A PUBLIC POLICY APPROACH TO STATUS INTERVENTIONS AND UNINTENDED CONSEQUENCES

by

Cayce Jamil

A dissertation submitted to the faculty of
The University of North Carolina at Charlotte
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in
Public Policy

Charlotte

2023

Approved by:

_____

Dr. Joseph Dippong

_____

Dr. William P. Brandon

_____

Dr. Martha Kropf

_____

Dr. Artie Zillante

_____

Dr. Will Kalkhoff

ABSTRACT

CAYCE JAMIL. A Public Policy Approach to Status Interventions and Unintended Consequences.
(Under the direction of DR. JOSEPH DIPPONG)

This dissertation examines whether there are unintended consequences that emerge from status interventions in task groups in relation to cohesion and solidarity. Past theorists have argued that inconsistent status structures produce weaker levels of cohesion and solidarity in comparison to consistent status structures. To contextualize the issue of group processes as they relate to public policy, I first introduce the complexity framework for public policy and then outline the history of group processes and the concept of solidarity. Despite centuries noting the complexity of group processes and their implications, policymakers remain myopically focused on either individual responsibility or social structure as the root of social inequality.

After providing a theoretical overview, I then proceed to discuss the procedure of the study more in-depth. Data come from an online experiment involving mixed-sex dyads interacting in one of three conditions. Participants individually completed an ambiguous problem-solving task and then worked together over Zoom audio to form a group decision. In the three conditions, participants were either given no performance feedback before the problem-solving task or were informed the male or the female participant performed better on a pre-test related to the task. The conversations were recorded and analyzed using measures related to paraverbal synchronization and accommodation.

In terms of self-reported cohesion, there appeared to be a difference, albeit a weak one, in only the inconsistent-status condition, with female participants reporting higher levels of cohesion in comparison to males. However, in terms of solidarity, there was no significant

difference between the conditions. Although inconsistent status structures were associated with

weaker perceptions of cohesion, it did not appear to impact solidarity like theorists have

suggested. Status structures do not appear to impact group solidarity. The nature of group

membership in conjunction with status consistency/inconsistency may produce the significant

differences in solidarity that theorists have suggested. To date, there has been little empirical

examination of how status consistency affects cohesion and solidarity. Relatedly, the current

study advances the research on vocal accommodation by analyzing status and solidarity

simultaneously. The implications of the findings on status interventions for public policy, in

particular the nature of feasibility strategies, are discussed in detail at the end.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AAD   average absolute distance (vocal measure of group solidarity)

AAR   acoustic analysis result (vocal measure of individual status)

FFT   fast Fourier transform

GEE   generalized estimating equations

R_Average variable average correlation (alternative vocal measure of group

       solidarity)

RCT   relational cohesion theory

SCT   status characteristics theory

CHAPTER 1: INTRODUCTION

Despite decades of policy efforts to overcome discrimination based on gender and race, systemic inequalities remain. When members from disadvantaged groups are hired or promoted to prestigious positions, there appear to be unintended consequences that accompany social mobility. For instance, even when women successfully pass through barriers like the "glass ceiling" and attain prestigious positions, they often encounter additional barriers like the "glass cliff" in which the positions they fill have high risks for failure (Ryan & Haslam, 2007). Even more, when women in prestigious roles succeed in these positions, they are often perceived to be either too aggressive in the position or not assertive enough (Foschi, 2000). In other words, when women succeed in breaking through structural barriers, they find another host of barriers waiting for them (Webber & Giuffre, 2019). While many assume explicit discrimination drives the process, sociological research repeatedly stresses implicit expectations as the key to explaining systemic disadvantage. Implicit expectations occur through social interaction and operate as an "invisible hand" which works to preserve inequality (Ridgeway, 1997). In what follows, I theorize and examine some dynamics within small groups that lead to unexpected drawbacks for members from disadvantaged groups.

In the present study, I draw on two well-established theories within social psychology, namely status characteristics theory (SCT) and relational cohesion theory (RCT). SCT, which fits under the expectation states theoretical research program, and examines how cultural status beliefs intertwine with expectations to shape group inequality. An expectation is an actor's anticipation of the behavior between two or more actors and are largely unconscious beliefs related to an individual's performance ability. Within collectively oriented and tasked-focused groups, expectation states theory states that a hierarchy will spontaneously emerge under

conditions of task focus that stabilizes itself based on the shared expectation of its members

(Berger & Wagner, 2007). Expectations related to a performance are intertwined with status.

Status is defined as "inequality based on differences in honor, esteem, and respect" (Ridgeway,

2014, p. 2). Status hierarchies have a dual nature in that they are a set of implicit rules and that

their enactment results in differences in the material distribution of resources. In effect, status

hierarchies operate as self-fulfilling prophecies (Merton, 1948). Once interactants have assigned

meaning to a situation, they tend to work together to maintain their definition of the situation. As

such, status is best understood as taken-for-granted shared expectations and norms that groups

utilize in order to interact efficiently (Kroska, 2014).

RCT explains the development of stable bonds between interactants and feelings of

cohesion and solidarity. Interaction requires that actors depend on each other to "pull off" an

encounter (Lawler, 2001; Thye et al., 2014). As a consequence, whenever individuals engage in

a joint activity, and all interaction requires some sense of jointness, cohesion and solidarity are

argued to be present (Turner, 2002). Cohesion can be defined as feelings of attraction and

repulsion between interactants (Friedkin, 2004). RCT predicts that successful interactions

produce positive emotions for interactants that are associated with cohesion. Although similar,

relational cohesion and solidarity are distinct concepts. Solidarity is a structural feature and can

be defined as the "feeling of interpersonal connectedness that binds members of society

together" (Kalkhoff, Dippong, & Gregory, 2011, p. 936). Greater solidarity leads to more

interaction within groups, more compliance with group norms, more satisfaction from the group,

and more efficiency in achieving the group's goals (Markovsky & Lawler, 1994). Relational

cohesion can be understood as an individual-level phenomenon, differing from person to person,

while solidarity can be seen as a group-level phenomenon (Shelly & Webster, 1997). In general,

successful interaction produces relational cohesion that then generates solidarity. Solidarity, then, feeds back onto cohesion. Positive emotions deriving from an interaction strengthen cohesion which, in turn, produces solidarity. In contrast, negative emotions are thought to weaken cohesion and inhibit solidarity (Lawler, 2001).

Empirical examination of the relationship between status, cohesion, and solidarity can shed new light on the development and maintenance of solidarity and inequality in small groups in at least three ways. First, understanding how status consistency affects solidarity can help identify mechanisms through which status structures stabilize or destabilize groups. Second, such knowledge could prove beneficial for developing new status interventions that maximize positive group outcomes. Third, understanding the relationship between status consistency and group cohesion can serve to improve individual outcomes by increasing group members' satisfaction with the decision-making process and outcomes (e.g., feeling like a valued member of the group; feeling confident on the group's decisions). Fourth, the methodology contributes to the recent developments in the scientific understanding of human vocal dynamics as a non-conscious behavioral mechanism of both status and solidarity. Overall, the study also contributes to the development of state-of-the-art measurement tools for analyzing key group outcomes.

In the present dissertation, I first elaborate on the significance of group processes for the field of public policy. Next, I give a theoretical overview of status, cohesion, solidarity, along with deriving several hypotheses. Then, I review the research on vocal synchrony and accommodation as a reliable measure of status and solidarity. I then introduce the methodology and experimental procedure. Next, I review the results of the experiment followed with a discussion of the findings for social theory. Lastly, I discuss the policy implications of status interventions followed by a brief conclusion.

CHAPTER 2: PUBLIC POLICY AND GROUP PROCESSES

In Stone's *Policy Paradox and Political Reason*, she writes that "the study of public policy… is remarkably devoid of theory" (Stone, 1988, p. 9). The field's inability to explain and predict policy implementation in the real world is arguably its greatest weakness. Instead of theory, Public Policy scholars spend much of their focus attempting to correct the irrationalities that result from politics. Some critics go so far as to argue that Public Policy scholars are simply advocates for political parties and, therefore, their research cannot be considered scientific (Smith & Larimer, 2009). Consequently, there has been a push in recent decades within policy studies towards cognitive and interdisciplinary approaches (Leach & Sabatier, 2005). However, there is a notable lack of coherent theory-building within the field (Sabatier, 2007). In their influential *The Public Policy Theory Primer*, Kevin Smith and Christopher Larimer (2009, p. 224) write: "What is needed is a theory that can explain and predict how people will respond to policy images and policy outcomes. Such a theory is likely to be interdisciplinary in nature, with a strong emphasis in evolutionary psychology, neuroscience, and behavioral economics."

Theory and method are inextricably linked (Cohen, 1989). Without proper methodological tools, theoretical research programs, and a scientific approach to theory more generally, public policy will remain a low consensus discipline. As Colander & Kupers (2014, p. 15) state: "Generally, policy isn't based on cutting-edge techniques- it's based on highly simplified policy frames." According to Collins (1994), the incorporation of technological advancements into research is the backbone to building consensus as well as creating rapid streams of discoveries. In this view, the social sciences in general, which includes public policy, are considered "low-consensus fields" precisely because there is a lack of precise methodological tools. In contrast, fields like biology and neuroscience are considered "high-consensus, rapid

discovery" due to their incorporation of significant methodological advancements like EEG brain scans into their research. While a "biological hurricane" occurred within the last century, very little of these methodological insights have been pulled into the social sciences (Kalkhoff et al., 2016). In sum, for Public Policy to become a serious discipline, it needs to incorporate, not only more scientific theories in the dialogue, but also methodological advancements.

Historically, policymakers have worked in a formalistic vacuum barred from contact with concrete social life. The top-down implementations of policy run in vicious circles, often contradicting each other, and while generally well-intentioned, often compound the problem (Colander & Kupers, 2014). In policymakers' oversimplified models of reality, society is reduced to a collection of individuals that can be mechanically controlled from an ivory tower instead of being seen as a complex evolving system. As Mueller (2020, p. 312) states, "policy fails when complex problems are addressed using standard linear and reductionist approaches that presuppose more knowledge and control than is ever possible in such situations." Reductionist approaches to social phenomena rely on a linear logic in which the sum of the parts is equal to the whole. In other words, policymakers oftentimes assume away critically important aspects of behavior because they seek to simplify social reality when making policy decisions. In the context of discrimination, policymakers tend to individualize the parts of the system and assume that discrimination is the result primarily of individuals' stable prejudices and beliefs rather than an emergent phenomenon within groups (Liebowitz & Zwingel, 2014). In general, emergent phenomena involve overlooked variables and dimensions. Only in retrospect do the solutions involving emergent phenomena tend to appear obvious. As Colander and Kupers (2014, p. 130) emphasize, complexity contains "emergent properties that never could be predicted from the knowledge of their parts. Thus, understanding must come from a combined

knowledge of the system and its history." Ultimately, the role of theory is to explain complex

reality as closely as possible (Cohen, 1989).

Policymakers need to abandon the illusion of being able to centrally control agents and

society more generally. Not only is this approach to public policy ineffective but it also serves to

legitimate strict hierarchal structures (Colander & Kupers, 2014). As the Nobel Memorial prize

winner in Economic Sciences Elinor Ostrom (1990) demonstrated, policymakers have come to

false conclusions on certain phenomena by just holding unchallenged assumptions. After Ostrom

studied successful examples of common pool resources, some of which had been around for

centuries, she pushed back on Hardin's (1968) "tragedy of the commons" and Olson's (1965)

"logic of collective action" conclusions about group behavior. Instead of pure rationality, people

utilize a wide array of heuristics and norms to solve problems. Therefore, rather than simplifying

social reality, the emerging complexity framework within public policy emphasizes the

importance of experimentation for providing a safe and controlled environment to test policies

(Mueller, 2020). Nonetheless, accepting complexity as a key feature of social reality implies

policy will not be as clearcut and helpful as policymakers may aspire to be. Systemic change can

really only be a result of institutional change, not just by reforming standardized policies

(Colander & Kupers, 2014).

Arguably more than anything else, path dependency needs to be taken into account when

designing social policy. Within processes that are path dependent like most social processes, the

past strongly influences future behavior. Once patterns of social behavior become established,

they are generally difficult to undo. These self-reinforcing practices are important to take into

consideration because they tend to form barriers that lock the past in the present (Ghezzi &

Mingione, 2007). As Colander and Kupers (2014, p. 13) emphasize, "you have to consider the

interconnectedness of the parts together with the parts themselves, which implies that in a complex system, the whole is not necessarily equal to the sum of its parts." By focusing on the parts and not the emergent properties of groups, public policy will continue to come up short. "Public policies in non-linear, emergent, non-ergodic, evolutionary, and cognitively biased domains are even harder to get right and recognizing that fact, not misjudging it, is the first step to avoid failure (Mueller, 2020, p. 323)." In other words, to develop successful social policies, public policy must take into consideration the fact that groups have emergent properties and individuals are ultimately dependent on this social fabric (Mueller, 2020).

Indeed, the insight that the whole can be greater than the sum of its parts is the rationale for the study of group processes altogether. Turning to the emergence of sociology in the early 19th century for a moment, the French Revolution implemented the thought of the Enlightenment that focused on the relationship of the individual with the state above all else. Before the Revolution, France still contained a large amount of medievalism, namely a powerful church, guilds, universities, patriarchal families, communes, and diversified legal structures (Nisbet, 1943, p. 157). The Enlightenment philosophies targeted these intermediate groups who were associated with feudal tyranny. In many ways, the Revolution embodied the ideas of the Enlightenment in that traditional intermediate groups were demolished and consolidated by the French State. Robespierre, following Rousseau, even went so far to insist that children should be taken away from their families and reared in common by the state. Reacting against the obliteration of intermediate groups, the concept of a "social group" proliferated at this time (Nisbet, 1943, pp. 159-169).

To thinkers like Saint-Simon and Auguste Comte that criticized the "administrative despotism" of the French Revolution, the increased centralization in the hands of the state merely

served to create a rootless mass in which totalitarian leaders flourished. By calling on the state to be the key source of social integration, the Revolution accelerated disorganization and ultimately weakened social solidarity. In reaction to the social turmoil, these early social scientists rephrased the problem of order altogether. Instead of focusing on the relationship between the atomized individual with the state, they made the intermediate social groups the focal point in the establishment of social order. (Nisbet, 1943; Hayward, 1959; Metz, 1999).

Indeed, the very concept of "solidarity" is a legacy of the French Revolution that comes out of the work of the French social thinkers of the early 19th century. The etymological roots of the term derive from a legal concept in Roman law that implied a common responsibility for repaying debts, 'in solidum', denoted a sense of being bound to a group (Hayward, 1959). Auguste Comte, the great popularizer of solidarity, used the term to denote a reciprocal dependence between all living animals and based the concept on the laws of biology. For Comte, solidarity was the central mechanism associated with social consensus and served as a remedy for atomization (Metz, 1999, p. 194). Later, Emile Durkheim would make solidarity the key group process within the emerging field of sociology. He argued that solidarity, as opposed to utility, is the primary motivator behind individual decision-making as well as the building block on which utilitarian transactions occur. Durkheim (1933, p. 398) defined solidarity as "the totality of ties which bind each of us to society, which make a unitary, coherent aggregate of the mass of the mass individuals." In this conception, solidarity, and group processes more generally, are essentially microscopic and ephemeral things that are being regenerated anytime interactants reconvene (Collins, 1988, p. 163). In other words, social order relies above all on the affective ties of solidarity that interactants form between each other (Parsons, 1951).

During social interaction, minds are thought to partially "fuse" and "interpenetrate" through symbolic and non-symbolic communication. This partial fusion of minds lays at the base of group-level processes (Blumer, 1936, Gurvitch, 1941). From the discovery of mirror neurons to the increased appreciation of non-conscious processes, the evidence for a biosocial basis to interaction continues to accumulate overwhelming evidence (Kalkhoff et al., 2011; Kalkhoff et al., 2016). Along with solidarity, the other key group processes are generally thought to be power and status (Kemper, 2011). Power, status, or some combination of the two, shape how interactants rank themselves in comparison to others and are the key dynamics involved in social hierarchy (Van Kleef & Cheng, 2020; Chapias, 2015; Koski, Xie, & Olson, 2015; Fiske, 2010; Weber, 1968). Power is distinct from status in that it is rooted in the control over desirable resources, usually material but can also be symbolic. Power is possessed by an individual or group and is generally thought of as the ability to coerce another without their consent. In contrast, status is based on the evaluations by others. Status is *given* while power is *taken*. While power is generally based on material resources, status is based on cultural beliefs. Essentially, status is a shared social ranking based on differences in respect, esteem, and honor. In other words, status hierarchies are *consensual* and guided by taken-for-granted norms and cultural beliefs (Mannix & Sauer, 2006; Magee & Galinsky, 2008; Ridgeway, 2019; Van Kleef & Cheng, 2020).

Over the course of the 20th century and into the early 21st century, the evidence behind the preeminence of group processes in human behavior continues to accumulate. From cladistic analysis of hominoids to comparative neurology and ecological analysis with other great apes, there appears to have been powerful selection pressures on hominins to increase sociality and group formation starting around 10 million years ago when they were pushed out of arboreal

habitats and into the predator-ridden savannahs of Africa (Turner & Maryanksi, 2012). In the savannah, apes are at a major disadvantage in that they are slow, noisy, visually dominant in an environment where smell and sound travel far. Apes, unlike monkeys, do not have bioprogrammers for strong group ties, and are generally individualistic. Tellingly, the brain sizes of hominins roughly tripled over the last several million years (Turner, Maryanski, Peterson, & Geertz, 2017, p. 83). Group processes, then, appear to be "a set of *indirect routes* to generating groups among animals that did not exhibit stable social ties in permanent groupings" (Turner & Maryanski, 2012, p. 13, emphasis in original). In other words, although humans are not "hard-wired" for groups like monkeys or dogs, humans have a palette of capacities and propensities that allow us to be more group-oriented in comparison to other apes. For example, humans have a propensity to focus on the eyes and face of others, to assess reciprocity and fairness in exchange, to be aroused by collective emotions, and for their body's to rhythmically synchronize with others. In addition, humans have the capacity to mimic the gestures and empathize with others, to role-take, to see themselves as an object, and to assess the relative status of others (Turner, 2020, p. 49).

Overall, then, group processes need to be considered integral to the field of public policy. Without taking into account the complexity of human behavior, policymakers end up designing policies that don't align with concrete reality. As James C. Scott (1998, p. 318) argues: "A mechanical application of generic rules that ignores these [local] particularities is an invitation to practical failure, social disillusionment, or most likely both." Instead of presupposing more control and knowledge of situations than is possible, policymakers should take more of a "bottom-up" approach that seeks to influence these complex systems instead of control them (Mueller, 2019). Fortunately, not only have social scientists developed an array of theories, but

they have also begun to incorporate technological advancements into their methodology. In what follows, I utilize two sociological theories as well as an innovative methodological tool to assess how social inequality operates within small groups.

CHAPTER 3: THEORETICAL FRAMEWORK

Unconscious biases based on expectations can alter the perception of a performance (Merton, 1948). Social psychologists refer to these types of cognitive and affective structures as *performance expectations.* Performance expectations reflect non-conscious assumptions held by a group regarding how they anticipate group members will perform on a task (Berger, Ridgeway, Fisek, & Norman, 1998). SCT explains how status beliefs related to group members' overt characteristics create performance expectations that form much of the basis for how individuals work together on a collective task. According to SCT, performance expectations arise based on the specific and diffuse status characteristics of the interactants. Specific status characteristics "refer to an individual's expectations to perform in a clearly defined and specific situation. They are general [or diffuse] if they are not restricted to any specified situations (Berger et al., 1998, p. 381)." Specific status characteristics refer to expectations for how an individual will perform in a fairly delimited range of task situations. In contrast, diffuse status characteristics affect expectations that arise in a broad array of circumstances, and apply to a seemingly endless array of task situations. Diffuse status characteristics, like gender, race, class, and age, are social categories that interactants nearly always impute onto the individual they are interacting with (Ridgeway & Nakagawa, 2014). SCT predicts that individuals who possess the advantaged state of diffuse and/ or specific status characteristics will: 1) be evaluated more positively; 2) exert more influence over group decisions; 3) be given more opportunities to contribute; and 4) perform more task outputs (Berger et al., 1998).

