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Modeling Status Interventions with Affect Control Theory

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Abstract

Status interventions alter task group members' expectations for the value of each other's contributions. While research shows that status interventions increase the likelihood that a higher-status actor will accept influence from a lower-status actor, the process by which interventions unfold during interaction deserves theoretical attention. By conceiving status interventions as lines of action that carry cultural meaning, sociologists can use structural theories of symbolic interaction such as Affect Control Theory (ACT) to better understand them. One status intervention involves lower-status actors presenting themselves as group-motivated to counter expectations that lower-status actors are self-interested. An interaction simulator based in ACT, INTERACT, allows us to demonstrate how group-motivation alters impressions of lower-status actors from the perspective of a higher-status actor. Given that gender has been identified as a status characteristic that favors men in the U.S., we use INTERACT to model the effect of a woman presenting herself as group motivated on a man's impressions. Results suggest that qualitative insights from INTERACT can be used to further explore the relationship between status interventions and hierarchy in everyday life.

Keywords

status, emotion, group processes

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Introduction

We propose using Affect Control Theory and INTERACT to explore how a status intervention, self-presentation as group-motivated, alters the meanings that people attach to themselves and others in groups. Status interventions generally alter expectations that group members hold for one another, counteracting expectations held for members who possess socially disadvantaged characteristics (Cohen & Roper, 1972; Walker, 2019; Lovaglia & Houser, 1996). One such expectation is the belief that lower-status group members are motivated by self-interest more than by a desire to see the group succeed. Past research suggests that group members who present themselves as motivated to help the group succeed, rather than as self-interested, are afforded greater influence by other group members (Meeker & Weitzel-O'Neill, 1977, Ridgeway, 1982). Because status differences are related to different levels of influence within task groups (Ridgeway, 1984; Freeland & Hoey, 2018), expressions of group motivation have the potential to alter the status dynamics of a group. By countering expectations associated with lower status, status interventions offer the potential to address status disadvantages that emerge for members of historically disadvantaged groups when they work with others in task group settings.

While status interventions have been found to work in the laboratory, some suggest they could be employed as strategies for gaining status at work. Sandberg's (2013) call for women to "lean in" at work leverages research in social psychology to promote women's leadership. However, this approach has been criticized for over-generalizing such strategies (Chrobot-Mason et al., 2019). One area in need of more explanation is how women might manage ongoing interactions to deploy status interventions while countering cultural sentiments or actions that might undermine these strategies. Here, we use the Affect Control Theory simulator, *INTERACT,* to explore how status interventions change meanings associated with actors and their behaviors and open opportunities for status-disadvantaged group members to gain influence. Through bridging research on status interventions with insights from ACT, we hope to better understand the ongoing process by which status interventions change group member impressions and behavior. As others have proposed (Kroska & Cason, 2019; Freeland & Hoey, 2018; Dippong & Kalkhoff, 2015; Rogalin et al., 2007), ACT offers a theoretical complement to theories of the development and maintenance of social status because status is associated with specific sets of meanings attached to labels such as race, gender, or occupational categories.

To better understand the relationship between self-presentation strategies and status in everyday life, theoretical modeling and simulation offer valuable tools. Laboratory research establishes that a phenomenon occurs under specific sets of conditions. Then, theories that account for the complexity of more natural settings can enhance our understanding both of those conditions and the way the phenomenon unfolds as a cultural event. Hence, the meanings of a line of action involving a status intervention in everyday life can be established. Affect Control Theory provides a descriptive and formal theoretical model that allows researchers to investigate and predict the

subjective sentiments associated with differential status and the behavioral outcomes of sentiment formation (Freeland & Hoey, 2018; Dippong & Kalkhoff, 2015; Rogalin et al., 2007). We first review research and theory relating status to influence and how presenting oneself as group motivated can alter a lower-status group member's influence. We then turn to ACT to better understand the development of status interventions in everyday life, building on Dippong and Kalkhoff's (2015) suggestion that researchers can use ACT to better understand the unfolding process of status formation. We explore how expressions of group motivation affect the impressions of actors differentiated by a salient status characteristic, gender.

