard University Press.
- Ostrom, E. 1990. *Governing the commons: The evolution of institutions for collective action*. Cambridge university press.
- . 2000. "Collective action and the evolution of social norms". *The Journal of Economic Perspectives*, 137-158.
- Ostrom E., J. Burger, C. Field, R. Norgaard, and D. Policansky. 1999. "Revisiting the commons: Local lessons, global challenges". *Science* 284: 278–282
- Perretti, F. and G. Negro. 2006. "Filling empty seats: How status and organizational hierarchies affect exploration versus exploitation in team design". *Academy of Management Journal* 49(4), 759-777.
- Ridgeway, C. 1978. "Conformity, group-oriented motivation, and status attainment in small groups". *Social Psychology* 41:175–188.
- . 1982. "Status in groups: The importance of motivation". *American Sociological Review* 47:76-88.
- Rollag, K. 2004. "The Impact of Relative Tenure on Newcomer Socialization Dynamics". *Journal of Organizational Behavior* 25(7): 853-872.

- Schuessler, R. 1989. "Exit threats and cooperation under anonymity". *Journal of Conflict Resolution* 33(4): 728-749.
- Sell, J. and R. Wilson. 1999. "The maintenance of cooperation: Expectations of future interaction and the trigger of group punishment." *Social Forces* 77(4): 1551-1571.
- Sherif, M. 1935. "A study of some social factors in perception". *Archives of Psychology* 27 (187), 60.
- Simpson, B., R. Willer, and C. Ridgeway. 2012. "Status Hierarchies and the Organization of Collective Action". *Sociological Theory* 30(3): 149-166.
- Stevens, J., J. Beyer, and H. Trice. 1978. "Assessing personal, role, and organizational predictors of managerial commitment. *Academy of Management Journal* 21(3): 380-398.
- Stiff, C., and M. Van Vugt. 2008. "The Power of Reputations: The Role of Third Party Information in the Admission of New Group Members." *Group Dynamics: Theory, Research, and Practice* 12(2): 155–166.
- Sweeny, J. 1973. "An experimental investigation of the free-rider problem." *Social Science Research* 2(3): 277-292.
- Tajfel, H. 1970. "Experiments in intergroup discrimination." *Scientific American* 223(5): 96-102.
- . 1982. "Social psychology of intergroup relations" *Annual Review of Psychology* 33: 1-39.
- Terry, D. and M. Hogg. 1996. "Group Norms and the Attitude-Behavior Relationship: A Role for Group Identification" *Personality and Social Psychology Bulletin* 22(8): 776-793.
- Terry, D., M. Hogg, and K. White. 1999. "The theory of planned behavior: Self-identity, social identity, and group norms" *British Journal of Social Psychology* 38: 225-244.
- Weber, Roberto A. 2006. "Managing Growth to Achieve Efficient Coordination in Large Groups." *The American Economic Review* 96(1): 114-126
- Wech, B., K. Mossholder, R. Steel, and N. Bennett. 1998. "Does Work Group Cohesiveness Affect Individuals' Performance and Organizational Commitment? A Cross-Level Examination" *Small Group Research* 29(4): 472-494.
- Willer, R. 2009. "Groups Reward Individual Sacrifice: The Status Solution to the Collective Action Problem." *American Sociological Review*. 74:23-43.

Zacharia, G. and P. Maes. 2000. "Trust management through reputation mechanisms"
Applied Artificial Intelligence 14: 881-907.