Status can be defined as "a position, occupied by an individual, standing in relationship to at least one other person, occupied by another person (Turner, 2002, p. 192)." Status is based on shared cultural beliefs related to prestige and dominance (Henrich & Gil-White, 2001; Cheng et

al., 2013). Status hierarchies have a dual nature in that they are a set of implicit rules and that their enactment results in differences in the material distribution of resources. Not only is status a shared heuristic that a group uses to interact, but status also legitimizes power hierarchies in that it shapes perceived merit (Ridgeway, 2019).

In effect, status hierarchies work as self-fulfilling prophecies. Past research finds that humans working together in groups nearly always spontaneously organize themselves into a durable hierarchical status structure (Gould, 2002) and that humans are able to rapidly attribute information to others related to status (Moors & Houwer 2005). In neuroscience, they find that the recognition of ranking within the mind occurs within two-tenths of a second (Chiao et al., 2008). As such, status is best thought of as taken-for-granted shared expectations and norms which groups utilize to interact efficiently.

Status beliefs form around a social difference, like age or gender, and become associated with understandings of group competence and social esteem (Berger & Webster, 2006). Past research has found that status beliefs related to a social difference can form relatively easily within a particular group and can spread rapidly across society (Ridgeway & Balkwell, 1997; Ridgeway & Erickson, 2000; Ridgeway et al., 2009). All task-focused groups are argued to have status beliefs attached to them. Unlike in-group favoritism, status beliefs are essentially consensual (Ridgeway et al., 2009). They are accepted as fact of social reality by both the advantaged and disadvantaged groups (Brewer & Brown, 1998). As Ridgeway (2009, p. 46) describes:

"The formation of this [status] hierarchy creates a shared reality for the participants in which a person from one category, say an A, is more active, influential, and apparently more competent, while the other person, a B, is cast into the role of reacting to the A. The

13

hierarchy develops implicitly through many small behaviors so its origins are obscure for the participants while the social difference is salient."

When a status characteristic exists, individuals will treat others in line with the established status beliefs in future interactions when it becomes salient. As such, status beliefs and performance expectations can best be understood as rules of conduct that are maintained by interactants in order to ensure a smooth flow within interaction. Interactants that hold a salient advantaged status characteristic will generally be treated as more competent and valuable by a task group. These shared understandings of a situation constrain the performance of interactants. As Schwalbe & Shay (2014, p. 173) state:

"[T]he cognitive biases documented by expectation-states research are consequences of how bodies are read as signs of character, and how the body, as a peremptory signifier, affects the way other expressive behaviors are interpreted. Diffuse status characteristics, like gender, are attached to the body of each actor and read as signs of the roles played within a performance."

In other words, status characteristics fundamentally shape group interactions in ways that interactants are seldom consciously unaware. Nonetheless, past research has found though that the disadvantages of status beliefs can be altered by presenting group members with new information that conflicts with pre-existing cultural beliefs about diffuse status characteristics. These interventions result in group structures that increase contributions and influence from traditionally lower status actors (Ridgeway & Erickson, 2000). For example, Pugh & Wahrman (1983, p. 760) found that "in the absence of some form of intervention, females in mixed-sex groups will defer to the judgment of men and men will refuse to be influenced by the judgment of women." In other words, only when they produced an inconsistent status structure were the

disadvantaging effects of gender expectations erased. Additionally, individuals that took part in a status intervention have been found to effectively "teach" others their beliefs by the way they define future situations (Ridgeway et al., 2009; Ridgeway & Erickson, 2000; Markovsky et al., 1984). Therefore, status interventions that provide group members with status-inconsistent information about their interaction partners have been found to greatly mitigate the disadvantaging effects of status and reduce inequality of influence between task partners within mixed-status groups (Markovsky, Smith, & Berger, 1984; Dippong, 2015). Following past research on status differences, I offer two hypotheses:

H1: In status-consistent groups, lower-status actors will be significantly more open to influence in comparison to their higher-status partners.

H2: In status-inconsistent groups, lower-status actors will not be significantly different in their openness to influence in comparison to their higher-status partners.

Although the introduction of inconsistent status information has been demonstrably effective at reducing inequality within small groups (Walker, 2019), the approach may still have unintended consequences like reducing cohesion or solidarity. For instance, Houser and Lovaglia (2002) argue that when groups are provided with new information that is congruent with established expectations, it promotes group solidarity, but when such information is incongruent with expectations, it weakens solidarity. Turner (2002) argues that when expectations are violated, it creates uncertainty and reduces predictability which, in turn, weakens solidarity. Nonetheless, as Markovsky and Lawler (1994, p. 10) state, "despite the evident interest and obvious centrality of the solidarity concept to sociologists, the amount of research is vanishingly small." While there has been some research on solidarity over the past thirty years, there remain considerable ambiguities around how cohesion and solidarity operate within groups (Thome,

1999; Friedkin, 2004; Salmela, 2014). For instance, while RCT researchers have emphasized an emotion-based mechanism to generate cohesion and solidarity, others have stressed more rationality-based mechanisms like adopting patterns and norms related to prosocial behavior (Hechter, 1990; Lindenberg, 2014).

As mentioned earlier, cohesion is associated with solidarity, but they are conceptually distinct. Cohesion is the degree that individuals are attracted to a group and "refers to the strength and directness of relations among members of a set of actors" (Markovsky & Lawler, 1994, p. 121). The greater the cohesion, the more satisfaction and attractiveness towards a group that individuals tend to report (Friedkin, 2002). In contrast, solidarity refers to an "unity of structure" and emerges from high levels of cohesion between interactants. Solidarity implies a structural form with an accompanying *sui-generis* social entity constituted in a cognitive-affective nexus (Fararo & Doreian, 1998). When an individual senses that their emotions resonate with another actor, it is argued to lead to a partial unity of consciousness that generates a sense of "we" (Heise, 1998; Gurvitch, 1941). The heightened mutual focus strengthens the shared mood that serves to lock interactants into a temporal rhythm that builds in intensity until satiation. The greater the synchronization in a group, the stronger the relational tie is argued to exist between them (Collins, 2004; Markovsky, 1998).

As shown in Figure 1, I argue that cohesion and solidarity effectively work in a feedback loop where cohesion initially produces solidarity but then solidarity in turn influences cohesion. Therefore, we would expect factors that reduce cohesion should also reduce group solidarity. In turn, reductions in solidarity should be associated with lower levels of group identification as well as fewer positive feelings toward fellow group members and less interest in remaining a part of the group. Following Lawler (2001), emotions are conceived as transitory negative or positive

evaluative states that become attributed to social units. Emotions have a positive relationship with cohesion that has a positive relationship with group solidarity. Solidarity, then, feeds back with a positive relationship on emotion.

Figure 1. Theoretical Relationship between Cohesion and Solidarity.

Houser & Lovaglia's (2002) and Turner's (2002) arguments, then, suggest the possibility that by creating inconsistent status structures, typical status interventions may weaken cohesion and solidarity, thereby reducing compliance, satisfaction, and efficiency. When behavioral expectations are challenged or when group members fail to adhere to behavioral norms, it may weaken solidarity but not destroy the status structure totally. As Markovsky & Lawler (1994, p. 22) describe: "In groups with different types of relational ties- "impure" groups, so to speak- we would expect that factors that serve to weaken ties of a certain type do not necessarily weaken ties of other types. Such selective-tie weakening may shift a set of actors from a state of solidarity to something stronger than an assemblage- from solid to "slushy" rather than liquid." Nonetheless, in a recent test on the relationship between status consistency and cohesion, Vincent (2015) did not find any relationship but attributed the null results to experimental design issues. Therefore, I expect that cohesion and solidarity will be higher when the distribution of status characteristics in a group is consistent, and conversely, that inconsistent status structures decrease the degree of cohesion and solidarity. Regarding cohesion and solidarity, I offer one hypothesis for each, respectively:

H3: Individuals in status-inconsistent structures will exhibit less cohesion compared to individuals in status-consistent structures.

H4: Groups with status-inconsistent structures will exhibit less solidarity compared to groups with status-consistent structures.

CHAPTER 4: VOCAL SYNCHRONY AND VOCAL ACCOMODATION

In terms of empirically measuring these theoretical constructs, vocal frequencies have repeatedly been argued to be unobtrusive indicators of *both* status and solidarity (Gregory, 1983; Gregory, 1994; Dippong & Kalkhoff, 2018; Dippong, Kalkhoff, & Jamil 2022). Communications scholars have long argued that individuals' behaviors tend to synchronize with each other over the course of interaction, including even those of newborns with their caretakers, in all kinds of ways- from physical gestures to ways of speaking to even brainwaves, among a wide variety of other non-conscious behaviors (Condon and Sander, 1974, Giles & Coupland, 1991, Kalkhoff et al., 2011). Relatedly, researchers have found interactants "sync up" within the lowest frequencies in the voice (< 500 Hz), known as the paraverbal range, over the course of conversation. Measures of this behavior have been used to assess the degree of group solidarity exhibited. Even more, researchers have observed that differences in social status between group members affect the synchronization process. That is, as group members' vocal frequencies converge, they contribute unequally to the process. So, although group members' vocal frequencies converge, this occurs primarily through the efforts of lower-status actors, who move toward their higher-status partners—that is, they accommodate higher-status actors (Dippong, 2020).

In order to successfully maintain any social interaction, individuals relay information to each other through conscious and unconscious processes in the body (Goffman, 1967). Most notably, there is considerable evidence in support of shared micro-rhythms as being integral to social interaction (Condon & Sanders, 1974a; Zerubavel, 1981; Gregory, 1983; Sadler et al., 2009; Marsh et al., 2009). The rhythmic "syncing up" of individuals appears to be one of the necessities needed in order to ensure the smooth flow of everyday interaction (Collins, 2004). "Being "in sync" with one another is at the basis of some of the most simple social

activities, from dancing and sexually climaxing together to participating in religious rituals, as well of the "mutual tuning-in relationship," which according to Alfred Schutz, is the very essence of musical performance (Zerubavel, 1981, p. 65)." Being "in sync" allows group members to effectively coordinate their behavior between them.

Frame by frame analyses of motion in interaction have repeatedly found a "precise 'dancelike' sharing of micro-body motion patterns of change between speaker and listener (Condon & Sander, 1974a, p. 459)." Interactional synchrony has been found in a wide range of human interaction, including from diverse cultures (Condon, 1968) and in large group interaction (Condon & Sander, 1974a). Unsurprisingly then, "syncing up" appears to be something innate within humans. For example, Condon & Sanders (1974b) analyzed interactions between new-born babies and parents and found that, as early as the first day of life, babies synchronized with their caretaker's voices. Behavioral synchrony appears to occur prior to any intense socialization. Within speech, synchronization has been found to occur through conversation features like dialects used, rates of speech, volume, tone, tempo, pitch, and other subtle mechanisms (Gregory & Hoyt, 1982; Coupland et al., 1988).

The more predictable an interaction is for interactants, the greater the likelihood for them to be able to sustain the rhythmic flow that is thought to produce group solidarity. In other words, the more individuals are able to "sync up", the greater the solidarity that is argued to be present. For example, Turner (2002, pp. 130-131) states that: "Humans have a need to sense that the actions of others are predictable, that others are in rhythmic synchronization…. Predictability and rhythmic synchronization are the most important needs, because they exist at relatively high levels of activation in all situations." Being able to predict the flow of interaction allows for trust to be built between interactants and trust has long been argued to be an important determinant of group

solidarity (Baum, 1975; Skovertz, 1998; Thome, 1999; Lindenberg, 2000; Bruder, Fischer, & Manstead, 2014).

Sociological research on vocal convergence and accommodation emerged and developed in the 1980s as a nonconscious indicator of solidarity in small groups. Initially, Gregory (1983) analyzed vocal frequency bands from dyadic interviews and found that interactants "sync up" over time within the paraverbal frequencies, a process that occurs outside of conscious awareness or control (Gregory et al., 2009). Gregory and colleagues (2009) argue that vocal synchrony reflects a form of solidarity in action since interactants become more similar over time. By assessing the degree to that group members' paraverbal vocal frequencies converge over time, we can model solidarity as it emerges (Kalkhoff et al., 2020).

Building on early research on vocal synchrony, Gregory (1994) observed that differences in social status between group members affect the synchronization process. That is, as group members' vocal frequencies converge, they contribute unequally to the process. A "social power relationship" is displayed where the lower-status actor "puts in more work" towards convergence (Gregory, 1994). Higher-status actors demonstrate substantial stability within the paraverbal band. As higher-status actors essentially "sets the pace," the lower-status actors comply (Gregory, Webster, & Huang, 1993). Stated differently, although group members' frequencies converge, this occurs largely through the efforts of lower-status actors, who move toward their higher-status partners—that is, they *accommodate* higher-status actors.

Over the past twenty years, considerable evidence supports the use of vocal accommodation as a measure of status. For example, Gregory & Webster (1996) analyzed interviews between Larry King and a wide variety of celebrity guests and found that Larry King tended to vocally accommodate his interview partner when they were higher-status, while lower-

status guests tended to vocally accommodate Larry King. Gregory & Gallagher (2002) found that vocal accommodation successfully predicted viewers perceptions of who "won" the debates in six of eight presidential elections and predicted the popular vote in all eight elections. Similarly, Kalkhoff & Gregory (2008) found that the degree of vocal accommodation between presidential candidates during debate were associated with viewers' perceptions of who won the debate. Within expectation states research itself, vocal accommodation has also been used successfully to predict status relations. Gallagher et al. (2005) found an asymmetry in convergence between speakers when a task-specific status characteristic was salient (the interviewer's expertise), but the asymmetry was absent in segments of conversation unrelated to the interviewer's expertise.

In a related line of research, Kalkhoff, Thye, and Gregory (2017) found that vocal accommodation predicts perceptions of group members' dominance for those *observing* a group, and Dippong et al (2022) report that vocal accommodation successfully predicts perceptions of both dominance and prestige *between* group members. Relatedly, Moore, Dippong, & Rejtig (2019) examined the different paraverbal vocal "strategies" that group leaders employ when the distribution of status characteristics are consistent or inconsistent and found that female leaders appeared to adopt a strategy of dominance while male leaders utilized a strategy based on prestige. After again confirming the link between vocal accommodation and status, Dippong (2020) argues that, while underused, vocal accommodation reliably measures the internal status dynamics within a group. Following this research, I offer two hypotheses:

H5: In status-consistent groups, lower-status actors will exhibit significantly greater behavioral accommodation, in comparison to the status inconsistent group.

H6: In status-inconsistent groups, lower-status actors will not exhibit significant differences in behavioral accommodation in comparison to their higher-status partners.

Vocal analysis allows researchers to go beyond individual reflections and self-reports to create a continuous, empirical measure based on enacted behavior. By analyzing group vocal synchrony and individual vocal accommodation, it allows researchers to model both solidarity and status over the course of social interaction (Dippong & Kalkhoff, 2018). For example, Lawler, Thye, & Yoon (2014, p. 98) state that "conditions of power dependence (i.e., high mutual dependence, equal relative dependence), network properties (i.e., structural cohesion), and those suggested by the affect theory (i.e., high task jointness) may in fact be the structural and theoretical properties of the interaction that promote synchronization." Vocal analysis provides an unobtrusive means to model status processes and their effects on solidarity in the course of interaction. Therefore, while past theorists have highlighted the potential of vocal analysis for analyzing group process, the empirical work is still limited.

Vocal Measures of Solidarity and Status

Modeling rhythmic synchronization within the vocal behaviors between interactants involves tracking distances between amplitudes within the paraverbal range. To achieve this, researchers typically divide the entire duration of speech into three equal segments that correspond with the beginning, middle, and end of interaction. Then, using spectral analysis software, Fast Fourier Transform algorithms (FFT) transform the recorded audio into quantitative measures. FFT separates the complex waveform of the voice into its component frequencies, analogous to a light passing through a prism and being separated into separate-colored wavelengths (Gregory, 1986). FFT summarizes an audio signal by plotting the acoustic frequencies for a particular sound on an x-axis against the mean amplitude of the frequency on the y-axis (Gregory & Kalkhoff, 2007).

Whereas early research on vocal dynamics and solidarity examined bivariate correlations between group members' paraverbal frequencies to assess the "vocal fingerprint" of an interaction, recent work (Kalkhoff et al., 2020) demonstrates that we can model the degree of solidarity within a group by measuring the average absolute distance (AAD) between speakers' vocal amplitudes at each frequency. When average differences are small between interactants, this indicates a higher degree of solidarity; when distances are large, it can be seen as evidence that these factors are lacking.

To measure who contributes more to the synchronization process, the most common measure of vocal accommodation, known as Acoustic Analysis Result (AAR), relies on similar analytical processes as those related to measuring solidarity. After conducting FFT analysis, however, an additional step is necessary to assess the degree of variability and stability in actors' paraverbal frequencies. This involves conducting a principal components analysis on the FFT values for all group members. Principle components analysis reliably yields a two-factor solution, with the first factor capturing vocal stability (Dippong & Kalkhoff, 2018). Higher AAR scores reflect greater vocal stability. The logic in using stability to measure accommodation is that greater frequency variability reflects the movement associated with convergence (though it is also necessary to assess the direction of movement). Accordingly, higher-status actors produce significantly higher AAR values.
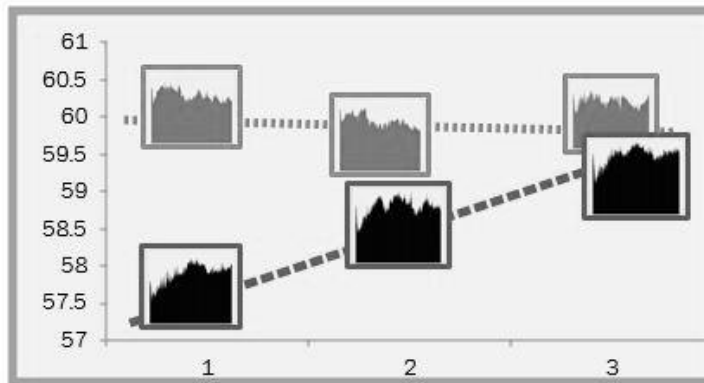
Figure 2. Example of FFT Plots across Three Temporal Segments with Trend Line Displaying the Overall Movement.

Figure 2 provides a visual depiction of how FFT plots are converted into AAD and AAR values. AAD is measured by the degree that the actors' vocally converged over the conversation and, as a consequence, each dyad has one AAD score. The more they converge, the more solidarity is argued to be present within an interaction. In contrast, AAR is based on relative vocal stability of each actor across the interaction and, therefore, each dyad was two AAR scores. The actor who is more stable has been found to be the higher-status actor (Dippong & Kalkhoff, 2018). For example, in Figure 2, the partner with the greater vocal stability will have the higher AAR score while the overall degree that the two converge over the course of conversation will be the AAD score. Together, AAR and AAD are ideal measures for examining the relationship between status consistency and solidarity. Using established questionnaire methods, I can assess how vocal measures of solidarity are related to participants' self-reported feelings of cohesion. The behavioral measure will also be cross validated using more traditional measures of openness to influence.