Status and Influence

Status characteristics and expectation states theories (hereafter SC-EST) explain how status valued categories, such as gender (1) give rise to performance expectations in task group settings, and (2) how these expectations order group members' contributions, positive evaluations, and influence over group decisions. SC-EST is a family of theories with shared concepts and a common method for theory development. While SC-EST is general in the sense that constituent theories apply to all groups within those theories' scope conditions, the majority of research in this tradition focuses on the development and maintenance of status hierarchies in task groups. Far from being a weakness, this focus has allowed the theoretical program of SC-EST research to amass a large body of supporting evidence for the status generalization process underlying many forms of discrimination.

While research spanning nearly 60 years has shown the validity of SC-EST propositions, moving beyond the laboratory into naturalistic settings is a valuable goal (Lucas, 2003). This may be done by careful focus on those naturally occurring groups that hew closely to the scope conditions of the theory, such as classrooms and workplaces (Cohen & Roper, 1972; Lovaglia, 2003), or by bridging SC-EST and complementary theories to expand the scope of investigations (Willer et al., 1997).

Status characteristics theory proposes that actors are influenced by fellow group members whose status characteristics are associated with greater competence, either on tasks in general or on a specific set of tasks, which are more or less relevant to the task being worked on by the group (Berger et al., 1977; Berger et al., 2014). Influence is defined as one actor "changing his mind after differing in opinion with another…" (Berger et al., 1972). Rejection of influence is operationalized as a participant's refusal to change their answer to a task when faced with the partner's disagreement on how to accomplish shared work. Evidence suggests that participants in task groups generalize performance expectations based on status characteristics to new settings, recreating and reinforcing existing status hierarchies found in the broader society (Berger et al., 2014). Strong evidence links performance expectations to status, which in turn leads to social influence. Kalkhoff et al. (2020) showed that self-reported expectations for partner performance were positively associated with publicly accepting the influence of a partner.

Ridgeway (1982) showed that the perceived motivations of group members contribute to their relative levels of influence. Building on Meeker & Weitzel-O'Neill (1977), Ridgeway (1982) proposes that group-motivated individuals are perceived as more valuable to the group, and so group members are more likely to consider their contributions than those of individuals perceived as self-interested. As a result, members of lower-status groups—generally expected to be self-interested—gain status and influence as a result of counteracting these expectations through the expression of group motivation.

Status interventions work because actors combine expectations associated with the salient traits, characteristics, or behaviors of fellow group members to determine the relative value of each members' contributions to the group (Markovsky et al., 1984). Research shows that both positively and negatively evaluated expectations are combined. Traits or behaviors associated with a partner's ability levels that are inconsistent with established expectations are particularly impactful on that partner's influence and ability to contribute to their group (Lovaglia & Houser, 1996; Lucas & Lovaglia, 1998; Walker et al., 2014). As new information about a partner is made available, including specific competencies, emotional expressions, or partner motivations, this information alters the relative value of that partner to the group. Further, these expectations become part of the situational definition that governs group member behavior going forward.

For the purposes of this paper, we conceive of status interventions as lines of action in which expressions of group motivation are interpreted by significant others in relation to a shared task. We propose that Affect Control Theory (ACT) can be used to better understand the unfolding process by which this status intervention affects how higher-status actors view lower-status actors. ACT has been used to frame research into the subjective sentiments associated with differential status (Freeland & Hoey, 2018; Rogalin et al., 2007) as well as the behavioral effects of actors holding these sentiments (Dippong & Kalkhoff, 2015). In conjunction with insights from SC-EST, we propose that ACT can be used to generate new questions while accounting for the relationship between gender, self-presentation, and status established in the laboratory.

Affect Control Theory

ACT is a structural theory of symbolic interaction. According to ACT (Heise, 1979; Smith-Lovin & Heise, 2016), social events are understandable as contexts filled with culturally shared meanings, negotiable through the use of labels actors attach to themselves and other elements of social situations, including other people. ACT explicitly proposes that social interaction unfold as actors negotiate situational changes to the meanings they associate with the actors, behaviors, objects, and settings that they encounter during interaction. ACT proposes that actors seek to maintain the meanings they bring into a social setting—termed fundamental sentiments—and those meanings that arise during interaction—termed transient impressions (Robinson & Smith-Lovin, 1992). In sum, ACT posits that cultural meanings are imported into interactions when actors use language to label the elements of the situations they encounter. The

interaction serves to maintain and potentially modify these meanings as actors negotiate the definition of the situation.