CHAPTER 5: METHOD

To examine the relationship between status consistency, cohesion, and solidarity, I employ an informational intervention in mixed-gender dyadic task groups to activate expectations that are either consistent with or inconsistent with cultural status beliefs related to gender. Substantial research on social inequality has documented the power of gender as a status characteristic that influences how group members work together, with women being socially disadvantaged by cultural status beliefs in comparison to men (Wagner & Berger, 1997; Rashotte & Webster, 2005; Foschi, 2009; Walker, 2019). I argue that introducing a status element that is consistent with cultural expectations about gender and competence (i.e., that is consistent with expectations for greater competence for male group members) will increase the degree of solidarity exhibited between group members. In contrast, introducing a status element that is inconsistent with expectations based on gender as a diffuse characteristic (i.e., females having greater ability), will decrease the degree of solidarity exhibited between interactants. From a vocal synchrony perspective, increased feelings of solidarity will manifest itself by paraverbal vocal frequencies becoming more similar over the course of a conversation.

To test these predictions, I designed a 3-condition experiment in which participants interacted with another participant differing in one salient diffuse status characteristic, namely gender. In the baseline condition, mixed-gender dyads first independently completed ambiguous problem-solving questions without receiving any feedback. Next, they individually completed a problem-solving scenario. Finally, they were paired up with the other participant over audio to come to a consensus in their rankings and the audio was recorded. After the participants came to a consensus, they then independently completed a series of survey questions about their interaction. In the other two conditions, the same procedure was followed except for the sole

difference being that the participants were given fictitious feedback about their problem-solving abilities from the independently completed ambiguous problem-solving questionnaire. In the second condition, group members were told that the participant with the advantaged state of the diffuse status characteristic (male participants) had higher pre-test scores in comparison to the participant with the disadvantaged state (female participants). In the third condition, the feedback was reversed with the female participant being advantaged over the male participant. (For more information on the experimental procedure and protocol, see Appendix A).

Relatedly, influence over group decisions, which I discuss more in-depth below, provides another behavioral measure for status. The survey questionnaire provided a composite variable as a self-reported measure for relational cohesion. In terms of examining the contrast between conditions, I utilized two-tailed t-tests as well as generalized estimating equations (GEE). GEE is ideal because it estimates unmeasured correlations across repeated observations of a particular outcome. GEE modeling assesses the overall goodness of fit as well as contrast differences between conditions (Zeger & Liang, 1986).

Variables

The study involves three key independent variables: *i*) group members' relative status position based on gender as a naturally occurring covariate; *ii*) group members' relative standing on a manipulated specific status characteristic; and *iii*) the consistency or inconsistency of the status structure involving two status characteristics. Additionally, the proposed study involves four dependent variables: *i*) the degree of paraverbal vocal accommodation (AAR) between group members; *ii*) group members' openness to influence from their task partner; *iii*) the degree of vocal synchrony (AAD) in the group; *iv*) an index of self-reported cohesion.

Vocal Accommodation. To derive vocal measures of status, I digitally recorded group conversations during the collective decision-making task. AAR uses FFT and principle components analysis in order to capture the degree of relative stability or variability in group members' paraverbal signal across the duration of an interaction (see Kalkhoff et al., 2017, online supplement for complete procedures for calculating AAR). A higher AAR value is associated with higher status.

Openness to Influence. The group decision-making task provides data on influence between group members. Recall that in completing the task, group members will privately record an initial ranking and then work together to complete a group ranking. I measure influence by comparing pre- and post-discussion rankings. Cheng and colleagues (2013) employ a conceptually identical task to measure influence and provide a formula for translating rankings into influence scores. This procedure involves summing the absolute differences between an actor's private initial rankings and the final group rankings. The larger the distance between pre- and post-discussion rankings, the more a group member was influenced by the other.

Vocal Synchrony. To assess solidarity, I utilize average absolute difference scores. To calculate AAD, I employ FFT values for both group members using three temporal segments, subtracting the male group member's FFT values across all frequencies in the paraverbal band from the female group member's values (the score is unaffected by whichever actors' score is subtracted, and as such the decision is arbitrary). By analyzing temporal changes in synchrony across the course of the conversation instead of just the beginning and end, it allows for a more dynamic measure of solidarity to be captured. Following Kalkhoff et al. (2020), I take the absolute value of the differences in FFT and average the scores across all three segments.

Cohesion. To measure cohesion, I employ a version of Lawler & Yoon's (1996) four-item index of relational cohesion, slightly modified to reflect the appropriate interactional context. The relational cohesion index asks participants to rate their relationship with a task partner using four sets of bipolar adjectives, including close/ distant, cooperative/ conflictual, cohesive/ divisive, and converging/ diverging. Measuring participants' perceptions on a nine-point Likert-type scale, I average responses across the four items to create a cohesion score.

Controls. In addition to the key independent variables above, I also included control variables related to the participant's race, age, race, speaking time, vocal pitch, and expectations. The variable Pitch measured the highest captured frequency over the conversation by each participant, which past literature has found to be an important control variable for vocal measures (Dippong, 2020). The variable Expectation was a composite variable based on a survey questionnaire on the average of their self-ranking as well as their partner's ranking of them.

Experimental Procedure

The experiment consisted of three phases: a status manipulation phase, a collective decision-making phase, and a questionnaire phase. When participants arrived in the Zoom call, I electronically provided them with a consent form and a numeric identifier for confidentiality purposes. All groups consisted of two participants, one male and one female, randomly assigned to one of three conditions. Following previous research, I manipulated specific status differences using contrived feedback regarding performance on a pair of fictitious ability pre-tests for both of the treatment conditions.

During phase one, I informed participants that they are being tested individually to assess their baseline level on an ability known as "Intuitive Problem-Solving Ability". Initially,

participants individually completed two diagnostic tasks that they were informed had previously

been demonstrated to be highly related to Intuitive Problem-Solving Ability. Participants then

completed the "contrast sensitivity" and "meaning insight" tests that require participants to solve

a highly ambiguous binary-choice problem. Because the tests have no correct answers, they are

useful for manipulating performance-related feedback (see Appendix A for more information on

the protocol). Table 1 outlines the three conditions of the experiment. In condition 1 (baseline),

participants completed the ability tests but received no feedback on their performance. In

condition 2 (consistent status), participants learned that the male participant performed in the

"superior" range on both tests, while the female participant performed in the "average" range. In

condition 3 (inconsistent status), participants learned that the female participant scored in the

"superior" range, while the male participant scored in the "average" range. Table 1 presents the

feedback for the participants by condition.

Table 1: Conditions for Experiment

Conditions	Male Participant	Female Participant
1) Baseline	No Feedback	No Feedback
2) Status-Consistent	Superior	Average
3) Status-Inconsistent	Average	Superior

In the next phase, participants worked together to complete a decision-making task that

was claimed to also be a measure for Intuitive Problem-Solving ability. Firstly, the participants

were each instructed to complete the "Lifeboat Test" individually. In the lifeboat test,

participants are presented with a fictional scenario in which a ship is sinking in the Caribbean

Sea with 12 people aboard. Based on the descriptions of the people on the ship, group members

are asked to rank people in terms of the order in that they should be allowed onto a lifeboat. This

task is conceptually similar to other group rank-ordering tasks that have been used in previous

research in that the answers are highly ambiguous (Tammivaara, 1982). After they each privately

recorded their individual rankings, only then did they work together over Zoom audio to compile a group ranking (see Appendix B for more information on the group task). The participants were instructed to come to a consensus on their ratings and the conversations were recorded.

Once they finished the collective decision-making task, the recording was stopped, and the participants individually completed a computer-based questionnaire. The questionnaire included Cheng and colleagues (2013) indexes of dominance and prestige that also included an index for influence and expectations. The variable Expectation is an average based on an individual's self-reported anticipation and their partner's reported anticipations about them (Zeller & Warnecke, 1973). The questionnaire also contained a four-item index assessing perceptions of group cohesion and commitment (Lawler & Yoon, 1996). The questionnaire contained a six-item index to determine satisfaction with group decisions, as well as manipulation check items (see Appendix C for more information on the post study questionnaire).

CHAPTER 6: RESULTS

Data Collection

While I initially planned to collect all data in the Group Processes Laboratory at UNC Charlotte, Covid-19 forced me to collect all data virtually. Initially, participants were recruited through the university. Due to low turnout based on recruiting difficulties related to the Covid-19 pandemic, the rest of the sessions were recruited through the online service findparticipants.com. Although not shown here, I conducted a comparison of the differences in samples between the University participants and the participants recruited online. The only difference between the samples was that the online sample was significantly older in comparison to the University sample, with 23.4 being the average age (and 22 being the median) in the University sample and 27.7 being the average age (and 24.5 being the median) being in the online sample.

I collected data from 90 groups in total with 180 participants, I omitted 9 groups, which was 10 percent of the participant pool. I excluded groups where at least one participant self-reported low task-focus or low collective-orientation. In the average SCT experiment, around 15 percent of participants are excluded for not meeting the scope conditions (Dippong, 2012). After exclusions, 42 participants (21 sessions) were recruited through the University and 120 (60 sessions) were recruited online.

Demographics

Table 2 presents the descriptive statistics for the participants involved in the experiment. The racial composition of the sample is 26.5 percent White, 34.6 percent Black, 4.9 percent Hispanic, 31.5 percent Asian, and 2.5 percent Other. Following SCT research, I account for the effects of race as a status characteristic. The variable "Different Races" is an inverse weighted

variable where 0 was coded if the dyads were of a similar racial background (namely if they were both white or both non-white). When the participants in a dyad reported different racial backgrounds, the White participant was coded 1 and the non-White participant was coded -1. Across conditions, 35.8 percent of sessions included participants who reported different racial backgrounds. The age of the participants in the sample ranged from 18 to 62 with a mean of 26.6 years old and a median of 24.

The acoustic analysis result (AAR) variable is the vocal measure for status that has a mean of .556 and ranges from -.23 to .97. Relatedly, the average absolute distance (AAD) variable is the vocal measure for solidarity, which has a mean of 5.39 and ranges from 2.08 to 9.62. The variable proportion of influence measures how much a participant changed their answers in comparison to their partner when working together on the collective decision-making task. It ranges from 4.8 percent to 95.2 percent.

The variable Cohesion is coded as 1 being weak and 9 being strong, with a mean of 3.14. Following previous work (e.g., Dippong, Kalkhoff, & Jamil, 2022), the regression models control for speaking time, which is measured in seconds, with a mean of 250 seconds, a little over 4 minutes. Speaking time ranged from just 33 seconds to 638 seconds (10 minutes and 38 seconds). As mentioned, the variable Pitch measures the highest captured frequency over the conversation by each participant. This measure ranged from 17.44 to 452.70 with an average peak frequency of 231.7.

The variables Prestige, Dominance, Influence, and Expectation are composite variables based on the average of their self-ranking as well as their partner's ranking of them, which are all listed below. For Prestige, Dominance, and Influence, 1 is coded weak and 7 is coded strong while for Expectations, 1 is coded as weak and 9 is coded as strong. Lastly, the variable average

correlation (R_Average) is an alternative vocal measure that, like AAD, examines vocal synchrony between participants within the paraverbal band over the course of a conversation. R_Average ranged from 0 to .86 with a mean of .35.

Table 2: Descriptive Statistics of All Measures.

Variable	Obs	Mean	Std. dev.	Min	Max
AAR (status)	162	0.556	0.372	-0.230	0.969
AAD (solidarity)	162	5.396	1.533	2.081	9.617
Different Races	162	0	0.599	-1	1
Age	162	26.568	8.611	18	62
Proportion of Influence	162	0.5	0.2	0.048	0.952
Cohesion	162	3.136	1.546	1	7.571
Speaking Time	162	250.241	129.018	33	638
Pitch	162	231.704	76.531	17.442	452.698
R_Average	162	0.353	0.230	0	0.864
Prestige – Self	162	5.253	1.106	1.25	7
Prestige - Partner	162	5.611	0.934	3.125	7
Prestige	162	5.432	0.845	3.188	7
Dominance - Self	162	2.946	1.451	1	7
Dominance - Partner	162	3.142	1.182	1	6.71
Dominance	162	3.044	1.082	1.071	6.357
Influence – Self	162	5.181	1.052	1.333	7
Influence - Partner	162	5.479	0.959	3	7

Influence	162	5.330	0.786	3.167	7
Expectations - Self	162	7.126	1.310	3.333	9
Expectations - Partner	162	7.344	1.257	3.667	9
Expectations	162	7.235	1.102	4.333	9

Table 3 presents the results of the Cronbach's Alpha test for the subscales for self and

partner's rankings of Prestige, Dominance, Influence, Expectation, and Cohesion. All of the

subscales had an alpha above .7 which suggests they have an acceptable internal consistency.

Dominance was the most internally consistent with an alpha just above .8.

**Table 3: Cronbach's Alphas for Subscales of Self and Partner Rankings of Prestige,
Dominance, Influence, Expectation, and Cohesion.**

Subscales	N	Items	Cronbach's *a*
Prestige- Self	162	12	0.775
Prestige- Partner	162	12	0.755
Dominance- Self	162	10	0.819
Dominance- Partner	162	10	0.810
Influence- Self	162	3	0.785
Influence- Partner	162	3	0.793
Expectation- Self	162	3	0.767
Expectation- Partner	162	3	0.775
Cohesion	162	7	0.777

Before presenting the results of the *t* -tests and regressions, Table 4 serves as a reminder

of the hypothesized relationships by condition. Across status, cohesion, and solidarity measures,

the baseline and consistent status conditions are expected to produce the same results.

Conversely, the inconsistent status condition is expected to produce the reverse for each measure

in comparison to the baseline and consistent status conditions.

Table 4: Hypothesized Predictions by Status, Cohesion, and Solidarity

Measures of Status:		
Condition	**Openness to Influence**	**Vocal Accommodation**
Baseline	M > F	M > F
Consistent	M>F	M>F
Inconsistent	M = F	M = F
Measures of Cohesion and Solidarity:		
Condition	**Self-Reported Cohesion**	**Vocal Synchrony**
Consistent	=Baseline	=Baseline
Inconsistent	<Baseline	<Baseline

Table 5 presents the bivariate correlations for all pairs of variables in the study. I have bolded all correlations that are above r=.25. AAD, the measure for vocal synchrony, correlated with the variable average correlation (R_Average), another measure for vocal synchrony, as well as speaking time, at roughly r= -.35. AAR, the measure for vocal accommodation, correlated with being male at r= .29. The survey-based variables like prestige, dominance, influence, expectation, and cohesion all generally correlated strongly between each other. For example, prestige correlated at r= .82 with influence, r= .76 with expectation, and r= .38 with cohesion. Dominance correlated with cohesion at r= -.42. Influence and expectation correlated at r= .67. Influence and cohesion correlated at r= .30 Expectation and cohesion correlated at r= .42. To minimize issues of collinearity in the analyses, I only utilized the survey-based variables Expectation and Cohesion in the primary analyses. In the supplemental analyses, I also investigate Prestige, Dominance, and Influence.

Table 5: Bivariate Correlations of All Measures Utilized in the Analysis.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
AAR (a)	1													
AAD (b)	-0.06	1												
R_Average (c)	0.19	**-0.35**	1											
Speaking Time (d)	0.11	**-0.36**	0.19	1										
Male (e)	**0.29**	0.00	0	-0.07	1									
Age (f)	0.07	-0.12	-0.12	0.09	-0.10	1								
Proportion of Influence (g)	0.16	0.00	0	0.15	0.08	-0.03	1							
Pitch (h)	-0.19	-0.14	0.13	0.12	-0.14	0.04	0.04	1						
Prestige (i)	0.04	0.01	0.01	-0.08	-0.06	0.13	-0.08	0.13	1					
Dominance (j)	-0.11	0.17	-0.08	-0.24	0.04	-0.10	-0.21	0.06	-0.02	1				
Influence (k)	0.10	0.03	-0.03	-0.01	-0.04	0.06	-0.02	0.12	**0.82**	0.02	1			
Expectation (l)	0.02	0.01	-0.01	-0.04	-0.14	0.16	-0.07	0.08	**0.76**	-0.12	**0.67**	1		
Cohesion (m)	0.03	-0.04	0.06	0.12	-0.11	0.08	0.15	-0.01	**0.38**	**-0.42**	**0.30**	**0.42**	1	
Different Race (n)	-0.04	0.03	-0.02	0.01	-0.00	0.08	0.00	-0.07	-0.07	-0.08	-0.10	-0.10	-0.01	1

Hypothesis Tests

First, to assess whether there was a significant effect across conditions, I ran linear mixed models for each dependent variable. Table 6 presents the results of the linear mixed models on the acoustic analysis result (AAR). Being male, in comparison female, appeared to have a highly significant relationship on AAR that held even when controls were added. Additionally, the control variable pitch appeared to have a significant negative relationship on AAR.

Table 6: Linear Mixed Model Results on *Acoustic Analysis Result* **(***AAR)* **(***N=***162).**

DV = AAR	By Gender		With Controls	
Male	0.216	***	0.207	***
	(0.056)		(0.056)	
Speaking Time			0.000	
			(0.000)	
Age			0.004	
			(0.003)	
Pitch			-0.001	*
			(0.000)	
Diff Race			-0.023	
			(0.047)	
Constant	0.448	***	0.440	***
	(0.394)		(0.132)	

Table 7 presents the results of the linear mixed models on the dependent variable proportion of influence across conditions. AAR appeared to have a significant positive relationship on proportion of influence that held when controls were added. None of the control variables appeared to have a significant relationship with proportion of influence. Relatedly, although not shown here, the linear mixed models on the dependent variables absolute average distance (AAD) and self-reported relative cohesion did not appear to have any significant relationships across conditions.

Table 7: Linear Mixed Model Results on *Proportion of Influence* across (*N*=162).

DV = Proportion of Influence	By AAR		With Controls	
AAR	0.085	*	0.085	*
	(0.042)		(0.043)	
Speaking Time			0.000	
			(0.000)	
Age			-0.000	
			(0.002)	
Pitch			0.000	
			(0.000)	
Diff Race			-0.001	
			(0.026)	
Constant	0.453	***	0.405	***
	(0.028)		(0.075)	

Table 8 presents the results of the paired-samples two-tailed t-tests on proportion of influence, a measure for status. Only the consistent status structure found a significant difference, with men being significantly more likely to influence decision-making in comparison to women. Both the baseline condition and the status inconsistent condition did not have a significant difference in terms of proportion of influence. Therefore, the first hypotheses received partial support. Lower-status actors were more open to influence *only* in the condition which provided congruent status information. The second hypothesis predicting status-inconsistent groups will not be significantly different in openness to influence receives support. Like the baseline condition, providing incongruent status information to interactants served to maintain no significant difference in terms of proportion of influence.

Table 8: Paired Samples *t*-tests Comparing *Proportion of Influence* by Condition.

Proportion of Influence	Mean	Std. Dev.	*t*	df	Sig (2-tail)	
Condition 1 (Baseline- male)	0.502	0.202	0.091	52	0.464	
Condition 1 (Baseline- female)	0.498	0.202				
Condition 2 (Consistent- male)	0.584	0.172	3.683	54	0.001	**
Condition 2 (Consistent- female)	0.416	0.172				
Condition 3 (Inconsistent- male)	0.456	0.211	-1.514	50	0.136	
Condition 3 (Inconsistent- female)	0.544	0.211				

Table 9 presents the results of the paired-samples two-tailed t-tests on the dependent variable acoustic analysis result (AAR), the vocal measure related to status. In the baseline and the consistent status structure, males had significantly higher AAR scores in comparison to females. Only in the inconsistent status structure did status differences neutralize in significance within the dyads. However, it is worth approaching this with some caution since the comparison of means just barely falls outside of being significant at a p-value of .051. Additionally, while the mean AAR scores of men stayed relatively similar across conditions, the mean AAR scores of men are highest in the inconsistent status structure, which could arguably be interpreted as a display of dominance. Based on these results, the fifth and sixth hypothesis receive support. Lower-status actors accommodated their higher-status partners unless they were presented with incongruent status information.

Table 9: Paired-Samples *t*-tests Comparing *Acoustic Analysis Result (AAR)* by Condition.

AAR (status)	Mean	Std. Dev.	t	df	Sig (2-tail)	
Condition 1 (Baseline- male)	0.67	0.333	2.559	52	0.014	*
Condition 1 (Baseline- female)	0.429	0.361				
Condition 2 (Consistent- male)	0.65	0.382	2.063	54	0.044	*
Condition 2 (Consistent- female)	0.44	0.379				
Condition 3 (Inconsistent- male)	0.673	0.351	1.997	50	0.051	
Condition 3 (Inconsistent- female)	0.477	0.356				

Table 10 presents the results of the paired-samples two-tailed *t*-tests within groups for self-reported cohesion. In the inconsistent status condition, cohesion approaches a significant difference with females reporting higher levels of cohesion in comparison to males. Nonetheless, like Vincent (2015) found, there appeared to be no significant relationship between status consistency with cohesion. Therefore, based on t-tests alone, my third hypothesis on the relationship between status consistency and cohesion does not receive support.

Table 11 presents the results of the paired samples two-tailed *t*-tests on self-reported relative cohesion between conditions. Similar to Table 10, there were no significant differences between conditions, which again gives support for Vincent's (2015) null findings related to status consistency and cohesion.

Table 10: Paired Samples *t*-tests on Self-Reported *Relative Cohesion* by Condition.

Cohesion	Mean	Std. Dev.	t	df	Sig (2-tail)	
Condition 1 (Baseline- male)	6.646	1.462	-1.005	52	0.319	
Condition 1 (Baseline- female)	7.069	1.629				
Condition 2 (Consistent- male)	6.975	1.295	0.583	54	0.563	
Condition 2 (Consistent- female)	6.75	1.574				
Condition 3 (Inconsistent- male)	6.445	1.987	-1.878	50	0.066	
Condition 3 (Inconsistent- female)	7.302	1.212				

Table 11: Paired Samples *t*-tests on Self-Reported *Relative Cohesion* between Conditions.

Cohesion	Mean	Std. Dev.	t	df	Sig (2-tail)	
Condition 1X2 (Baseline)	6.857	1.548	-0.018	108	0.986	
Condition 1X2 (Consistent)	6.862	1.433				
Condition 1X3 (Baseline)	6.857	1.548	-0.053	104	0.958	
Condition 1X3 (Inconsistent)	6.874	1.686				
Condition 2X3 (Consistent)	6.862	1.433	-0.038	106	0.969	
Condition 2X3 (Inconsistent)	6.857	1.548				

Table 12 presents the results of the independent-samples two-tailed *t*-tests on the average

absolute distance (AAD) variable, the vocal measure for solidarity. There were no significant

differences between conditions. Therefore, based on t-tests, the fourth hypothesis regarding the

relationship between status consistency and solidarity did not receive support. In other words, status consistency does not appear to have a significant relationship with solidarity.

Table 12: Independent Samples *t*-tests on *Average Absolute Distance* (*AAD)* between Conditions.

AAD (Solidarity)	Mean	Std. Dev.	*t*	df	Sig (2-tail)	
Condition 1X2 (Baseline)	5.401	1.321	-0.107	108	0.915	
Condition 1X2 (Consistent)	5.429	1.469				
Condition 1X3 (Baseline)	5.401	1.321	0.15	104	0.881	
Condition 1X3 (Inconsistent)	5.355	1.808				
Condition 2X3 (Consistent)	5.429	1.469	0.237	106	0.814	
Condition 2X3 (Inconsistent)	5.355	1.808				

Next, I estimated generalized estimating equation models to further examine the predicted effects of particular variables of interest. GEE is preferable when comparing effects from an intervention between two groups (Hubbard et al., 2010). Additionally, GEE nests participants within groups and produces estimates with robust standard errors that makes the underlying error covariance structure less susceptible to misspecification (Overall & Tonidandel, 2004). Tables 13a, 13b, and 13c present the results of the GEE models on the dependent variable proportion of influence. To avoid issues of collinearity between being male on AAR in Table 5, I ran separate analyses for being male and AAR on proportion of influence. In line with Table 8, only the consistent status condition appeared to have any significant predictors of proportion of influence. Both being male and AAR appeared to have significant, positive relationships on proportion of influence and this relationship held when I added controls to the model. Therefore,

in only the consistent status condition, being higher status appeared to have a significant positive influence on the proportion of influence exhibited.

Table 14 presents the results for the GEE analysis assessing acoustic analysis result (AAR), a vocal measure of status, for each condition. In both the baseline condition and the inconsistent status condition, being male and vocal pitch significantly predicted accommodation, including after controls were added to the models. In the consistent status condition though, being male did not appear to predict AAR until controls were added to the model. Recall that in Tables 8 and 9, being male and vocal accommodation, both appeared to have a significant positive relationship on proportion of influence in the consistent status condition. Therefore, based on the t-tests and GEE models for the consistent status condition, being the higher-status actor appears to have an indirect positive relationship with vocal accommodation through proportion of influence.

Returning to the baseline condition in Table 14, when the controls were added to the model, being male and vocal pitch both continue to appear to have an significant effect on AAR. In regard to race, non-whites appeared to have greater acoustic analysis scores in comparison to whites. In the consistent status condition, being male now appears to become significant as does the control variable expectation, both in a positive direction. In the inconsistent status condition, speaking time appeared to have a positive significant relationship on AAR while pitch appeared to have a negative significant relationship. When controls were added, the significance of being male on accommodation holds, as does speaking time and pitch. Besides in the consistent status condition, pitch appeared to have a significant negative relationship on the acoustic analysis result.

Table 13a: GEE Results on *Proportion of Influence* in the Baseline Condition (*N=108*).

DV = Proportion of Influence	Condition 1 (IV: Male)		With Controls		Condition 1 (IV: AAR)		With Controls	
Male	0.005		0.005					
	(0.776)		(0.075)					
AAR					0.017		-0.018	
					(0.112)		(0.112)	
Speaking Time			0.000				0.000	
			(0.000)				(0.000)	
Pitch			-0.000				-0.000	
			(0.000)				(0.000)	
Different Race			-0.059				-0.062	
			(0.053)				(0.057)	
Age			0.003				0.003	
			(0.004)				(0.004)	
Constant	0.498	***	0.446	***	0.496	***	0.470	***
	(0.039)		(0.132)		(0.062)		(0.126)	

Table 13b: GEE Results on *Proportion of Influence* in the Consistent Status Condition (*N*=112).

DV = Proportion of Influence	Condition 2 (IV: Male)		With Controls		Condition 2 (IV: AAR)		With Controls	
Male	0.168	**	0.183	**				
	(0.065)		(0.065)					
AAR					0.202	*	0.208	*
					(0.089)		(0.088)	
Speaking Time			0.000				0.000	
			(0.000)				(0.000)	
Pitch			0.000				-0.000	
			(0.000)				(0.000)	
Different Race			0.091				0.044	
			(0.052)				(0.051)	
Age			0.002				-0.003	
			(0.003)				(0.003)	
Constant	0.415	***	0.287	**	0.389	***	0.432	***
	(0.032)		(0.120)		(0.049)		(0.096)	

Table 13c: GEE Results on *Proportion of Influence* in the Inconsistent Status Condition (*N*=104).

DV = Proportion of Influence	Condition 3 (IV: Male)		With Controls		Condition 3 (IV: AAR)		With Controls	
Male	-0.089		-0.061					
	(0.083)		(0.080)					
AAR					0.010		0.015	
					(0.099)		(0.104)	
Speaking Time			0.000				0.000	
			(0.000)				(0.000)	
Pitch			0.000				0.001	
			(0.000)				(0.000)	
Different Race			0.013				0.020	
			(0.076)				(0.078)	
Age			-0.002				-0.002	
			(0.002)				(0.002)	
Constant	0.544	***	0.439	***	0.494	***	0.387	***
	(0.041)		(0.103)		(0.057)		(0.097)	

Table 14: GEE Results on the *Acoustic Analysis Result (AAR)* by Condition.

DV = AAR	Condition 1 (Baseline)		With Controls		Condition 2 (Consistent)		With Controls		Condition 3 (Inconsistent)		With Controls	
Male	0.249	*	0.219	*	0.183		0.261	*	0.235	*	0.247	*
	(0.119)		(0.116)		(0.149)		(0.132)		(0.116)		(0.103)	
Speaking Time	-0.000		0.000		0.000		0.000		0.001	***	0.001	***
	(0.000)		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)	
Pitch	-0.001	*	-0.001	*	-.000		-0.000		-0.001	*	-0.001	*
	(0.001)		(0.001)		(0.001)		(0.001)		(0.001)		(0.001)	
Different Race			-0.146	*			0.047				0.150	
			(0.072)				(0.112)				(0.131)	
Age			-0.008				0.009				0.004	
			(0.006)				(0.006)				(0.003)	
Expectation			0.018				0.110	*			-0.017	
			(0.044)				(0.006)				(0.027)	
Constant	0.734	***	0.853	*	0.4889	*	-0.568		0.462	**	0.456	
	(0.173)		(0.381)		(0.213)		(0.445)		(0.136)		(0.361)	

Table 15: GEE Results on *Self-Reported Relational Cohesion* by Condition.

DV = Cohesion	Condition 1 (Baseline)		With Controls		Condition 2 (Consistent)		With Controls	Condition 3 (Inconsistent)		With Controls	
Male	-0.249		-0.201		0.032		-0.233	-0.951	*	-0.877	
	(0.478)		(0.458)		(0.399)		(0.452)	(0.462)		(0.508)	
AAD	-0.049		0.032		-0.043		-0.024	-0.013		0.029	
	(0.141)		(0.136)		(0.068)		(0.070)	(0.115)		(0.098)	
AAR	-0.739		-0.613		0.916		0.839	0.480		0.509	
	(0.932)		(0.679)		(0.508)		(0.478)	(0.564)		(0.713)	
Speaking Time			0.001				0.001			0.001	
			(0.002)				(0.002)			(0.002)	
Pitch			-0.001				-0.004			0.001	
			(0.002)				(0.002)			(0.003)	
Different Race			-0.169				-0.375			-0.147	
			(0.324)				(0.358)			(0.443)	
Age			0.053				0.011			-0.012	
			(0.029)				(0.042)			(.0228)	

Constant	7.651	***	5.824	***	6.578	***	7.096	***	7.145	***	6.749	***
	(.932)		(1.519)		(0.499)		(1.607)		(0.807)		(1.031)	

Table 16: GEE Results on *Average Absolute Distance* (*AAD)* by Condition.

DV = AAD	Condition 1		W/ Controls		Condition 2		W/ Controls		Condition 3		W/ Controls	
Cohesion	-0.038		0.016		-0.061		-0.045		-0.028		-0.002	
	(0.104)		(0.095)		(0.078)		(0.072)		(0.127)		(0.109)	
Pitch			-0.000				-0.001				-0.007	
			(0.003)				(0.002)				(0.004)	
Different Race			0.068				0.064				0.159	
			(0.069)				(0.131)				(0.161)	
Age			-0.044	*			-0.045	*			-0.001	
			(0.026)				(.0192)				(0.022)	
Constant	5.664	***	6.411	***	5.849	***	7.207	***	5.547	***	6.893	***
	(0.702)		(0.835)		(0.668)		(0.899)		(1.057)		(1.431)	

Table 15 presents the results of the GEE models predicting self-reported measures of relational cohesion within each condition. In both the baseline and consistent status conditions, cohesion did not appear to have any significant predictors. In the inconsistent status condition, before controls were added to the model, being the higher status actor appeared to significantly predict lower self-reported relational cohesion scores in comparison to being the lower status actor. When the controls are added to the model though, no significant relationship on cohesion remains. Therefore, regarding the third hypothesis on inconsistent status structures and cohesion, the analysis finds some support, albeit weak overall.

Table 16 presents the GEE models predicting vocal synchrony (AAD) *within* each condition. The only significant predictor appeared to be age in the baseline and consistent status conditions, which had a negative relationship on AAD. In other words, with the exception of the inconsistent status condition, the younger the participants, the higher the degree of vocal synchrony found. Other than age in the baseline and status consistent condition though, there were no significant predictors on vocal synchrony. Notably, self-reported cohesion did not appear to have a significant relationship on solidarity.

Lastly, Table 17 presents the GEE models on vocal synchrony (AAD) *between* conditions. I added cohesion and then controls to the model. Only the control variable pitch appeared to have a significant relationship with vocal synchrony, which was in a positive direction. As a consequence, the fourth hypothesis related to status consistency and solidarity found no support in the experiment. Participants appeared to "sync up" at comparable rates across conditions.

Table 17: GEE Results on *Average Absolute Distance* (*AAD)* between Conditions (*N=324*).

DV = AAD	By Condition		W/ Cohesion		W/ Controls	
X Baseline						
Condition 2	0.029		0.0287		-0.059	
	(0.375)		(0.375)		(0.068)	
Condition 3	-0.046		-0.041		0.058	
	(0.435)		(0.435)		(0.065)	
Cohesion			-0.041		0.012	
			(0.062)		(0.009)	
Pitch					0.001	*
					(0.003)	
Diff Race					0.013	
					(0.011)	
Age					-0.005	
					(0.003)	
Constant	5.401	***	5.683	***	0.254	*
	(0.253)		(0.471)		(0.124)	

Supplemental Tests

In addition to the hypothesis tests, I conducted a series of supplemental *t*-tests by condition on all variables utilized in the study as an exploratory analysis in order to see if there were any unanticipated relationships between conditions. Table 18 presents the results of independent-samples two-tailed *t*-tests on variable average correlation (R_Average), an alternative measure of vocal synchrony. Just like AAD, the measure of vocal synchrony primarily utilized in the analysis, there was no significant difference in means between conditions. Again, participants across conditions appeared to synchronize at comparable rates.

Table 19 presents the chi-squared tests on the control variable *different races* between conditions. Condition 1 had the most dyads with different racial backgrounds with 14 in total and only 13 being of the same racial background. In contrast, condition 2 had 9 with different backgrounds and 19 with the same while condition 3 only had 6 with different backgrounds and

20 with the same. Since all of the p-values were above 0.05, we have sufficient evidence to conclude that was not a significant association between gender and different racial backgrounds within any condition.

Table 18: Independent Samples *t*-tests on *Variable Average Correlation (R_Average)* between Conditions.

R_Average (Solidarity)	Mean	Std. Dev.	*t*	df	Sig (2-tail)	
Condition 1X2 (Baseline)	0.344	0.237	1.111	108	0.269	
Condition 1X2 (Consistent)	0.289	0.274				
Condition 1X3 (Baseline)	0.344	0.237	-0.844	104	0.401	
Condition 1X3 (Inconsistent)	0.385	0.261				
Condition 2X3 (Consistent)	0.289	0.274	-1.847	106	0.068	
Condition 2X3 (Inconsistent)	0.385	0.261				

Table 19: Chi-Squared Results on *Different Races* within Conditions.

Different Races	N	White	Non-White	Chi 2	Sig
Condition 1 (Baseline- male)	27	6	8	0.571	0.751
Condition 1 (Baseline- female)	27	8	6		
Condition 2 (Consistent- male)	28	2	7	5.556	0.062
Condition 2 (Consistent- female)	28	7	2		
Condition 3 (Inconsistent- male)	26	2	4	1.333	0.513
Condition 3 (Inconsistent- female)	26	4	2		

Table 20: Paired Samples *t*-tests on *Age, Pitch,* and *Speaking Time* by Condition.

Age	Mean	Std. Dev.	t	df	Sig (2-tail)	
Condition 1 (Baseline- male)	24.444	5.807	-0.796	52	0.429	
Condition 1 (Baseline- female)	26	8.335				
Condition 2 (Consistent- male)	23.893	4.557	-2.057	54	0.047	*
Condition 2 (Consistent- female)	28.179	10.041				
Condition 3 (Inconsistent- male)	28.923	11.73	0.268	50	0.789	
Condition 3 (Inconsistent- female)	28.154	8.762				
Pitch						
Condition 1 (Baseline- male)	230.645	96.913	0.291	52	0.773	
Condition 1 (Baseline- female)	224.253	60.534				
Condition 2 (Consistent- male)	223.462	75.917	-2.128	54	0.038	*
Condition 2 (Consistent- female)	263.932	66.051				
Condition 3 (Inconsistent- male)	208.519	88.822	-1.409	50	0.165	
Condition 3 (Inconsistent- female)	237.897	58.435				
Speaking Time						
Condition 1 (Baseline- male)	212.889	116.708	-0.662	52	0.511	
Condition 1 (Baseline- female)	235.222	130.693				
Condition 2 (Consistent- male)	269.464	114.543	1.275	54	0.208	
Condition 2 (Consistent- female)	230.214	115.883				
Condition 3 (Inconsistent- male)	241.192	135.194	-1.879	50	0.066	
Condition 3 (Inconsistent- female)	314.539	146.015				

Table 20 presents the paired-samples two-tailed t-tests on the control variables age, pitch, and speaking time. Regarding age, only the consistent status condition had a significant difference, with females being older in comparison to males. Similarly, pitch only a significant different in the consistent status condition, with females having a higher pitch on average in comparison to males. The variable speaking time though did not have any significant differences within conditions. These significant differences are interesting since they both are associated with status advantages, particularly age when salient, but neither were significant in the regression analyses for the consistent status condition.

Table 21 presents the paired-samples two-tailed *t*-tests on each of the survey-based variables that averaged the scores of their own perceptions of their performance with the perceptions of their partner of their performance on the following: prestige, dominance, influence, and expectation. There were no significant differences between genders across all conditions. Next, to further investigate differences by gender within conditions, I split the composite variables up into self-rankings and partner-rankings and again conducted *t*-tests.

Table 21: Paired-Samples *t*-tests on P*restige, Dominance, Influence* and *Expectation* by Condition.

Prestige	**Mean**	**Std. Dev.**	*t*	**df**	**Sig (2-tail)**	
Condition 1 (Baseline- male)	5.356	1.006	-1.086	52	0.280	
Condition 1 (Baseline- female)	5.576	1.097				
Condition 2 (Consistent- male)	5.275	1.026	-0.585	54	0.560	
Condition 2 (Consistent- female)	5.382	0.911				
Condition 3 (Inconsistent- male)	5.514	1.016	0.056	50	0.956	

Condition 3 (Inconsistent- female)	5.502	1.179			
Dominance					
Condition 1 (Baseline- male)	3.307	1.028	0.605	52	0.547
Condition 1 (Baseline- female)	3.161	1.439			
Condition 2 (Consistent- male)	2.885	1.251	-0.535	54	0.594
Condition 2 (Consistent- female)	3.018	1.370			
Condition 3 (Inconsistent- male)	3.074	1.162	0.963	50	0.338
Condition 3 (Inconsistent- female)	2.819	1.518			
Influence					
Condition 1 (Baseline- male)	5.339	0.981	-0.033	52	0.974
Condition 1 (Baseline- female)	5.346	0.129			
Condition 2 (Consistent- male)	5.292	0.966	-0.064	54	0.949
Condition 2 (Consistent- female)	5.304	0.998			
Condition 3 (Inconsistent- male)	5.256	0.992	-0.879	50	0.382
Condition 3 (Inconsistent- female)	5.449	1.228			
Expectation					
Condition 1 (Baseline- male)	6.919	1.401	-1.403	52	0.164
Condition 1 (Baseline- female)	7.290	1.343			
Condition 2 (Consistent- male)	7.125	1.256	-0.940	54	0.349
Condition 2 (Consistent- female)	7.327	1.008			
Condition 3 (Inconsistent- male)	7.205	1.340	-1.327	50	0.188
Condition 3 (Inconsistent- female)	7.551	1.320			

Table 22 presents the results of the paired samples two-tailed *t*-tests on self-rankings by gender for prestige, dominance, influence, and expectation within each condition. Interestingly, there was a significant difference between genders on partner rankings of influence and expectation but only in the inconsistent status condition, with, females, on average ranking their selves significantly higher in comparison to males on both influence and expectation. In other words, when lower-status actors received the status intervention, they reported higher perceptions of how influential they were as well as had higher expectations for themselves in comparison to their higher-status partner.