ACT includes a set of basic assumptions and propositions consistent with symbolic interactionism's perspective on language as a cultural tool for facilitating interaction. The theory formalizes the process by which cultural meanings, encoded in language, becomes a normative framework for social interaction. Its formal mathematical structure accounts for the meanings of labels used to identify actors, behaviors, objects, and settings. This allows the theory to predict how interactions will unfold in everyday life.

According to ACT, labels used to define social experiences combine in social situations to generate sentiments that inform an actor's impressions of "appropriate" behavioral options. For example, cultural notions of motherhood or teaching suggest a mother might *care for* her children or that a teacher will *instruct* students (MacKinnon, 1994). Cultural labels thus provide structure for meanings that arise in social situations. Given the importance of language and that an actor must define a situation in order to negotiate it, the theory includes several scope conditions:

1. Meanings emerge from lines of *directed* social action. Situations within the theory's scope involve actors engaged in culturally meaningful behaving toward a culturally meaningful object.
2. Observers of directed action are members of an *identified language culture.* This observer may be another person in the situation observing the line of action, or the person themselves considering their action. This preserves the symbolic interactionist assertion that actors develop a sense of self by considering themselves as objects while reflecting on their past behavior (Mead, 1934; Cooley, 1902).
3. The observer has labeled all elements of the situation involved in the line of action. It would not make a prediction about a person's response to a joke told in a language they cannot understand, or their response to the actions of a person of whom they were not aware.

Affect Control Theory (Heise, 1979) proposes that affective reactions to social situations are part of a process of meaning maintenance. The theory formalizes assumptions of symbolic interactionism, psycholinguistics, impression formation, and cybernetic models of perception to predict behavior in social situations (Robinson et al., 2006; Heise, 1979). According to ACT, members of language cultures hold fundamental sentiments, trans-situational meanings attached to labels they use to define their environment (Robinson et al., 2006). Affect Control Theory assumes that these fundamental sentiments are developed for all labeled people, behaviors, objects, and settings. Meanings are understood to have three dimensions: *evaluation* (how good or bad something is), *potency* (how powerful or not powerful something is), and *activity* (how active or inactive something is)—dimensions found by Osgood et al. (1957) to capture meanings attached to elements of social life across cultures. Cross-cultural

ACT studies use surveys which ask people to rate words from their own culture on these dimensions to form dictionaries of EPA profiles used to predict behavior.

Relationship of Status to Evaluation, Potency, and Activity

MacKinnon (1994) proposes that EPA dimensions reflect people's need to establish positive social identities or status, feelings of power or control, and the need for stimulation and arousal. When people engage in interaction, meanings attached to people, behaviors, and settings can change, creating transient, situation-specific impressions. The difference between transient impressions and fundamental sentiments is referred to as deflection. The theory incorporates the concept of a perceptual control system (Powers, 1973) where deflection results in emotional experiences that prompt either culturally appropriate behavioral adjustment or situational redefinition. Mackinnon's development of ACT suggests status and power are represented by the dimensions of evaluation and potency, respectively. Rogalin et al. (2007) investigated the relationship between status, power, and the EPA profiles for various occupations, finding that evaluation ratings significantly predicted an occupation's perceived power and status, and potency predicted the perceived power of occupations. Activity remained elusive. Heise (1987) and Kemper and Collins (1990) proposed that activity represents expressivity and would be negatively associated with power and status, a proposition receiving minimal support in Rogalin et al. (2007).