Table 22: Paired Samples *t*-tests on Self Rankings of *Prestige, Dominance, Influence* and *Expectation* by Condition.

Prestige - Self	**Mean**	**Std. Dev.**	*t*	**df**	**Sig (2-tail)**	
Condition 1 (Baseline- male)	5.472	0.979	0.125	52	0.125	
Condition 1 (Baseline- female)	5.875	0.917				
Condition 2 (Consistent- male)	5.411	1.084	-0.027	54	0.788	
Condition 2 (Consistent- female)	5.482	0.882				
Condition 3 (Inconsistent- male)	5.529	0.929	-1.694	50	0.097	
Condition 3 (Inconsistent- female)	5.918	0.715				
Dominance - Self						
Condition 1 (Baseline- male)	3.460	0.829	0.549	52	0.586	
Condition 1 (Baseline- female)	3.291	1.373				
Condition 2 (Consistent- male)	3.143	1.139	0.956	54	0.343	
Condition 2 (Consistent- female)	2.852	1.137				

Condition 3 (Inconsistent- male)	3.170	1.053	0.653	50	0.517	
Condition 3 (Inconsistent- female)	2.939	0.287				
Influence - Self						
Condition 1 (Baseline- male)	5.469	0.997	0.133	52	0.895	
Condition 1 (Baseline- female)	5.432	1.053				
Condition 2 (Consistent- male)	5.583	0.906	0.567	54	0.573	
Condition 2 (Consistent- female)	5.441	0.978				
Condition 3 (Inconsistent- male)	5.154	0.860	-2.596	50	0.012	*
Condition 3 (Inconsistent- female)	5.795	0.919				
Expectation - Self						
Condition 1 (Baseline- male)	7.111	1.429	-0.563	52	0.576	
Condition 1 (Baseline- female)	7.333	1.471				
Condition 2 (Consistent- male)	7.357	1.269	-0.079	54	0.937	
Condition 2 (Consistent- female)	7.381	0.967				
Condition 3 (Inconsistent- male)	7.077	1.301	-2.272	50	0.027	*
Condition 3 (Inconsistent- female)	7.808	0.999				

Table 23 presents the results of the paired samples two-tailed *t*-tests on partner's rankings of prestige, dominance, influence, and expectation within each condition. Unlike their self-rankings, there were no significant differences by gender in terms of how they evaluated their partners by condition.

Table 23: Paired Samples *t*-tests on Partner-Rankings of *Prestige, Dominance, Influence* and *Expectation* by Condition.

Prestige - Partner	Mean	Std. Dev.	*t*	df	Sig (2-tail)	
Condition 1 (Baseline- male)	5.241	1.037	-0.122	52	0.904	
Condition 1 (Baseline- female)	5.278	1.95				
Condition 2 (Consistent- male)	5.138	0.964	-0.561	54	0.577	
Condition 2 (Consistent- female)	5.281	0.943				
Condition 3 (Inconsistent- male)	5.5	1.115	1.178	50	0.245	
Condition 3 (Inconsistent- female)	5.087	1.401				
Dominance - Partner						
Condition 1 (Baseline- male)	3.153	1.191	0.328	52	0.744	
Condition 1 (Baseline- female)	3.032	1.517				
Condition 2 (Consistent- male)	2.628	1.325	-1.431	54	0.158	
Condition 2 (Consistent- female)	3.184	1.573				
Condition 3 (Inconsistent- male)	2.978	1.276	0.700	50	0.487	
Condition 3 (Inconsistent- female)	2.698	1.592				
Influence - Partner						
Condition 1 (Baseline- male)	5.209	0.966	-0.199	52	0.843	
Condition 1 (Baseline- female)	5.259	0.849				
Condition 2 (Consistent- male)	5	0.952	-0.633	54	0.529	
Condition 2 (Consistent- female)	5.167	1.016				
Condition 3 (Inconsistent- male)	5.359	1.115	0.728	50	0.469	

Condition 3 (Inconsistent- female)	5.103	1.407				
Condition 3 (Inconsistent- female)	5.795	0.919				
Expectation - Partner						
Condition 1 (Baseline- male)	6.728	1.371	-1.463	52	0.149	
Condition 1 (Baseline- female)	7.247	1.229				
Condition 2 (Consistent- male)	6.893	1.221	-1.246	54	0.218	
Condition 2 (Consistent- female)	7.274	1.062				
Condition 3 (Inconsistent- male)	7.333	1.392	0.094	50	0.926	
Condition 3 (Inconsistent- female)	7.295	1.559				

Lastly, Table 24 and Table 25 present the results of the GEE models on variable average correlation (R_Average), an alternative measure for vocal synchrony. Just like with the other measure for vocal synchrony (AAD), there were no significant differences within or between conditions related to status or cohesion. Again, there did not appear to be a significant relationship between status consistency and solidarity. Interestingly, when using AAD as the dependent variable for solidarity in Table 16, the baseline and consistent status condition found a significant, negative relationship between age. When using R_Average as the dependent variable for solidarity in Table 25, only the inconsistent status condition found a significant, negative relationship with age. In addition, speaking time appeared to have a positive significant relationship on the measure for solidarity. From this. we can conclude with more certainty that solidarity did not appear to be affected by status consistency but being younger in age appears to have a significant relationship on solidarity.

Table 24: GEE Results on *Variable Average Correlation* (*R_Average)* between Conditions (*N*=324).

DV = R_Average	By Condition		W/ Cohesion		W/ Controls	
X Baseline						
Condition 2	-0.054		-0.054		-0.067	
	(0.069)		(0.069)		(0.068)	
Condition 3	0.041		0.041		0.040	
	(0.068)		(0.069)		(0.062)	
Cohesion			0.009		0.008	
			(0.01)		(0.009)	
Peak Freq					0.000	
					(0.000)	
Different Race					-0.112	
					(0.056)	
Age					-0.004	
					(0.003)	
Speaking time					0.000	
					(0.000)	
Constant	0.344	***	0.278	**	0.275	
	(0.046)		(0.088)		(0.126)	

Table 25: GEE Results on *Variable Average Correlation* (*R_Average)* by Condition.

DV = R_Average	**Condition 1**		**W/ Controls**		**Condition 2**		**W/ Controls**		**Condition 3**		**W/ Controls**	
Cohesion	-0.013		-0.009		0.035		0.037		0.009		-0.004	
	(0.014)		(0.013)		(0.019)		(0.023)		(0.019)		(0.016)	
Pitch			0.001				0.001				-0.000	
			(0.000)				(0.001)				(0.001)	
Different Race			0.012				0.019				0.313	
			(0.019)				(0.029)				(0.045)	
Age			-0.004				0.001				-0.010	*
			(0.005)				(0.005)				(0.005)	
Speaking time			-0.000				0.000				0.001	*
			(0.000)				(0.000)				(0.000)	
Constant	0.431	***	0.376	*	0.048		-0.223		0.322	*	0.536	*
	(0.113)		(0.179)		(0.156)		(0.184)		(0.139)		(0.221)	

Results of supplemental analyses give further evidence in support of the findings from the primary analysis. Most importantly, even when using a different measure for vocal synchrony, there still did not appear to be any significant relationship with status consistency. Furthermore, self-reported cohesion did not appear to predict vocal synchrony. Interestingly, age appeared to be the only significant predictor of vocal synchrony. While one measure of vocal synchrony found a negative relationship in the first two conditions; the other measure found a similar relationship in the last condition. The results suggest that younger interactants sync up at great rates in comparison to older interactants. In addition, the result of the t-tests, particularly those related to perceptions of their partner in the inconsistent status conditions, indicate that lower-status actors ranked their partners significantly higher in terms of influence and expectations in comparison to the higher-status actors. This lends some support to the notion of there being reduced cohesion within the inconsistent status condition since there appeared to be significantly different perceptions related to influence and expectation within the task group.

CHAPTER 7: DISCUSSION

In general, this study sought to determine whether there were unintended consequences that accompanied status interventions as several theorists have argued (Houser & Lovaglia, 2002; Turner, 2002). Support emerges for the first two of the six hypotheses intended to replicate Pugh & Wahrman's (1983) finding that without a status intervention, a consistent status structure forms which advantages the actor with the high-status diffuse characteristics. When the status intervention advantaged the high-status actor, a comparable consistent status structure emerged. Only when the status intervention advantaged the low-status actor did the inequality neutralize. However, in the current study, without an intervention as well as in the inconsistent status condition, the proportion of influence was effectively the same for participants. Only when the intervention advantaged the high-status actor did the inequality emerge in terms of the proportion of influence between interactants. These findings likely reflect the changing dynamics of cultural beliefs related to gender (Thébaud & Halcomb, 2019; Hopcroft, 2006; Cichy, Lefkowitz, & Fingerman, 2007; Lagerlöf, 2003; Foschi & LaPointe, 2002) and suggest that gender inequality within task groups may now be held in abeyance to some degree, at least among college-aged students (Hopcroft, 2006), until a status intervention confirms traditional cultural scripts. These findings also point to the fact that status characteristics can have varying effects within different social environments (Lovaglia, Lucas, Rogalin, & Darwin, 2006).

The other two hypotheses related to status in the study examined differences in behavioral accommodation across conditions. In the condition without an intervention as well as in the status-consistent condition, the low-status actor accommodated the high-status actor during their conversation. In other words, they "put in more work" to "sync up" with the other participant. Only in the status-inconsistent condition did the differences in accommodation

appear to neutralize some. Nonetheless, when I isolated the predicted effects on vocal accommodation, being male directly or indirectly predicted vocal stability within each condition. Therefore, it appears that women behaviorally accommodate men, which only partially diminishes with a status intervention intended to neutralize undesirable status effects.

Next, on self-reported cohesion, the results largely mirrored the null findings Vincent (2015) found between status consistency and cohesion. Nonetheless, there was a significant difference, albeit a weak one, only within the inconsistent status structure, with the lower-status actors reported feeling higher levels of cohesion in comparison to the higher-status actors. This finding lines up with other empirical research that finds that leaders with disadvantaged status characteristics face "stricter standards", are often considered less "likeable" in comparison to leaders with consistent status characteristics and have been found to face a wide array of "backlash effects" when they present themselves as high status or attempt to fill high status positions (Rudman & Phelan, 2007; Foschi, 2000). Relatedly, there is evidence that atypical leaders within groups, like women or minorities, face problems of legitimacy that limit their influence (Vial, Napier, & Brescoll, 2016; Ridgeway & Nakagawa, 2014; Butler & Geis, 1990).

Lastly, the study found no significant relationship with status structure or cohesion on solidarity. Interactants appeared to behaviorally converge equally across conditions. The null results suggest that there are no unintended consequences related to status interventions on solidarity. Nonetheless, it is possible that dynamics related to solidarity operate differently in various situations. In general, relational cohesion theory focuses on *weak* solidarity, especially as it relates to exchange processes (Lawler, 2001). Cognitive differences in orientation to a group, particularly if they understand the group to have a shared ethos or not, likely alters the disposition of members from being focused on themselves (I-mode) to being focused on the

group (we-mode) (Salmela, 2014). In other words, *collectively intentional* emotions in regard to a shared concern arguably allows for a sense of *we* to emerge that accompanies stronger forms of solidarity (Heise, 1998; Baum, 1975). This sense of *we* is likely associated with feelings of trust towards the group and the degree of "openness" within interaction (Gurvitch, 1941; Baum, 1975; Skovertz, 1998; Thome, 1999; Lindenberg, 2000). Additionally, instead of positive or negative emotions generating cohesion and solidarity as RCT suggests, stronger forms of solidarity appear to have more to do with the *intensity* of emotions involved (Tava, 2023; Collins, 2004; Turner, 1967; Gurvitch, 1941). Figure 3 provides a diagram of the theoretical modification in terms of producing greater variation of group solidarity.

One limitation of the procedure of this study is that the measure for cohesion was obtained after the behavioral measures for solidarity were obtained. As such, I was not able to properly assess the relationship between cohesion and solidarity. Relatedly, a behavioral measure for cohesion and a questionnaire related to solidarity (instead of cohesion) would add considerable internal validity in terms of examining the interplay between cohesion, an individual-level sentiments, and solidarity, a group-level structural phenomenon (Shelly & Webster, 1997). This study also did not capture any measure for emotion or cognition.
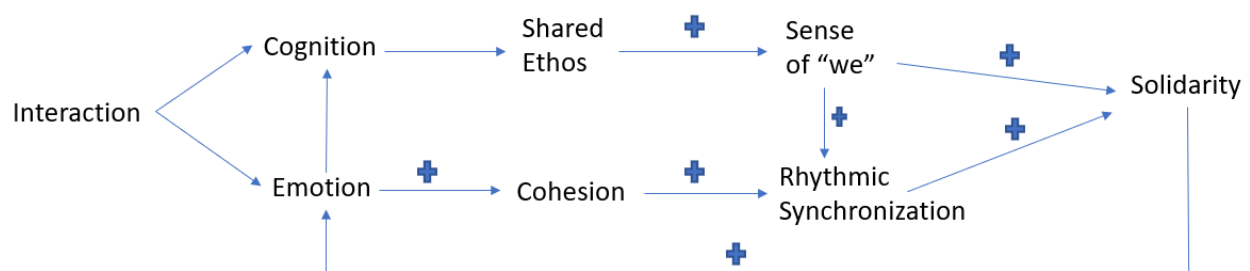

Figure 3. Theoretical Relationship between Emotion, Cognition, and Solidarity.

While the results do suggest that status inequality is not as resilient as theorists have argued (Houser & Lovaglia, 2002; Turner, 2002), there still appeared to be some difference in individual sentiment within inconsistent status structures. Nonetheless, the results align with past research that finds that status interventions can be critically important in order to overcome persistent status beliefs (Webster & Walker, 2017). Not only have status interventions been found to transfer to different partners and group tasks (Markovsky et al., 1984), to diffuse rapidly from an initial encounter (Ridgeway & Erickson, 2000), but that disconfirmation has a much more powerful effect on status beliefs compared to confirmation (Wagner, Ford, & Ford, 1986). The current study adds to this literature in that there seems to be no difference in weak solidarity when status inconsistent information is introduced to groups. Nonetheless, there does appear to be some negative, albeit weak, sentiments from actors with the advantaged diffuse status characteristic within inconsistent status structures. Future research should examine how differences in cognitive orientation relate to differences in rhythmic synchronization, especially in regard to status-consistency.

CHAPTER 8: POLICY IMPLICATIONS

The fact that there were no differences in solidarity exhibited between conditions and only a weak difference in cohesion in the inconsistent status condition has implications for how we understand gender inequality. In general, there are two diverging approaches to gender roles: the functionalist approach and the situational approach (Webster & Rashotte, 2009; Gerber, 2009). In the functionalist approach to gender roles, we would expect considerable unanticipated negative consequences associated with challenging relatively fixed roles since they are believed to promote effective functioning of the social system (Parsons & Bales, 1955). In contrast, in the situational view, structural position is associated with more flexible expectations related to gender roles. For example, past research finds that individuals occupying subordinate positions, regardless of gender, are associated with expressive behaviors that emphasize social-emotional attitudes. Conversely, in superordinate positions, individuals are associated with instrumental and agentic behaviors that are associated with greater competence (Meeker & Weitzel-O'Neill, 1977; Ridgeway & Johnson, 1990; Giannopoulos, Conway, & Mendelson, 2005; Myaskovsky, Unikel, & Dew, 2005). Unlike the functionalist view that understands gender roles to be more fixed, the situational view argues that gender roles are considerably flexible and are adaptations to the context in which individuals find themselves in.

These two visions of gender roles greatly differ in terms of what is involved with overcoming undesirable status effects related to gender. In the functionalist perspective, changing gender roles requires altering the socialization experiences of nearly all children as well as altering family roles to be in line with these changes. In the situational perspective, changing gender roles merely requires devising situation-specific interventions that alter structural characteristics within particular situations (Webster & Rashotte, 2009). The lack of

negative unintended consequences related to cohesion and solidarity found in the experiment give some evidence in support of the situation-specific approach to gender roles. Thus, to move towards greater gender equality in the situation-specific approach, all that is theoretically needed is to continue to introduce status information that counteracts gender stereotypes related to competence within specific situations or to alter how people approach certain tasks and interaction conditions. Indeed, like this study found, gender expectations already appear to be moving towards greater equality over the past several decades (Hopcroft, 2016; Cichy et al., 2007), likely a result of the leveling political and economic changes related to gender that have occurred (Ridgeway, 2007).

Nonetheless, gender stereotypes still lag behind the changes in material arrangements. The two key reasons for the lag in status characteristics arguably derive from the fact that people are biased towards confirming stereotypes instead of disconfirming them (Fiske, 1998; Schneider, 2005) and that gender stereotypes are widely institutionalized within mass media (Sechrist & Stangor, 2001). The lag between power and status in relation to gender creates a "window" where traditional ideas about gender are able to be reinscribed into the novel social environment (Ridgeway, 2007). Once this window is constructed, it allows for implicitly gendered organizational procedures to persist and spread through bureaucratic inertia alone (Ridgeway, 2019; Baron, Hannan, Hsu, & Kocak, 2007; Phillips, 2005). In other words, despite legal and structural changes aimed at countering gender inequality, interaction mechanisms can act as an "invisible hand" that preserves inequality (Ridgeway, 1997).

Historically, public policy approaches to social inequality tend to either focus on issues related to structural representation, explicit discrimination, or welfare policies. Policymakers have, by and large, neglected group processes from consideration (Pandey, Smith, Pandey, &

Ojelabi, 2023; Mandel, 2009). By overlooking cultural beliefs, it has limited policymakers from being able to explain and alleviate systemic inequality. As Ridgeway (2014: 2) argued, "in contrast to resources and power, status is not seen as an *independent* mechanism by which inequality between individuals and groups is *made*. This… is a major misjudgment that greatly limits our ability to understand how stratification actually works." The effects of status in distorting perceptions related to costs, rewards, investments, and comparisons more generally are well-documented (Ridgeway, 2019). Status-based social differences, like gender and race, remain woven into organizational practices (Sargent, Yavorsky, & Sandoval; 2021; Yavorsky, 2019; Yavorsky, Keister, Qian, & Nau, 2019; Rudman & Phelan, 2007; Acker, 1990) and maintain inequality predominantly through emergent, "bottom-up" processes (Collins, 1981). As Tomaskovic-Devey & Avent-Holt (2019, p. 231) state, "equality in interaction is much more difficult to achieve than changes in law or organizational policy, particularly when there are cultural messages that reinforce categorical status distinctions." Incorporating group processes into public policy serves to help resolve the question of why status-based inequality is so persistent and resilient despite so many policies designed to overcome discrimination based on status characteristics (Ridgeway, 2014).

In general, there are two approaches that researchers have taken to address social inequality: frameshifting and feasibility strategies (DiPrete & Fox-Williams, 2021). In the frameshifting approach, the quality and communication of the research is believed to shape the way the public understands a problem. The key assumption here is that culture, rather than policy, fundamentally determines social inequality. Although frameshifting is by far the most common approach, particularly among sociologists, it's track record is mired by confrontation with impermeable political paradigms. For example, looking at global warming, there is now

overwhelming scientific evidence that finds that global warming is driven by human activity and that it is in society's overall interest to mitigate the use of fossil fuels. Nonetheless, there is little concrete policy in the way of actually addressing the growing climate crisis (Lynas, Houlton, & Perry, 2021; Wong-Parodi & Feygina, 2020; Petersen, Stuart, & Gunderson, 2019).