Dippong and Kalkhoff (2015) also investigated the relationship between affective impressions and the performance expectations underlying status structures. Using survey and an experiment, they showed that all three dimensions of a person's EPA profile were positively associated with performance expectations formed for that actor. This is consistent with the notion that high-status actors are generally more positively evaluated and liked (Kemper & Collins, 1990), that high-status actors enjoy more opportunities for legitimate power use (Berger et al., 1998) and that higher-status actors are more likely to be assertive and make active contributions to their groups. Interestingly, Dippong and Kalkhoff (2015) found that the evaluation dimension was the most predictive of performance expectations prior to interaction, but that potency was more predictive of performance expectations following interaction. They proposed that interaction "renders power differences more affectively and cognitively salient." This makes sense if the unfolding interaction leads to the creation of a stable and mutually accepted status hierarchy in which the relative power associated with differences in status becomes apparent. Finally, the authors show that use of the ACT simulator, *INTERACT,* makes possible models for predicting the ways that deference can maintain status structures. They showed that patterns of deference between status equals, while associated with negative affect, are likely to maintain equal status relations. This complements the argument by Scheff (1988) that the reciprocation of deference allows for the mutual management of shame in social encounters.

Kroska and Cason (2019) show that the gendered meanings women face in the workplace could make it more difficult for them to negotiate leadership roles. Using

ACT's INTERACT simulator, they analyzed 520 events in which a man or woman executive engaged in a behavior toward an object, finding that gender-deviant actions had more negative impacts on predicted perceptions of women than men when engaging in behaviors commonly associated with leadership, such as confronting an employee. We build on the approach of Kroska and Cason (2019) using insights from Dippong and Kalkhoff (2015) to show the value of modeling status interventions using INTERACT.

Changing Impressions: Exploring Status Interventions Using ACT

Ridgeway (1982) found that women who presented themselves as interested in group success were able to overcome expectations that lower-status group members are self-interested. Members of the research team acted as partners in task groups exhibiting either a group-motivated or self-oriented manner. Group-motivated partners expressed their contributions in a cooperative, non-confrontational, friendly manner, saying things like "What's most important is that the group pick the best answer" (Ridgeway, 1982: 81). Self-oriented partners expressed themselves in an emotionally distant, self-confident manner, and were "somewhat critical of others" while making it clear they were interested in earning points for themselves rather than for the group. Ridgeway's protocol for manipulating group-motivation/self-orientation was designed specifically to avoid conflating group-motivated action with conformity, an issue with some earlier studies (i.e., Hollander, 1960). When faced with contributions made by members who presented themselves as group-motivated, other group members were more willing to consider the contributions of women to their groups.

We propose that ACT offers a valuable tool for understanding status interventions, such as members of socially disadvantaged engaging in group-motivated action. Using *INTERACT* to simulate interaction between higher and lower status actors can allow us to assess the ways that meanings associated with these actors may change in response to status interventions. Based on research linking EPA dimensions to status, we explore how evaluation, potency, and activity levels for actors that engage in group-motivated action change relative to those of a higher-status actor and relative to fundamental sentiments held for actors belonging to lower-status social groups. Further, we explore how these lines of action might unfold, showing the value of ACT for developing qualitative predictions for how situations involving self-presentation strategies will unfold in everyday life.

To simulate status differences, we use gender. Research shows that gender operates as a status characteristic in the U.S., where data were collected for the INTERACT simulator. SC-EST research finds that women are generally viewed as less capable than men across task settings (Cohen & Roper, 1972; Berger et al., 1980; Ridgeway, 1982; Ridgeway & Berger, 1986; Carli et al., 1995; Kalkhoff et al., 2008), and that this status disadvantage is correlated with reported perceptions of ability (Zeller & Warnecke, 1973; Kalkhoff et al., 2020). We acknowledge that gender, while an established status

characteristic, is not just a status characteristic (Ridgeway, 2009). Meanings associated with gender differ by culture and situation; hence we do not expect men to be rated uniformly higher than women on EPA dimensions. Rather, we expect that INTERACT can capture changes in EPA dimensions for a woman acting in group-motivated manner if it adequately captures the cultural meanings that result from changes in status relations observed in the laboratory.

Our interest is whether our simulations based on the survey data in INTERACT allows us to predict and qualitatively examine changes to the relationship between a man and woman when the woman is viewed as either selfish or group motivated. Using an English language dictionary that includes meanings associated with established status characteristics, we show how a status intervention known to reduce status-based inequalities in task groups—the expression of group-motivated behavior—results in adjustment to the meanings associated with status valued elements and dimensions of subjective meaning in such situations. Further, based on the results of these simulations, we discuss how ACT opens doors to future research into the ways that meanings associated with different kinds of social settings might affect the identities and expectations of actors in those settings.