The problem of social inequality is arguably even more ideological than climate change, particularly since social position tends to either be attributed to personal failings/successes or to structural conditions. Additionally, unlike global warming, the evidence is nowhere near as definitive or comprehensive and the negative effects on society are not nearly as clear cut. For instance, conservatives tend to believe their interests at risk when efforts are geared at reducing social inequality (Hochschild, 2016). It also doesn't help from a policy perspective that social scientists are widely seen to be partisans with political objectives (DiPrete & Fox-Williams, 2021). In other words, while frameshifting research may still be a necessary condition for addressing social inequality, it does not appear to be sufficient by itself to actually mitigate the issue.

In contrast to the frameshifting approach, feasibility strategies illuminate social realities that provide insights into how concrete behaviors and strategies can impede inequality. Feasibility research identifies promising interventions that can be rigorously evaluated and followed-up on. In general, feasibility research looks for positive feedback loops wherein a cumulative advantage process might improve the situation of disadvantaged actors (DiPrete & Eirich, 2006). The feasibility approach is analogous with drug trials that move through an array of trials before being introduced to the public. As DiPrete & Fox-Williams (2021, p. 7) state, to construct feasibility strategies, policymakers need "policy research that uses experiments or high-quality natural experiments to assess the causal effects of a given treatment…". Once these

highly controlled and rigorously evaluated interventions find supportive evidence in an artificial lab environment, they then become ripe for pilot implementation and further evaluation in "real-world" settings. Heckathorn's (1996) intervention designed to reduce the spread of HIV among peer networks is an example of this approach within social policy.

Additionally, being able to *demonstrate* applications of sociological knowledge in real-world problems also implicitly helps to incorporate sociological explanations into society instead of remaining stuck within academia (Turner, 2019). Indeed, without a theory illuminating group processes, practitioners will inherently be unable to know to what to do in terms of mitigating emergent processes related to social inequality. Instead of continuing to view sociological theory as irrelevant and remote to their goals, feasibility strategies are able to demonstrate to practitioners the importance of theory for policy implementation. Also, these strategies place theorists and practitioners into active dialogue that could facilitate further theoretical and practical developments (Turner, 2001).

In terms of moving status interventions from the lab to the "real world", schools are arguably among the prime candidates. Not only are schools a key place for generating social inequality (Domina, Penner, & Penner, 2017) but they also provide opportunities for rigorous evaluations and considerable variation (Schneider & Keesler, 2007). Additionally, schools are sites where incremental change can be implemented without the need for politically infeasible State-funding mechanisms. Even more, there has already been successful status interventions within schools. Cohen and Lotan (1995), for example, tested two different interventions attempting to overcome status inequality in the classroom. The more successful of the two interventions involved having teachers provide lower status students with specific, positive, public evaluations after an activity. These treatments were found to significantly increase the

participation of the lower status students and appeared to have no impact on the participation of the higher status students. The effects from these treatments also appeared to generalize to other tasks. Additionally, the more frequently they implemented these treatments to counteract undesirable status effects, the more they found equal-status interaction among the students, which suggests the status interventions were highly successful in mitigating undesirable status effects.

Another candidate for possible status interventions is the large number of organizations that are government contractors since they are required to prepare Affirmative Action plans and to conduct utilization analyses (Bielby, 2000). Research finds that companies subject to regulation by the Office of Federal Contract Compliance Programs differ widely in terms of practices and policies geared towards equal opportunity. While nearly all medium and large sized companies have explicit antidiscrimination policies, these rarely involve any kind of explicit accountability measures or evaluation designs. In fact, most company policies related to antidiscrimination tend to be merely symbolic with little connection to personnel (Edelman & Petterson, 1999). By designing feasibility strategies related to status interventions, it could serve to put teeth on antidiscrimination policies.

Governing in complexity requires greater flexibility in policy formation, design, and implementation (Colander & Kupers, 2014). Indeed, the key role for the various levels of the State in approaching society as complex, interconnected, emergent processes is one of coordination (Mendell & Alain, 2013). Collaboration, dialogue, and inclusion have long been found to be critically important for organizations to be able to interact efficiently (Bianchi, Nasi, & Rivenbark, 2021; Sullivan & Skelcher, 2002). By involving the various stakeholders in the policy process, known as co-construction (Vaillancourt, 2009), it reduces information asymmetry

as well as reduces overall transaction costs. Even more, since the co-construction of policy relies on stakeholders understanding new policies and programs, it ultimately leads to more adaptable, adjustable, and innovative policy implementations. From an actors' perspective, the co-construction of policy involves tearing down traditional barriers between organizations and sectors that are accustomed to remaining separated and working primarily in their own member's interests (Mendell & Alain, 2013).

CONCLUSION

Historically, policymakers have ignored the reality of groups, except as interest groups fighting for political influence (Schattschneider, 1960; Lowi, 1979). The legal individualism of modernity attaches all values to the person and overlooks the possibility of group processes (Gurvitch, 1942). With the increasing calls to mitigate group inequality, policy remains stuck at the individual level. The focus on individual discrimination misses how social expectations work to maintain inequality. As Colander & Kupers (2014, p. 49) state in *Complexity and the Art of Public Policy*: "Interconnections are no longer secondary effects that can safely be ignored; the disproportionate effects caused by the interconnections increasingly become the dominant dynamic." Without theories that explain the emergent phenomenon that derive from groups, policymakers will inevitably fall short in their attempts to mitigate systemic inequality. There is now overwhelming evidence that demonstrates that self-interest is unable to account for a wide array of human behavior (Camerer, 2011; Collins, 2004; Smith, 2003; Fetchenhauer, Flache, Buunk, & Lindenberg, 2006; Turner, 2020). By focusing squarely on individual-level processes, policymakers have neglected a central dynamic in how social discrimination occurs and therefore are unable to properly tackle the problem of social inequality.

In addition, the current study adds to the literature by demonstrating a bio-social approach to public policy that ultimately allows for considerably more validity in policy design. As Voland (1999, p. 170) argued: "Biological knowledge permits predictions- and this is its value- relating to the probabilities with which certain behaviors will arise due to certain conditions. And it furthermore allows predictions about the effort of an education that will induce desired behavior tendences or prevent undesired ones, respectively." Overall, incorporating theoretical complexity and methodological advances into public policy serves to

bolster policy design and implementation. By strengthening the internal validity of policy research, it will undoubtedly lead to better policies that will be able to help restore a greater sense of solidarity within society.

Overall, theory-driven intervention strategies are currently underutilized with public policy. Although there is now considerable evidence supporting the use of status interventions to counteract undesirable status effects (Walker, 2019), there remains a lack of interest from policymakers. As long as discourse related to social inequality remains myopically focused on either social structure or individual responsibility, group processes with their unintended consequences will remain etched in society. Instead of individuals being understood as either totally independent or totally dependent on social structure, a balance can arguably be achieved by conceptualizing the individual as being confronted with social structure that permits certain possibilities for altering it (Hogsbro, Pruijt, Pokrovsky, & Tsobanoglou, 2009). In sum, by incorporating group processes into Public Policy, policymakers must finally acknowledge the complexity of society with its emergent properties as well as discard simplistic, authoritarian approaches, more generally.

REFERENCES

Acker, J. (1990). Hierarchies, Jobs, Bodies: A theory of gendered organizations. *Gender & Society*, *4*(2), 139-158.

Baron, J. N., Hannan, M. T., Hsu, G., & Koçak, Ö. (2007). In the Company of Women: Gender inequality and the logic of bureaucracy in start-up firms. *Work and Occupations*, *34*(1), 35-66.

Baum, R. C. (1975). The System of Solidarities: A working paper in general action analysis. *Indian Journal of Social Research*, *16*(1-2), 306-353.

Berger, J., & Wagner, D. G. (2007). Expectation states theory. *The Blackwell Encyclopedia of Sociology*.

Berger, J., & Webster, M. (2006). Expectation, Status, and Behavior. In *Contemporary Social Psychological Theories* (Pp. 268-290). Stanford Social Sciences.

Berger, J., Ridgeway, C. L., Fisek, M. H., & Norman, R. Z. (1998). The Legitimation and Delegitimation of Power and Prestige Orders. *American Sociological Review*, *63*(3), 379-405.

Bianchi, C., Nasi, G., & Rivenbark, W. C. (2021). Implementing Collaborative Governance: models, experiences, and challenges. *Public Management Review*, *23*(11), 1581-1589.

Bielby, W. T. (2000). Minimizing Workplace Gender and Racial Bias. *Contemporary Sociology*, *29*(1), 120-129.

Blumer, H. (1936). Social Attitudes and Nonsymbolic Interaction. *The Journal of Educational Sociology*, *9*(9), 515-523.

Brewer, M. B. & Brown, R. (1998). Intergroup Relations. In *Handbook of Social Psychology* (Pp. 554-594). McCraw Hill.

Bruder, M., Fischer, A., & Manstead, A. S. (2014). Social Appraisal as a Cause of Collective Emotions. In *Collective Emotions* (Pp. 141-155). Oxford University Press.

Butler, D., & Geis, F. L. (1990). Nonverbal Affect Responses to Male and Female Leaders: Implications for leadership evaluations. *Journal of Personality and Social Psychology*, *58*(1), 48-59.

Camerer, C. F. (2011). *Behavioral Game Theory: Experiments in strategic interaction*. Princeton University Press.

Chapais, B. (2015). Competence and the Evolutionary Origins of Status and Power in Humans. *Human Nature*, *26*, 161-183.

Cheng, J. T., Tracy, J. L., Foulsham, T., Kingstone, A., & Henrich, J. (2013). Two Ways to the Top: Evidence that dominance and prestige are distinct yet viable avenues to social rank and influence. *Journal of Personality and Social Psychology*, *104*(1), 103-125.

Chiao, J. Y., Harada, T., Oby, E. R., Li, Z., Parrish, T., & Bridge, D. J. (2009). Neural Representations of Social Status Hierarchy in Human Inferior Parietal Cortex. *Neuropsychologia*, *47*(2), 354-363.

Cichy, K. E., Lefkowitz, E. S., & Fingerman, K. L. (2007). Generational Differences in Gender Attitudes between Parents and Grown Offspring. *Sex Roles*, *57*, 825-836.

Cohen, B. P. (1989). *Developing Sociological Knowledge: Theory and method*. Nelson-Hall.

Cohen, E. G., & Lotan, R. A. (1995). Producing Equal-Status Interaction in the Heterogeneous Classroom. *American Educational Research Journal*, *32*(1), 99-120.

Colander, D., & Kupers, R. (2014). *Complexity and the Art of Public Policy*. Princeton University Press.

Collins, R. (1981). On the Microfoundations of Macrosociology. *American Journal of Sociology*, *86*(5), 984-1014.

Collins, R. (1988). *Theoretical Sociology*. Harcourt College Pub.

Collins, R. (1994). Why the Social Sciences won't become High-Consensus, Rapid-Discovery Science. In *Sociological forum* (Vol. 9, pp. 155-177). Kluwer Academic Publishers-Plenum Publishers.

Collins, R. (2004). *Interaction Ritual Chains*. Princeton University Press.

Condon, W. S., & Sander, L. W. (1974a). Synchrony Demonstrated between Movements of the Neonate and Adult Speech. *Child Development, 45*(2), 456-462.

Condon, W. S., & Sander, L. W. (1974b). Neonate Movement is Synchronized with Adult Speech: Interactional Participation and Language Acquisition. *Science* 183(4120), 99-101.

Coupland, N., Coupland, J., Giles, H., & Henwood, K. (1988). Accommodating the Elderly: Invoking and Extending a Theory. *Language in Society* 17(1), 1-41.

Dippong, J. (2012). The Effects of Scope Condition-based Participant Exclusion on Experimental Outcomes in Expectation States Research: A meta-analysis. *Social Science Research, 41*(2), 359-371.

Dippong, J. (2015). Priming Effects and Performance Expectations in Mixed-Sex Task

    Groups. *Social Psychology Quarterly, 78*(4), 387-398.

Dippong, J. (2020). Status and Vocal Accommodation in Small Groups. *Sociological Science 7*,

    291-313.

Dippong, J., & Kalkhoff, W. (2018). Modeling Small Group Status and Power Dynamics Using

    Vocal Accommodation. In *Advances in Group Processes* (Vol. 35, pp. 51-74). Emerald

    Publishing Limited.

Dippong, J., Kalkhoff, W., & Jamil, C. (2022). Vocal Accommodation and Perceptions of

    Speakers' Prestige and Dominance. *Social Psychology Quarterly, 85*(2), 111-130.

DiPrete, T. A., & Eirich, G. M. (2006). Cumulative Advantage as a Mechanism for Inequality: A

    review of theoretical and empirical developments. *Annual Review of Sociology*, *32*, 271-

    297.

DiPrete, T. A., & Fox-Williams, B. N. (2021). The Relevance of Inequality Research in

    Sociology for Inequality Reduction. *Socius*, *7*, 1-30.

Domina, T., Penner, A., & Penner, E. (2017). Categorical Inequality: Schools as sorting

    machines. *Annual Review of Sociology*, *43*, 311-330.

Durkheim, E. (1933) [1893]. *The Division of Labor in Society*. Free Press.

Edelman, L. B., & Petterson, S. M. (1999). Symbols and Substance in Organizational Response

    to Civil Rights Law. *Research in Social Stratification and Mobility*, *17*, 107-138.

Fararo, T. J., & Doreian, P. (1998). The Theory of Solidarity: An agenda of problems. In *The*

    Problems of Solidarity: Theories and models (pp. 1-32). Gordon and Breach Publishers.

Fetchenhauer, D., Flache, A., Buunk, A. P., & Lindenberg, S. (Eds.). (2006). *Solidarity and Prosocial Behavior: An integration of sociological and psychological perspectives*. Springer Science & Business Media.

Fiske, S. T. (1998). Stereotyping, Prejudice, and Discrimination. In *The Handbook of Social Psychology* (Pp. 357-411). McGraw-Hill.

Fiske, S. T. 2010. Interpersonal Stratification: Status, power, and subordination. In *Handbook of Social Psychology* (Pp. 941-982). John Wiley & Sons Inc.

Foschi, M. (2000). Double Standards for Competence: Theory and research. *Annual Review of Sociology, 26*(1), 21-42.

Foschi, M. (2009). Gender, Performance Level, and Competence Standards in Task Groups. *Social Science Research*, *38*(2), 447-457.

Foschi, M., & Lapointe, V. (2002). On conditional hypotheses and gender as a status characteristic. *Social Psychology Quarterly*, 65(2), 146-162.

Friedkin, N. E. (2004). Social Cohesion. *Annual Review of Sociology, 30*, 409-425.

Gallagher, T. J., Gregory Jr, S. W., Bianchi, A. J., Hartung, P. J., & Harkness, S. (2005). Examining Medical Interview Asymmetry using the Expectation States Approach. *Social Psychology Quarterly*, *68*(3), 187-203.

Gerber, G. L. (2009). Status and the Gender Stereotyped Personality Traits: Toward an integration. *Sex Roles*, *61*(5-6), 297-316.

Ghezzi, S., & Mingione, E. (2007). Embeddedness, Path Dependency and Social Institutions: An economic sociology approach. *Current Sociology*, *55*(1), 11-23.

Giannopoulos, C., Conway, M., & Mendelson, M. (2005). The Gender of Status: The

  Laypersons' Perception of Status Groups Is Gender-Typed. *Sex Roles*, 53(11/12), 795-

  806.

Giles, H., & Coupland, N. (1991). *Language: Contexts and consequences*. Thomson

  Brooks/Cole Publishing Co.

Goffman, E. 1967. *Interaction Ritual: Essays on Face-to-Face Behavior.* Anchor Books.

Gould, R. V. (2002). "The Origins of Status Hierarchies: A formal theory and empirical

  test." *American Journal of Sociology, 107*(5), 1143-1178.

Gregory, S. W. (1983). A Quantitative Analysis of Temporal Symmetry in Microsocial

  Relations. *American Sociological Review, 48*(1), 129-135.

Gregory, S. W. (1986). Social Psychological Implications of Voice Frequency Correlations:

  Analyzing conversation partner adaption by computer. *Social Psychology Quarterly,*

  49(3), 237-246.

Gregory, S. W. (1994). Sounds of Power and Deference: Acoustic analysis of macro social

  constraints on micro interaction. *Sociological Perspectives, 37*(4), 497-526.

Gregory, S. W., & Gallagher, T., J. (2002). Spectral Analysis of Candidates' Nonverbal Vocal

  Communication: Predicting US presidential election outcomes. *Social*

  Psychology Quarterly, 65(3), 298-308.

Gregory, S. W., & Hoyt, B. R. (1982). Conversation partner mutual adaptation as demonstrated

  by Fourier series analysis. *Journal of Psycholinguistic Research*, *11*(1).

Gregory, S. W., Webster, S., & Huang, G. (1993). Voice Pitch and Amplitude Convergence as a

  Metric of Quality in Dyadic Interviews. *Language & Communication*, *13*(3), 195-217.

Gregory, S. W., & Kalkhoff, W. (2007). Analyzing Sequences of Interactive Voice Data using Fast Fourier Transform Analysis. *The Mathematical Sociologist, 11*(1), 4-8.

Gregory, S. W., Kalkhoff, W., Harkness, S. K., & Paull, J. L. (2009). Targeted High and Low Speech Frequency Bands to Right and Left Ears Respectively Improve Task Performance and Perceived Sociability in Dyadic Conversations. *Laterality*, *14*(4), 423-440.

Gurvitch, G. (1941). Mass, Community, Communion. *The Journal of Philosophy*, *38*(18), 485-496.

Gurvitch, G. (1942). *The Sociology of Law*. Transaction Publishers.

Hardin, G. (1968). The tragedy of the Commons: the population problem has no technical solution; it requires a fundamental extension in morality. S*cience*, *162*(3859), 1243-1248.

Hayward, J. E. S. (1959). Solidarity: The Social History of an Idea in Nineteenth Century France. *International Review of Social History*, *4*(2), 261-284.

Hechter, M. (1990). The Attainment of Solidarity in Intentional Communities. *Rationality and Society*, *2*(2), 142-155.

Heckathorn, D. D. (1996). The Dynamics and Dilemmas of Collective Action. *American Sociological Review*, 61(2), 250-277.

Henrich, J., & Gil-White, F. J. (2001). The Evolution of Prestige: Freely conferred deference as a mechanism for enhancing the benefits of cultural transmission. *Evolution and Human Behavior*, *22*(3), 165-196.

Heise, D. R. (1998). Conditions for Empathic Solidarity. In *The Problems of Solidarity: Theories and models* (pp. 197-211)*.* Gordon and Breach Publishers.

Hochschild, A. R. (2016). The Ecstatic Edge of Politics: Sociology and Donald Trump. *Contemporary Sociology*, *45*(6), 683-689.

Hogsbro, K., Pruijt, H., Pokrovsky, N., & Tsobanoglou, G. (2009). Sociological Practice and the Sociotechnics of Governance. In *The ISA Handbook in Contemporary Sociology,* (pp. 42-57). Sage Publications.

Hopcroft, R. L. (2006). Status Characteristics among Older Individuals: The diminished significance of gender. *The Sociological Quarterly*, *47*(2), 361-374.

Houser, J. A., & Lovaglia, M. J. (2002). Status, Emotion, and the Development of Solidarity in Stratified Task Groups. In *Advances in Group Processes* (Vol 19, pp. 109-137). Emerald Publishing Limited.

Hubbard, A. E., Ahern, J., Fleischer, N. L., Van der Laan, M., Satariano, S. A., Jewell, N., Bruckner, T. & Satariano, W. A. (2010). To GEE or not to GEE: Comparing population average and mixed models for estimating the associations between neighborhood risk factors and health. *Epidemiology*, 21(4), 467-474.