Methods

INTERACT (Francis & Heise, 2006; MacKinnon & Heise, 2010), a web-based computer simulator for predicting behavior in interaction, was used to generate our simulation data. The data used in this study were from the 2015 U.S. Combined Surveyor Dictionary. A sample of 1742 respondents rated 929 identities, 814 behaviors, and 660 modifiers (emotional dispositions), on EPA dimensions. These ratings were on scales from − 4.0 to + 4.0, where 0 is considered to be neutral on each dimension[1]. Simulations were run varying the gender identity of interaction partners (man/woman), according to empirical work in status characteristics theory showing gender to act as a status characteristic (Berger et al., 1972; Pugh & Wahrman, 1983; Ridgeway, 1982; Kalkhoff et al., 2008). These simulations predicted the EPA profiles of actors with different prestige levels when a lower-status actor is viewed as group motivated and engaged in various behaviors likely to occur in task groups. We focus on the perspective of a higher-status actor to explore how the man's impressions are altered as a result of a status intervention.

Simulating Effects of Group Motivation

A status intervention suggests a line of action that alters the fundamental sentiments associated with a lower-status actor. To be a status intervention, changing sentiments must make it more likely that contributions of the lower-status actor will be considered. Group-motivated action works to alter the assumption that a lower-status actor is selfish or self-interested. To illustrate the effect of group-motivated behavior, it is useful to explore differences in how a higher-status actor perceives the actions of a lower-status

actor when the lower-status actor is viewed as more or less group motivated. If a higher-status actor experiences noticeable deflection (above 8.0) after interaction with a lower-status actor, they are likely to engage in behavior to reduce deflection and reinforce fundamental sentiments (i.e., preserve status). Group motivation on the part of a lower-status actor would be predicted to make competence by a lower-status actor less unexpected, and so less likely to produce deflection for the higher-status actor.

To vary the group motivation of a lower-status actor, we assigned a woman one of two modifiers from the INTERACT dictionary. Group motivation was represented by the modifier *team-spirited,* found in the 2015 Combined U.S. Surveyor data. Selfishness was represented by the modifier *selfish.* We then ran simulations with either a *team-spirited* or *selfish* woman engaged in behaviors suggesting competence but not dominance or submissiveness. These were chosen by exploring behaviors in INTERACT advanced functions. Example behaviors included *educate, inform, engage, and instruct*.

Here, we discuss the case where the competent man was *educated* by either a *selfish* or *team-spirited* woman[2]. In our simulations, men were viewed by both the woman and man as *competent* using modifiers available in INTERACT. The fundamental sentiments for a *competent* man were E = 1.48, P = 2.08, A = .54, suggesting that the competent man views himself as fairly good, quite powerful, and somewhat active. Fundamental sentiments for a *selfish* woman, from the perspective of the man, are E = −1.86, P = .59, A = .53. Fundamental sentiments for the *team-spirited* woman are E = 2.10, P = 1.30, A = 1.44. This shows that a man views a *team-spirited* woman as more "good", more "powerful", and more "active" than a *selfish* woman. Following from Dippong and Kalkhoff (2015), this EPA profile suggests that a *team-spirited* woman would have higher status relative to a *selfish* woman during interaction.

Key differences emerge in the experiences of a man when *educated* by either a *selfish* or *team-spirited* woman. A *competent* man experiences approximately 66.2% more deflection when *educated* by a woman viewed as *selfish* (deflection = 14.2) rather than a woman viewed as *team-spirited* (deflection = 4.8). The woman's EPA profile—from the man's perspective—increases on the *evaluation* and *potency* dimensions relative to the fundamental sentiments for a woman in both simulations. However, the simulation predicts that a man *educated* by a *selfish* woman is more likely to engage in powerful behaviors that are not very "good" or "active", including supervi*se, exonerate*, and *undress*. Alternatively, a man *educated* by a *team-spirited* woman is predicted to engage in behaviors that are quite "good" as well as "powerful"; he may *lead*, *negotiate with*, *compliment*, or *defend* the woman. Low deflection suggests it is unlikely he would act to reinforce his status by exhibiting dominance. In short, being perceived as group motivated alters the fundamental sentiments for a woman such that a competent action such as *educate* causes little deflection for the man. Additional simulations using other types of competent action were also run (see Supplemental Material). Results of these simulations are consistent with those presented here. Across all simulations, we find that the man's self-evaluation is much more "good" when

interacting with the *team-spirited* woman than with the *selfish* woman, and deflection is considerably lower.

Simulating Lines of Action that Create Opportunities for Influence

How might lines of action develop as lower-status actors present themselves as group motivated, and how do these lines of action differ from those likely when they are perceived as selfish? To further explore the process by which perceptions of group motivation might affect lines of action, we extended the simulation using predicted behaviors on the part of both the man and woman after the woman behaves in a competent manner. Analysis of a line of action follows the following pattern: woman's display of competence→man's behavioral response→woman's behavioral response→man's labels for the woman (see Figure 1)[3]. We explore the perspective of the man at the end of this line of action, as a status intervention would be expected to result in labels for the woman suggesting higher status relative to fundamental sentiments for a woman. However, we also consider the perspective of the woman when faced with the man's attempts to minimize deflection. Again, we use *educate* as the example of a competent action by the woman.

When a *selfish* woman *educates* a *competent* man, INTERACT predicts that he will *supervise* her. Doing so reduces his deflection (8.0). Among the object behaviors he expects of the woman are *dispute*, *disagree with*, or *lecture*. We explored what happens, from the man's perspective, when the woman *disagrees with* him. Noticeable deflection

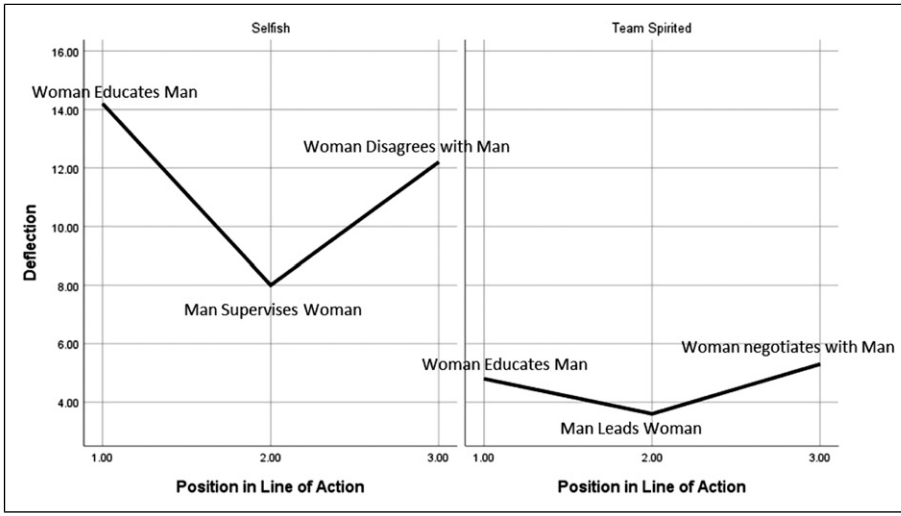

Figure 1. Changes in a Man's Deflection during Interaction with a "Selfish" versus "Team-Spirited" Woman.

results (12.2). INTERACT predicts the man will view the woman as *currying favor* and as a *childish kook*. The only action that falls within range for reducing his deflection is to *exonerate* her—suggesting he views her actions as transgressive or deviant. When he does this, INTERACT finds no labels fit the profile of the woman (1.35, −1.46, .95). However, INTERACT predicts he will label himself as a *guy*, *hunk*, *heel*, or *man.* This line of action has allowed him to preserve fundamental sentiments related to male gender identity.

Outcomes differ when a *competent* man is educated by a *team-spirited* woman. Deflection is low (4.8). INTERACT predicts the man will *lead* rather than *supervise. Leading* is rated significantly higher on the evaluation dimension and reduces his deflection to 3.6. He is predicted to label himself as a *partner*. Further, INTERACT predicts he will feel the emotion *charmed*, while applying the label *sidekick* to the woman, who he expects to be *acquiescent*. However, we find among her appropriate behaviors *negotiate with,* suggesting that she need not acquiesce to be viewed as acting appropriately. When we simulated her *negotiating with* the man, he experiences a slight increase in deflection (5.3) and is predicted to label her as a *pal* or *girl* who is *fun-loving* or *cheerful*. INTERACT predicts his behavior will be highly positive and powerful; they include *protect*, *compliment*, *aid*, and *support*. INTERACT also predicts that he will apply the label "sidekick" to himself. However, when he does *compliment* or *protect*, this results in his viewing *her* as a *cleaning woman* or *sidekic*k—neither of which suggest she gains status.