Kalkhoff, W., & Gregory, S. W. (2008). Beyond the Issues: Nonverbal vocal communication, power rituals, and "rope-a-dopes" in the 2008 presidential debates. *Current Research in Social Psychology, 14*(3), 39-51.

Kalkhoff, W., Dippong, J., & Gregory, S. W. (2011). The Biosociology of Solidarity. *Sociology Compass*, *5*(10), 936-948.

Kalkhoff, W., Thye, S. R., & Pollock, J. (2016). Developments in Neurosociology. *Sociology Compass*, *10*(3), 242-258.

Kalkhoff, W., Thye, S. R., & Gregory, S. W. (2017). Nonverbal Vocal Adaptation and Audience

    Perceptions of Dominance and Prestige. *Social Psychology Quarterly*, *80*(4), 342-354.

Kalkhoff, W., Dippong, J., Gibson, A., & Gregory, S. W. (2020). Society in Peril? How distance

    media communication could be undermining symbolic interaction. In *Identity and*

    Symbolic Interaction (pp. 317-338). Springer.

Kemper, T. D. (2011). *Status, Power and Ritual Interaction: A relational reading of Durkheim,*

    Goffman and Collins. Routledge.

Koski, J., Xie, H., & Olson, I. R. (2015). Understanding Social Hierarchies: The neural and

    psychological foundations of status perception. *Social Neuroscience 10*(5), 527-550.

Kroska, A. (2014). The Social Psychology of Gender Inequality. In *Handbook of the Social*

    Psychology of Inequality (Pp. 485-514). Springer.

Lagerlöf, N. P. (2003). Gender Equality and Long-Run Growth. *Journal of Economic Growth*, *8*,

    403-426.

Lawler, E. J. (2001). An Affect Theory of Social Exchange. *American Journal of Sociology*,

    107(2), 321-352.

Lawler, E. J. & Yoon, J. (1996). Commitment in Exchange Relations: Test of a theory of

    relational cohesion. *American Sociological Review, 61*(1), 89-108.

Lawler, E. J., Thye, S. R., & Yoon, J. (2014). Emotions and Group Ties in Social Exchange. In

    Handbook of the Sociology of Emotions (Vol. 2, pp. 77-101). Springer.

Leach, W. D., & Sabatier, P. A. (2005). To Trust an Adversary: Integrating rational and psychological models of collaborative policymaking. *American Political Science Review 99*(4), 491–503.

Liebowitz, D. J., & Zwingel, S. (2014). Gender Equality Oversimplified: Using CEDAW to counter the measurement obsession. *International Studies Review*, *16*(3), 362-389.

Lindenberg, S. (2000). It Takes Both Trust and Lack of Mistrust: The workings of cooperation and relational signaling in contractual relationships. *Journal of Management and Governance*, *4*, 11-33.

Lindenberg, S. (2014). Solidarity: Unpacking the social brain. In *Solidarity: Theory and practice* (pp. 30-54). Lexington Books.

Lowi. T. (1979). *The End of Liberalism.* Norton.

Lovaglia, M. J., Lucas, J. W., Rogalin, C. L., & Darwin, A. (2006). Power, Status, and Leadership in Diverse Organizations: From basic research to program development. In *Advances in Group Processes* (Vol. 23, pp. 183-206). Emerald Group Publishing Limited.

Lynas, M., Houlton, B. Z., & Perry, S. (2021). Greater than 99% Consensus on Human Caused Climate Change in the Peer-Reviewed Scientific Literature. *Environmental Research Letters*, *16*(11), 114005.

Magee, J. C., & Galinsky, A. D. (2008). Social Hierarchy: The self-reinforcing nature of power and status. *The Academy of Management Annals*, *2*(1), 351-398.

Mandel, H. (2009). Configurations of Gender Inequality: the consequences of ideology and

    public policy. *The British Journal of sociology*, *60*(4), 693-719.

Mannix, E. A., & Sauer, S. J. (2006). Status and Power in Organizational Group Research:

    Acknowledging the pervasiveness of hierarchy. In *Advances in Group Processes* (Vol.

    23, pp. 149-182). Emerald Group Publishing Limited.

Markovsky, B. (1998). Social Conceptions of Solidarity. In *The Problems of Solidarity: Theories*

    and models (pp. 343-372). Gordon and Breach Publishers.

Markovsky, B., Le Roy, F. S., & Berger, J. (1984). Do Status Interventions Persist? *American*

    Sociological Review, 49(3), 373-382.

Markovsky, B., & Lawler, E. J. (1994). A New Theory of Group Solidarity. In *Advances in*

    Group Processes (Vol. 11, pp. 113-137). JAI Press, Inc.

Marsh, K. L., Richardson, M. J., & Schmidt, R. C. (2009). Social connection through joint action

    and interpersonal coordination. *Topics in Cognitive Science*, *1*(2), 320-339.

Meacham, D., & Tava, F. (Forthcoming). The Algorithmic Disruption of Workplace Solidarity:

    Phenomenology and the future of work question". *Philosophy Today, 65*(3). Available at:

    https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3790499.

Meeker, B. F., & Weitzel-O'Neill, P. A. (1977). Sex Roles and Interpersonal Behavior in Task-

    Oriented Groups. *American Sociological Review*, 42(1), 91-105.

Mendell, M., & Alain, B. (2013). Evaluating the Formation of Enabling Public Policy for the

    Social and Solidarity Economy from a Comparative Perspective. In *The Effectiveness of*

Collaborative Processes or the Co-Construction of Public Policy. United Nations Research Institute for Social Development.

Merton, R. K. (1948). The Self-Fulfilling Prophecy. *The Antioch Review, 8*(2), 193-210.

Metz, K. H. (1999). Solidarity and History: Institutions and social concepts of solidarity in 19th century western Europe. In *Solidarity* (pp. 191-207). Kluwer Academic Publishers.

Moore, C. D., Dippong, J., & Rejtig, M. S. (2019). Leadership, Gender, and Vocal Dynamics in Small Groups. *Current Research in Social Psychology, 27*, 21-32.

Moors, A., & De Houwer, J. (2005). Automatic Processing of Dominance and Submissiveness. *Experimental Psychology*, *52*(4), 296-302.

Mueller, B. (2020). Why Public Policies Fail: Policymaking under complexity. *EconomiA*, *21*(2), 311-323.

Myaskovsky, L., Unikel, E., & Dew, M. A. (2005). Effects of Gender Diversity on Performance and Interpersonal Behavior in Small Work Groups. *Sex Roles*, *52*, 645-657.

Nisbet, R. A. (1943). The French Revolution and the Rise of Sociology in France. *American Journal of Sociology*, *49*(2), 156-164.

Olsen, M. (1965). *Logic of Collective Action: Public goods and the theory of groups.* Harvard University Press.

Ostrom, E. (1990). *Governing the Commons: The evolution of institutions for collective action*. Cambridge University Press.

Overall, J. E., & Tonidandel, S. (2004). Robustness of Generalized Estimating Equation (GEE) Tests of Significance Against Misspecification of the Error Structure Model. *Biometrical Journal: Journal of Mathematical Methods in Biosciences*, *46*(2), 203-213.

Pandey, S. K., Smith, A. E., Pandey, S., & Ojelabi, O. A. (2023). Reimagining Race and Gender in Public Administration and Public Policy: Insights from an interdisciplinary systematic review. *Public Administration Review*, *83*(1), 14-34.

Parsons, T. (1951). *The Social System.* The Free Press.

Parsons, T. & Bales, R. F., (2014). *Family Socialization and Interaction Processes*. Free Press.

Petersen, B., Stuart, D., & Gunderson, R. (2019). Reconceptualizing Climate Change Denial. *Human Ecology Review*, *25*(2), 117-142.

Phillips, D. J. (2005). Organizational Genealogies and the Persistence of Gender Inequality: The case of Silicon Valley law firms. *Administrative Science Quarterly*, *50*(3), 440-472.

Pugh, M. D., & Wahrman, R. (1983). Neutralizing Sexism in Mixed-Sex Groups: Do women have to be better than men? *American Journal of Sociology, 88*(4), 746-762.

Rashotte, L. S., & Webster, M. (2005). Gender Status Beliefs. *Social Science Research, 34*(3), 618-633.

Ridgeway, C. L. (1997). Interaction and the Conservation of Gender Inequality: Considering employment. *American Sociological Review, 62*(2), 218-235.

Ridgeway, C. L. (2007). Gender as a Group Process: Implications for the persistence of inequality. In *Social Psychology of Gender* (Vol. 24, pp. 311-333). Emerald Group Publishing Limited.

Ridgeway, C. L. (2014). Why Status Matters for Inequality. *American Sociological Review, 79*(1), 1-16.

Ridgeway, C. L. (2019). *Status: Why is it everywhere? Why does it matter?*. Russell Sage Foundation.

Ridgeway, C. L., & Balkwell, J. W. (1997). Group Processes and the Diffusion of Status Beliefs. *Social Psychology Quarterly, 60*(1), 14-31.

Ridgeway, C. L., & Erickson, K. G. (2000). Creating and Spreading Status Beliefs. *American Journal of Sociology, 106*(3), 579-615.

Ridgeway, C., & Johnson, C. (1990). What is the Relationship between Socioemotional Behavior and Status in Task Groups?. *American Journal of Sociology*, *95*(5), 1189-1212.

Ridgeway, C. L., & Nakagawa, S. (2014). Status. In *Handbook of the Social Psychology of Inequality* (pp. 3-25). Springer.

Ridgeway, C. L., Backor, K., Li, Y. E., Tinkler, J. E., & Erickson, K. G. (2009). How Easily Does a Social Difference become a Status Distinction? Gender matters. *American Sociological Review*, *74*(1), 44-62.

Rudman, L. A., & Phelan, J. E. (2007). Sex Differences, Sexism, and Sex: The social psychology of gender from past to present. In *Social Psychology of Gender* (Vol. 24, pp. 19-45). Emerald Group Publishing Limited.

Ryan, M. K., & Haslam, S. A. (2007). The Glass Cliff: Exploring the dynamics surrounding the appointment of women to precarious leadership positions. *Academy of Management Review*, *32*(2), 549-572.

Sabatier, P. (2007). Fostering the Development of Policy Theory. In *Theories of the Policy Process* (2nd edition, pp. 321-336). Westview Press.

Sadler, P., Ethier, N. Gunn, G. R., Duong, D., & Woody, E. (2009). Are we on the Same Wavelength? Interpersonal Complementarity as Shared Cyclical Patterns during Interactions. *Journal of Personality and Social Psychology* 97(6), 1005-1020.

Salmela, M. (2014). Collective Emotions as 'The Glue' of Group Solidarity. In *Solidarity: Theory and practice* (pp. 55-87). Lexington Books.

Sargent, A. C., Yavorsky, J. E., & Sandoval, R. G. (2021). Organizational Logic in Coworking Spaces: Inequality regimes in the new economy. *Gender & Society*, *35*(1), 5-31.

Schattschneider, E. E. (1960). *A Realist's View of Democracy in America.* Holt Rinehart & Winston.

Schneider, D. J. (2005). *The Psychology of Stereotyping*. Guilford Press.

Schneider, B. L., & Keesler, V. A. (2007). School Reform 2007: Transforming education into a scientific enterprise. *Annual Review of Sociology.*, *33*, 197-217.

Scott, J. C. (1998). *Seeing Like a State: How certain schemes to improve the human condition have failed.* Yale University Press.

Sechrist, G. B., & Stangor, C. (2001). Perceived Consensus Influences Intergroup Behavior and Stereotype Accessibility. *Journal of Personality and Social Psychology*, *80*(4), 645.

Shelly, R. K., & Webster, M. (1997). How Formal Status, Liking, and Ability Status Structure Interaction: Three theoretical principles and a test. *Sociological Perspectives, 40*(1), 81-107.

Skovertz, J. Solidarity, Social Structure, and Social Control. In *The Problem of Solidarity: Theories and models* (Pp. 373-402). Routledge.

Smith, C. (2003). *Moral, Believing Animals: Human personhood and culture*. Oxford Press.

Smith, K. B. & Larimer, C. W. (2009). *The Public Policy Theory Primer*. Westview Press.

Stone, D. (1988). *Policy Paradox and Political Reason.* Scott Foresman & Company.

Sullivan, H., & Skelcher, C. (2002). Understanding Collaboration. In *Working across Boundaries: Collaboration in public services* (pp. 35-55). Springer.

Tammivaara, J. S. (1982). The Effects of Task Structure on Beliefs about Competence and Participation in Small Groups. *Sociology of Education*, 55(4), 212-222.

Tava, F. (2023). Justice, Emotions, and Solidarity. *Critical Review of International Social and Political Philosophy*, *26*(1), 39-55.

Thébaud, S., & Halcomb, L. (2019). One Step Forward? Advances and setbacks on the path toward gender equality in families and work. *Sociology Compass*, *13*(6).

Thome, H. (1999). Solidarity: Theoretical perspectives for empirical research. In *Solidarity* (pp. 101-131). Kluwer Academic Publishers.

Thye, S. R., Vincent, A., Lawler, E. J., & Yoon, J. (2014). Relational Cohesion, Social Commitments, and Person-to-Group Ties: Twenty-five years of a theoretical research program. In *Advances in Group Processes* (Vol. 31, pp. 99-138). Emerald Publishing.

Tomaskovic-Devey, D., & Avent-Holt, D. (2019). *Relational Inequalities: An organizational approach*. Oxford University Press.

Turner, R. H. (1967). Types of Solidarity in the Reconstituting of Groups. *The Pacific Sociological Review 10*(2), 60-68.

Turner, J. H. (2001). Social Engineering: Is this really as bad as it sounds?. *Sociological Practice*, *3*, 99-120.

Turner, J. H. (2002). *Face to Face: Toward a sociological theory of interpersonal behavior*. Stanford University Press.

Turner, J. H. (2019). The More American Sociology Seeks to Become a Politically-Relevant Discipline, the More Irrelevant it Becomes to Solving Societal Problems. *The American Sociologist*, *50*(4), 456-487.

Turner, J. H. (2020). *On Human Nature: The biology and sociology of what made us human*. Routledge.

Turner, J. H., & Maryanski, A. (2012). The Biology and Neurology of Group Processes. In *Advances in Group Processes* (Vol. 29, pp. 1-37). Emerald Group Publishing Limited.

Turner, J. H., Maryanski, A., Petersen, A. K., & Geertz, A. W. (2017). *The Emergence and Evolution of Religion: By means of natural selection*. Routledge.

Vaillancourt, Y. (2009). Social Economy in the Co-Construction of Public Policy. *Annals of public and Cooperative Economics*, *80*(2), 275-313.

Van Kleef, G. A., & Cheng, J. T. (2020). Power, Status, and Hierarchy: Current trends and future challenges. *Current Opinion in Psychology* 33, v-xiv.

Vincent, A. (2015). *Status and the Development of Relational Cohesion* (Doctoral dissertation, University of South Carolina).

Wagner, D. G., & Berger, J. (1997). Gender and Interpersonal Task Behaviors: Status expectation accounts. *Sociological Perspectives*, *40*(1), 1-32.

Wagner, D. G., Ford, R. S., & Ford, T. W. (1986). Can Gender Inequalities be Reduced? *American Sociological Review, 51*(1), 47-61.

Walker, L. S. (2019). Controlling Status Effects of Gender. In *Advances in Group Processes* (Vol. 36, pp. 47-59). Emerald Publishing Limited.

Weber, M. (1968) [1922]. *Economy and Society*. Bedminster.

Webber, G. R., & Giuffre, P. (2019). Women's Relationships with Women at Work: Barriers to solidarity. *Sociology Compass*, *13*(6).

Webster, M., & Rashotte, L. S. (2009). Fixed Roles and Situated Actions. *Sex Roles*, *61*, 325-337.

Webster, M., & Walker, L. S. (2017). How Status Spreads. In *Advances in Group Processes* (Vol. 34, pp. 1-19). Emerald Publishing Limited.

Wong-Parodi, G., & Feygina, I. (2020). Understanding and Countering the Motivated Roots of Climate Change Denial. *Current Opinion in Environmental Sustainability*, *42*, 60-64.

Vial, A. C., Napier, J. L., & Brescoll, V. L. (2016). A Bed of Thorns: Female leaders and the self-reinforcing cycle of illegitimacy. *The Leadership Quarterly*, *27*(3), 400-414.

Voland, E. (1999). On the Nature of Solidarity. In *Solidarity* (pp. 157-172). Kluwer Publishers.

Yavorsky, J. E. (2019). Uneven Patterns of Inequality: An audit analysis of hiring-related practices by gendered and classed contexts. *Social Forces*, *98*(2), 461-492.

Yavorsky, J. E., Keister, L. A., Qian, Y., & Nau, M. (2019). Women in the One Percent: Gender
   dynamics in top income positions. *American Sociological Review*, *84*(1), 54-81.

Zeger, S. L., & Liang, K-Y. (1986). Longitudinal Data Analysis for Discrete and Continuous
   Outcomes. *Biometrics, 42*(1), 121-130.

Zeller, R. A., & Warnecke, R. B. (1973). The Utility of Intervening Constructs in Experiments.
   Sociological Methods & Research, *2*(1), 85-110.

Zerubavel, E. 1981. *Hidden Rhythms: Schedules and Calendars in Social Life*. University of
   California Press.

APPENDIX A: PROTOCOL OF STUDY

Hello, and welcome to the study!

Have you ever noticed that some people seem naturally better than others at solving problems and puzzles? Researchers have found that some people can more easily and naturally solve a variety of problems, even when they have never encountered a similar problem before. Social scientists call this ability Intuitive Problem Solving. The study that you are participating in today looks at how people use this ability to solve unfamiliar problems together.

We know quite a bit about how individuals use Intuitive Problem Solving when they are working alone, but we know less about how this ability affects decisions that people make together.

As I mentioned, we are interested in how individuals and groups use their Intuitive Problem Solving abilities. Exchanging information with others can often lead to more correct decisions than a single individual could make alone. We have observed that in many situations, such as when a doctor diagnoses an illness, individuals are called upon to make decisions that must be correct. In these situations, when a person is concerned only with the correctness of the decision, he or she will often gather all available advice and information from others.

In such "critical decision" situations, exchanging information with another, and considering another person's choices, will often lead to more correct answers than a single person could make working alone. We are primarily interested in how Intuitive Problem Solving affects this process. As such, we will measure your individual Intuitive Problem Solving ability, along with some other related abilities. Then we will ask you to work with a partner so we can see how the two of you solve problems together.

Slide 3:

The first thing we would like you to do today is to take two short tests that will allow us to see how well you perform at tasks that measure Intuitive Problem Solving and other related abilities. While you are taking these tests, your partner, who you will be working with in just a bit, is taking the exact same tests in another room.

The problems that we will ask you to solve are unique. You have probably never encountered anything like them in the "real" world. This makes it interesting, because it is difficult to predict beforehand how well people will do at these tasks. While you may have seen tests similar to the ones you are about to take, the particular tests we use today have been shown to be very accurate measures of Intuitive Problem Solving ability.

Slide 4:

To assess your Intuitive Problem Solving ability, you will complete two separate tests: Contrast Sensitivity and Meaning Insight ability.

Although Contrast Sensitivity and Meaning Insight are distinct from Intuitive Problem Solving, research strongly suggests that the three abilities may be closely related. That is,

people with high levels of Intuitive Problem Solving ability also tend to score well when they are later given tests of Contrast Sensitivity and/ or Meaning Insight.

Conversely, people who score poorly on Contrast Sensitivity or Meaning Insight tests tend to also score poorly on tests of Intuitive Problem Solving.