From the perspective of a *team-spirited* woman, his *complimenting* her following negotiation results in noticeable deflection (8.1), and the appropriate action is for her to *defend* him. When she does this, he views her in extremely positive terms (3.45, .99, 1.34), for which no label is available. While she is viewed as more "good" than the fundamental sentiments for a *team-spirited* woman, her ratings on both potency and activity are somewhat lower. It is unclear whether this line of action would have bolstered her status. Perhaps she wishes to *disagree with* following his compliment, as might happen in the course of a work discussion. Given that this behavior is unexpected following his compliment, it causes him significant deflection (12.5), and INTERACT predicts he will label her as a *broad* or *kook*. How can a woman counter this response? We found that if the woman subsequently engages in an unexpected, very "good" and "powerful" action by *reassuring* him, his deflection is reduced, and he labels her as a *companion*. While this label is not very active (A = .36), she gains considerably on evaluation (E = 3.38) and potency (P = 2.12) relative to the fundamental sentiments for a *team-spirited* woman, corresponding to an increase in status over the course of this interaction in line with past research[4]. However, if a woman must continually "re-assure" men with whom they disagree, gendered meanings are likely to be preserved that over time could relegate the woman to the role of *pal* or *sidekick*. If actions that manage the man's deflections maintain fundamental gender differences, then competent actions by women, even when perceived as group-motivated, may not persist without reinforcement or alter expectations for women in general.

Taken together, these simulations suggest three things: (1) Women viewed as group-motivated generate less deflection for men when acting in competent ways. (2) Men who perceive women as selfish are likely to act in powerful ways that reinforce their status. (3) Women may gain status by appearing group motivated. Again, however, we note that women would need to remain cognizant of a man's attempts to diminish their status, and strategically deploying actions like "reassure" to manage the man's transient impressions. These simulations show the value of developing mathematically rigorous theoretical models that can predict both how actor characteristics can shape outcomes of interaction as well as qualitative insights regarding how interactions unfold.

Discussion and Conclusion

ACT and INTERACT offer tools for better understanding the process by which status interventions impact status in everyday life. By using INTERACT to model status interventions, we can make predictions for how interventions would alter meanings for actors in natural settings that are like those studied in SC-EST research. Our simulations show that group-motivated action does indeed change EPA dimensions in ways that would suggest a change in the performance expectations held for actors. Simulations also provide insight into the cultural meanings that follow from high-status actors negotiating changes to their impressions of lower-status actors through several rounds of interaction. By accounting for the likely differential meanings, these actors attribute to self and other in a situation where a lower-status actor seeks to change the mind of a higher-status actor, INTERACT shows us how the anticipated impressions of actors might prompt cooperation and alter the impressions of lower-status actors. ACT offers a powerful tool for understanding how actors anticipate the meanings of their actions will be received, and how they can employ self-presentation strategies of deference to manage both their own and others' impressions.

Importantly, we note that expressing group-motivation does *not* completely alter meanings associated with being a woman, even when it may offer women opportunities for greater influence by changing men's impressions. In fact, INTERACT predicts that men's responses to competent actions from a *team-spirited* woman still leave him options for casting her in a subordinate identity. For instance, if a man compliments a woman who he has labeled as a *pal* but she *disagrees with* his compliment, noticeable deflection is predicted for the man. INTERACT predicts that, to reduce his deflection, she will have to *reassure* him. Otherwise, he is predicted to label her a *kook* or *broad*, which one might reasonably infer would result in a man dismissing the woman's contributions. This pattern of results suggests one way that cultural meanings associated with gender may contribute to the resilience of status hierarchies, net of the effects of interventions that alter perceptions associated with women's status. Given the limited cultural toolkit that other group members may have for labeling "likeable" women, attempts to make sense of women's group-motivated actions may inadvertently cast those women into lower-status or supporting roles even while their contributions gain value. Her attempts to avoid this might run the risk of undermining the

gains she has made in terms of increasing her value to the group. Further research is needed to better understand how cultural stereotypes associated with specific socially disadvantaged groups contribute to perceptions of self-presentation strategies used by members of these groups.

Research bridging SC-EST and ACT has promise for addressing the cultural barriers to the success of workers from socially disadvantaged groups. While the simulations here showed that women may be able to alter impressions of their motives in ways that offer them more opportunities and influence, we might also explore whether women who express group motivation are able to engage in more leader-like actions such as *direct* or *command*. Additionally, while Ridgeway's (1982) paper used gender as the salient status characteristic, she explicitly mentions other characteristics such as race. Developing the simulator to explore how the meanings attached to multiple identities, such as gender, race, and occupation, affect interaction, could allow further insights into the impression formation that occurs during the status generalization process beyond the development of performance expectations. This paper also follows the suggestion of SC-EST researchers to explore how status interventions may operate in naturally occurring settings (Walker, 2019). While we focus on ways that an actor's expressed attributes such as group motivation may alter the impressions of their partners, future simulations could also investigate how changes to the perceived competence or emotional expressivity of a partner do the same.

There are several limitations to our demonstration. First, INTERACT is only capable of predicting actions that map onto EPA profiles for labels already in an existing dictionary. These labels must be continually generated, both to ensure that the breadth of actions available to actors is considered, and to adjust meanings for changes that might occur over time as society changes. Thus, the meaning of "Woman" in 2020, having possibly changed due to cultural shifts linked to the "MeToo" movement, may carry different connotations in an updated dictionary of EPA profiles. Luckily, ACT researchers have developed tools to gather these types of data and continue to expand the pool of culturally meaningful labels. While our qualitative interpretation of these simulations represents culturally appropriate responses of actors, they do not represent the only possible responses or even cover the range of possible responses.

Another limitation of data-dependent simulation activity is that it may paper over within-culture differences in how a specific setting is defined. Sub-cultural and contested meanings may result in vastly different interactions than those predicted by assuming a dominant cultural narrative. New advances, such as BayesACT and its associated simulations, allow within-culture variation to be modeled to identify situations where such variation operates to affect interactions (Hoey et al., 2016).

Finally, we note that simulation is a form of theoretical activity (Szmatka et al., 2002). Our goal here is not to assert that group-motivated action will always result in changes to status relations—but that such changes are possible given the meanings assigned to these actions in our culture. Further, it is important to note that we limited our simulations to a specific setting—a business meeting. This allowed us to assess whether INTERACT could offer insight into the meanings that unfold for actors in

situations like those studied by Ridgeway (1982). It falls to future research to uncover lines of action related to status interventions in natural settings and judge how well the meanings of those events conform to the qualitative meanings predicted by INTERACT.

As noted, future research could engage in qualitative analysis of everyday situations, documenting encounters within institutions and specific settings that hew closely to those defined in simulation. For instance, women in business might be instructed on how to engage in group-motivated actions, and then observed in interactions with others in an actual business meeting setting. Using video and audio data, researchers could code expressions of interaction partners, and the participants themselves could provide data on the modifiers and labels they applied to themselves, each other, and their behaviors. Lines of action could them be mapped over the course of the meeting to see whether the strategies predicted by INTERACT for minimizing deflection for actors are followed. This type of research could identify barriers to the deployment of status intervention strategies faced by women in naturally occurring situations.

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Notes

1. Please see http://affectcontroltheory.org///usa-combined-surveyor-dictionary-2015/ for more information on data.
2. Findings were comparable when using the term "unselfish" found in the U.S. Combined Surveyor (2015).
3. We wish to thank an anonymous reviewer for providing a template for this figure.
4. An additional simulation was run where the woman consistently disagreed with the man after he attempted to "lead" her. While deflection increased after every disagreement, the deployment of "reassurance" by the woman reduced deflection considerably and resulted in his predicted use of the "companion" label. This simulation and INTERACT report are in the Web Supplemental Material.

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