Slide 5:

One of the interesting things we know is that Intuitive Problem Solving, Contrast Sensitivity, and Meaning Insight are not related to such skills or abilities as reading ability, knowledge of foreign languages, or mathematical skills. Individuals with high mathematical or verbal skills may have low levels of these abilities; and those with low mathematical or verbal skills can have high levels of these abilities. Further, we know from multiple studies that these abilities are not related to such social characteristics as race and gender. Women and men, as well as people from all racial backgrounds, are equally likely to have high or low levels of Intuitive Problem Solving, Contrast Sensitivity, and Meaning Insight.

As stated before, social scientists are engaged in a wide-ranging set of studies to determine what factors influence how much Intuitive Problem Solving ability individuals may possess, as well as how people use this ability.

Slide 6:

At this time, we are going to test you and your partners separately to determine your individual levels of Contrast Sensitivity, and Meaning Insight. We will administer the the Contrast Sensitivity test, then the Meaning Insight test. The Intuitive Problem Solving

test consists of fifteen items, while the Contrast Sensitivity and Meaning Insight tests consist of 20 problems.

At this time, we are going to test you and your partner separately to determine your problem solving ability. Tests like this have been used widely and with considerable success in high schools, military organizations, and hospitals, and we are very confident that the test you will take distinguishes between people with different levels of problem solving ability.

On the next screen, you will receive specific instructions for the problem solving test. As mentioned, your partner is also taking this same test in another room at this time.

Slide 7:

Contrast Sensitivity Test Instructions

Now that you have completed the Intuitive Problem Solving test, we will move on the Contrast Sensitivity and Meaning Insight tests.

As stated earlier, each test will consist of 20 problems for you to solve. You will receive instructions before beginning each test.

To begin the Contrast Sensitivity Test, please click the continue button below.

Slide 8:

This test consists of a series of images that are black and white. The test requires you to decide if the image you are presented with consists of more black area or white area. The images contain nearly the same area of both black and white areas; however, there is a slight difference. For each image there is only one color making up the majority, and

therefore there is only one correct answer. Your task is to select the color which makes up the majority of the image.

Now let's look at a sample...

Slide 9:
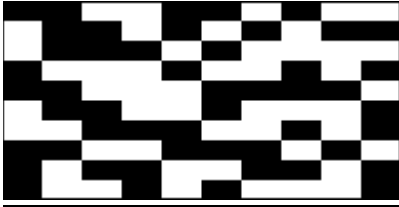
In the image above, there is either more black or more white. You should first look at the image and study it to try to decide which color constitutes a majority of the image.

Study the image for no more than 10 seconds (a timer will tell you when time is up). Then indicate the answer you think is correct by using the mouse to click the button that states the color you think accounts for more space in the image. That is, one of the buttons will say "Black," and the other "White". Click the button corresponding to the color you think makes up the majority. Then click the "Continue" button to go on to the next problem. When you're ready, please click "Try Practice Problem."

Slide 10:

(practice trial)

Slide 11:

All right, we are almost ready to begin the Contrast Sensitivity test. Next we will present you with a sequence of 20 test problems. The procedure for each problem will be as we

have just demonstrated. We will not tell you the correct answer after each problem; however, the computer system will record whether your decision was correct or incorrect.

Recall, your partner is also taking this test in the other study room.

Please click the "Continue" button below to begin the Contrast Sensitivity test.

Next 20 slides = CS Test…

After CS Task

Slide 1:

Meaning Insight Test Instructions

This last test consists of a series of well-known English words, and a series of words taken from a very primitive language studied by anthropologists. The test requires you to match one English word with one of two words taken from the primitive language. One and only one of the two non-English words has the same meaning as the English word. Your task is to select the non-English word which you think has the same meaning as the English word.

Now let's look at a sample...

Slide 2:

[insert MI example stim]

One of these two non-English words has the same meaning as the English word, "depart." You should first look at the English word and study it to try to associate whatever meanings it may call to mind. The English word "depart" typically means "to leave" or

"to go from." Then study the two non-English words. Sound them out to yourself: 'sum-yeh'...'lak-tun'. Then choose which of these words has the same meaning as the English word.

Study the words for no longer than 10 seconds (a timer will tell you when time is up). Then indicate the answer you think is correct by using the mouse to click the button, labeled A or B, next to the non-English word you think is associated with the English word. Then click the "Continue" button to go on to the next problem. When you're ready, please click "Try Practice Problem."

Slide 3:

(practice trial)

Slide 4:

All right, we are almost ready to begin the Meaning Insight test. Next we will present you with a sequence of 20 test problems. The procedure for each problem will be as we have just demonstrated. We will not tell you the correct answer after each problem; however, the computer system will record whether your decision was correct or incorrect.

Recall, your partner is also taking this test in the other study room. After you complete this test, you will receive feedback on your performance, as well as how your partner performed, for all three of the tests.

Please click the "Continue" button below to begin the Meaning Insight test.

Next 20 slides

Meaning Insight Items

1. **SHARP:** YUT-KEN YAN-TEK

2. **EDGE:** PA-LE SE-WEH

3. **STRANGER:** YE-WAH TA-WANA

4. **BLOOD:** LE-TEH YA-BIL

5. **BETRAY** HUK SAB

6. **GIRL:** SOR-AL SE-MOL

7. **INFANT:** BU-SAN BA-LAM

8. **COVER:** LA-BIN KU-MAN

9. **GROUND:** TA-BIN KA-YOB

10. **CANOE:** LA-WAN KA-NIB

11. **SISTER:** KUS-NE SA-KAN

12. **EVIL:** KAR-ANU YI-KITON

13. **PLENTY:** MAY-UK ME-MOT

14. **ELDER:** SE-KOL SA-KUB

15. **TODAY:** U-TAWAN SU-MAN

16. **BIG TREE:** KAS-KATO KUKO-MUT

17. **EYE:** KO-EL PUM

18. **CHIEF:** HAL-ME-TOK SMA-KA-LI

19. **WORK:** OM-TIV LAGO

20. **COMFORT:** KEL-IV KUS-LAH

After MI Task

Slide 1:

Congratulations! You've completed the three tests!

Please wait while your tests are being scored.

Please do not use the keyboard. As soon as the data are available from both you and your partner, the computer will prepare a report to present to you.

Please be patient and watch your screen for the results...

<u>Slide 2:</u>

You and your partner have now completed the Intuitive Problem Solving ability, Contrast Sensitivity, and Meaning Insight tests, and your answers have been scored by the computer system.

On the next screen you will be able to see how well you performed on the tests in comparison with your partner in today's study. You will also see how you scored compared to several standards, including the US Coast Guard's test standards. You will also see how you scored compared to other college students who have taken these tests. Your partner will also receive this information.

Click "Continue" to see the test results.

<u>Slide 3:</u>

<u>Manipulation…this is for Low ability self, hi ability partner. Reverse the scores for hi ability self, lo ability partner</u>

Contrast Sensitivity	Meaning Insight
Your Score: **13 out of 20**	Your Score: **11 out of 20**
Participant B's Score: **17 out of 20**	Participant B's Score: **18 out of 20**

Before going on, please take a moment to record this information about yourself and your partner on the "Problem Solving Test Record Sheet" we have provided you.

When you have finished recording the information, click the "Continue" button to proceed.

Slide 4:

U.S. Colleges and Universities National Test Standards

Score Range	Interpretation
16 -- 20	Superior
11 -- 15	Average
0 -- 10	Poor

Contrast Sensitivity National Average: **13**

Meaning Insight National Average: **12**

So that you can compare how well you and your partner did on the Contrast Sensitivity and Meaning Insight tests as individuals, we have prepared the "standards" shown above.

As you can see, a score of 11-15 correct out of 20 on the Contrast Sensitivity or Meaning Insight test is a common score among college students. More precisely, 13 correct out of 20 is the most typical score on the Contrast Sensitivity test, while 12 correct out of 20 is the most typical score on the Meaning Insight test.

Sixteen-20 correct out of 20 on either test is a very rare occurrence, and represents a "superior" individual performance. Zero-10 correct is also a rare occurrence and represents "poor" performance.

Slide 5:

Take a moment to reflect on you and your partner's scores on the three tests you completed.

As the national standards reveal, it is common for college students to score in the 46-55 range on Intuitive Problem Solving test. Similarly, college students tend to score in the 11-15 range on both the Contrast Sensitivity and Meaning Insight tests.

And as mentioned, it is very unusual for college students to score in the 71+ range on the Intuitive Problem Solving test or in the 16+ range on Contrast Sensitivity or Meaning Insight. That is, students with unusually high ability will score in these categories.

It is also very unusual as we stated for college students to score in the 0-25 range on the Intuitive Problem Solving test or in the 0-10 range on Contrast Sensitivity or Meaning Insight. Students with unusually low ability will score in these categories.

Finally, although a person might score a 26 or 27 on the Intuitive Problem Solving test or in the 8-10 range on the other tests by simply guessing, these represent "poor" scores. Results strongly suggest that most people score consistently better than they would if they were simply guessing.

Slide 6:

At this point, please signal to the research assistant that you are ready to move on to Phase II of today's study. While you are waiting, please do not use your keyboard or mouse.

Please Signal the Assistant

THE LIFEBOAT

The following people are on a sinking cruise ship that was headed to the Bahamas. As the ship is sinking, they spot an island and believe that they are close enough to reach it in a lifeboat. However, there are 12 people left alive, and the lifeboat, which drives itself, can only take one person to the island at a time. Those that go in the lifeboat sooner will probably make it to the island where they will try to survive until they are rescued. Those that are left the longest on the sinking cruise ship will likely go down with the ship and die. <u>You are the person who decides who should go first and last. You are given the responsibility of deciding who remains on the ship and who goes aboard the lifeboat.</u>

Part 1

- You have to decide the order in which you would save the people on the sinking ship. Rank order the members from 1 to 12.

Part 2

- You must come up with who you will save as a group. Rank order the members from 1 to 12. Most likely, people are going to have differing opinions, but you can only have one answer.

Self-Choice	Group-Choice	People/Description
		Lola – She is a 22-year-old go-go dancer who was on the boat to relax from her recent breast augmentation surgery. She suffers from clinical depression and has had 2 suicide attempts but none in at least a year.
		Mary Anne – She is a 45-year-old experienced nurse and single mother with 2 school aged children at home however they are living with her sister due to a Child Protective Services because she is an active alcoholic.
		Billy – He is a 16-year-old boy on probation for stealing money from old ladies. He is very charming, friendly and helpful when he wants to be but cannot be trusted.
		Dr. Storch – He is 55 in good health except he has a prosthetic leg from a car accident. He is very intelligent but likes to throw his knowledge in everyone's face as he is a bit arrogant.
		Sheena – She is 30 and is an ex- fitness instructor with an athletic build however she is HIV positive from a being raped one late night after working on the side as a cocktail waitress.
		Mickey – Mickey is in his mid-40's and is unemployed cocaine addict, however he is unusually strong from years of street fighting and working on the docks. Mickey has a disfigured face from the years of street fighting and his hygiene is not the best.
		Shane – Shane is a genius age 39 with a degree in cellular biology, making breakthroughs in his work on a cure for cancer but he is in a wheelchair and he comes across as selfish and rude.
		Tom – He is 41 and a hero from both gulf wars but he hears voices when he isn't medicated.
		Cindy – Cindy is a 70-year-old retired schoolteacher with 4 adult children and 15 grandchildren. She also is an expert chef and homemaker. Cindy is a chronic smoker who is awaiting test results from a test indicating she may have lung cancer.
		Barry – He is in his late 20's and has survival techniques from his years as a hired mercenary. He angers easily with a short temper but otherwise has excellent leadership skills when calm. Barry admitted to you that he killed someone in a fight in a 3rd world country many years ago and he never was caught and claims it was self-defense anyway
		Xavier– He is 18 and in good health, but he barely speaks English as he is from some strange country you've never heard of, but he is an aspiring musician with a newly signed record contract for playing the zither. He is a on an international terrorist watch list but swears he is being wrongly racially profiled.
		Fred – He is a 40-year-old husband and father of 4 and an expert in yachting and sea navigation and in good health but he has gotten on your nerves often because he is very opinionated. Fred is on this trip because he recently abandoned his sick wife and children and does not plan on ever seeing them again.

APPENDIX C: POST STUDY QUESTIONNAIRE

PART ONE: PARTNER IMPRESSIONS

Think about your partner for the Lifeboat discussion. We are interested in your "gut" IMPRESSIONS of him or her from THIS discussion. Based on these impressions and what they are telling you about what others may think of him or her, please CLICK ON THE CIRCLE that matches the extent to which you agree with each statement below. The questionnaire will not continue until you have answered each question on the page. Remember, your responses are CONFIDENTIAL and will not be associated with you personally.

 [*Unless otherwise stated, all partner impression questions will be measured using the following scale*]

Strong Disagree			Neutral			Strongly Agree
1	2	3	4	5	6	7

1. Others who interact with him (her) probably expect him (her) to always be successful. (Prestige (P))

2. Others who interact with him (her) probably do not enjoy hanging out with him (her). (P)

3. He (she) seems like a self-confident person. (Assertive (A)- not used in this study)

4. People who interact with him (her) probably do not want to be like him (her). (P)

5. Others who interact with him (her) probably do not like to do favors for him (her) or help him (her). (P)

6. He (she) seems like the kind of person who has flashes of unpredictable or erratic anger. (Dominance (D)

7. His (her) unique talents and abilities are probably recognized by others. (P)

8. He (she) seems like a person who would be held in high esteem by others. (P)

9. I would bet that he (she) has gained distinction and social prestige among others. (P)

10. He (she) seems like a person who would try to control others rather than permit them to control him (her). (D)

11. He (she) seems like an assertive person. (A)

12. Others who interact with him (her) probably understand that it is better to let him (her) have his (her) way. (D)

13. Others who interact with him (her) probably seek his (her) advice on a variety of matters. (P)

14. Some people who interact with him (her) are probably afraid of him (her). (D)

15. He (she) seems willing to use aggressive tactics to get his (her) way. (D)

16. He (she) probably does not enjoy having authority over other people. (D)

17. He (she) is probably considered an expert on some matters by others. (P)

18. He(she) had high status in the discussion. (Influence (I))

19. He (she) seems like a person who often tries to get his (her) own way regardless of what others may

want. (D)

20. People who interact with him (her) probably respect and admire him (her). (P)

21. He (she) led the discussion. (I)

22. He (she) seems like a person who likes to help others. (P)

23. Other people probably do not value his (her) opinion. (P)

24. He (she) does not have a forceful or dominant personality. (D)

25. He (she) probably dislikes giving orders. (D)

26. I paid attention to him (her). (I)

27. He (she) seems to be a person who enjoys having control over others. (D)

28. He (she) seems like a timid person. (A)

29. How would you rate *your partner* in terms of **how well you expect him or her to do in situations in general**? (Expectations)

        Low Ability   *High Ability*
          1   2   3   4   5   6   7   8   9

30. How would you rate *your partner* in terms of **intelligence**?

        Low Ability   *High Ability*
          1   2   3   4   5   6   7   8   9

31. How would you rate *your partner* in terms of **other things that count in this world**?

        Low Ability   *High Ability*
          1   2   3   4   5   6   7   8   9

32. How would you rate *your partner* in terms of the **ability to solve problems generally**?

PART TWO: SELF IMPRESSIONS

Think yourself. We are interested in your "gut" IMPRESSIONS of yourself RIGHT NOW. Based on these impressions and what they are telling you about what others may think you, please CLICK ON THE CIRCLE that matches the extent to which you agree with each statement below. The questionnaire will not continue until you have answered each question on the page. Remember, your responses are CONFIDENTIAL and will not be associated with you personally.

 [*Unless otherwise stated, all self impression questions will be measured using the following scale*]

Strong Disagree   Neutral   Strongly
Agree

1   2   3   4   5   6   7

33. Others always expect me to always be successful. (P)

34. Others do not enjoy hanging out with me (P)

35. I see myself as a self-confident person. (A)

36. People who interact with me probably do not want to be like me. (P)

37. Others do not like to do favors for me or help me (P)

38. I have flashes of unpredictable or erratic anger. (D)

39. My unique talents and abilities are recognized by others. (P)

40. I am held in high esteem by others. (P)

41. I have gained distinction and social prestige among others. (P)

42. I try to control others rather than permit them to control me. (D)

43. I see myself as an assertive person. (A)

44. Others understand that it is better to let me have my way. (D)

45. Others seek my advice on a variety of matters. (P)

46. Some people are afraid of me. (D)

47. I am willing to use aggressive tactics to get my way. (D)

48. I do not enjoy having authority over other people. (D)

49. I am considered an expert on some matters by others. (P)

50. I had high status in the discussion. (I)

51. I try to get my own way regardless of what others may want. (D)

52. People who interact with me respect and admire me. (P)

53. I led the discussion. (I)

54. I like to help others. (P)

55. Other people do not value my opinion. (P)

56. I do not have a forceful or dominant personality. (D)

57. I dislike giving orders. (D)

58. My partner paid attention to me. (I)

59. I enjoy having control over others. (D)

60. I see myself as a timid person. (A)

61. How would you rate *yourself* in terms of **how well you expect him or her to do in situations in general**? (Expectation)

      Low Ability   *High Ability*
         1   2   3   4   5   6   7   8   9

62. How would you rate *yourself* in terms of **intelligence**?

      Low Ability   *High Ability*
         1   2   3   4   5   6   7   8   9

63. How would you rate *yourself* in terms of **other things that count in this world**?

      Low Ability   *High Ability*
         1   2   3   4   5   6   7   8   9

64. How would you rate *yourself* in terms of the **ability to solve problems generally**?

      Low Ability   *High Ability*
         1   2   3   4   5   6   7   8   9

Think about the relationship you and your partner had in the negotiations. How would you describe the RELATIONSHIP on the following bipolar adjectives? (Relative Cohesion)

65.

Distant   *Close*
1   2   3   4   5   6   7   8   9

66.

Conflictual   *Cooperative*
1   2   3   4   5   6   7   8   9

67.

Fragmenting   *Integrating*
1   2   3   4   5   6   7   8   9

68.

Fragile   *Solid*
1   2   3   4   5   6   7   8   9

69.

Cohesive   *Divisive*
1   2   3   4   5   6   7   8   9

70.

Diverging   *Converging*
1   2   3   4   5   6   7   8   9

71.

Self-Oriented   *Team-Oriented*
1   2   3   4   5   6   7   8   9

PART THREE: TASK IMPRESSIONS & DEMOGRAPHICS

72. I had a hard time hearing my partner.

Strongly Disagree   *Strongly Agree*
1   2   3   4   5   6   7   8   9

73. I was very serious about finding the correct answers during the task that my partner and I completed today.

Strongly Disagree   *Strongly Agree*
1   2   3   4   5   6   7   8   9

74. I lost interest in participating in the task that I completed with my partner.

       Strongly Disagree   *Strongly Agree*
                  1   2   3   4   5   6   7   8   9

75. Reaching consensus/agreement with my partner was very important to me.

       Strongly Disagree   *Strongly Agree*
                  1   2   3   4   5   6   7   8   9

76. During task I paid careful attention to the input provided by my partner.

       Strongly Disagree   *Strongly Agree*
                  1   2   3   4   5   6   7   8   9

77. What is your age? _____

78. What is your race? (circle one)

      i.   *White, non-Hispanic*
      ii.   *White, Hispanic*
      iii.   *Black or African American*
      iv.   *Asian*
      v.   *Native American or American Indian*
      vi.   *Pacific Islander*
      vii.   *Multi-Ethnic*
      viii.   *Other*

79. What is your academic standing? (Circle One)
      i.   *Freshman*
      ii.   *Sophomore*
      iii.   *Junior*
      iv.   *Senior*
      v.   *Graduate Student*

80. What is your major? (Please write N/A if you are undecided.)