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Unequal and Unfair: Free Riding in One-Shot Interactions

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Unequal and Unfair:
Free Riding in One-Shot Interactions

A Thesis

Submitted to the Graduate Faculty of the
University of New Orleans
in partial fulfillment of the
requirements for the degree of

Master of Arts
in
Sociology

By

Mary Kathryn McDougal

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Abstract

According to social psychologists, we as a species are inequity averse. We prefer conditions that foster fairness and reject injustice against common good. At the same time, however, unequal power and status hierarchies color almost every aspect of our lives. Advantages are distributed asymmetrically based on hierarchical status processes. Life, in other words, is systematically unfair in addition to being populated by free riders. Are the outcomes of potential free riders correlated with status as well? Does status affect the individual's ability to successfully free ride? Are higher status actors typically granted a greater degree of social leniency than lower status actors? Are they less likely to be marked as free riders? I conducted a simple vignette study to in which participants were presented with a hypothetical, one-shot interaction, involving a collectively oriented, task in order to investigate the relationship between status and free riding.

Keywords: status; free riding; group processes; gender; public goods; vignettes

Introduction

“Cultural beliefs about social categories at the macro level impact behavior and evaluation at the individual level, which act to reproduce status structures that are consistent with pre-existing macro-level beliefs. Status structures in groups can be thought of as the building blocks of more macro-level structural inequalities in society.” (Correll and Ridgeway 2003:48)

The logic of free riding stands in stark contrast with that of collective action. In order to generate a successful social movement, the number of free riders must be limited. A free rider is one who intentionally chooses to opt out of participation and fails to contribute to the group but retains the benefits that derive from the cooperation of the group. The problem with free riders is that they lead to the development of fear within the mind of the collective that other individuals are profiting for free. Such a belief often leads to reductions in the contributions of other participants and can thwart the development of collective action.

Social scientists from a number of fields suggest that we as a species prefer conditions that foster fairness and choose to reject injustice for the sake of the common good (Sprecher 1992; Nichols 2009; McAuliffe et. al 2013). We are averse to inequity and therefore to the notion of free riding. Without these aversions, it would be much harder to maintain cooperation and engage in collective action. Inequity averse though we may be, unequal power and status hierarchies continue to color almost every aspect of our lives. Some people, it seems, always come out on top while the rest fall somewhere below. Life, in other words, is not fair.

The link between inequality and differential distributions of power and status is undeniable. Status impacts individual action opportunities, performance outputs, reward outcomes, and interpersonal influence. Consciously and/or unconsciously, we generate expectations for social encounters based upon status indicators (Lawler, Ridgeway, and Markovsky 1993). The categorizations we use to make sense out of the chaos of daily life are often laden with stereotypical assumptions and hierarchically ordered status beliefs. Prior investigations into the effect of status on collective action have focused on how status can increase cooperation by serving as an incentive or reward for participation (Simpson et. al 2012; Eckel et. al 2010). For the purpose of this research, however, I want to investigate how status affects an individual's ability to successfully free ride. By uncovering details about free riding, we can learn to intermediate social inequalities and enhance engagement in collective action. I posit that higher status actors are generally granted a greater degree of social leniency and are therefore less likely to be labeled as free riders than their lower status counterparts.

Social scientists from a variety of fields have contributed to the broader theoretical discussion of status (Love and Davis 2014; Jules and McQuinston 2013; Simpson et. al 2012; Berger and Webster 2006; Correll and Ridgeway 2003; Martin and Sell 1985). For the purpose of this paper, however, I will analyze the subject from a sociological social psychological standpoint. This study examines specific theories related to status as well as the ways in which those theories have been tested and applied. I begin with an overview of the primary body of social psychological literature on status and a few other, tangentially related, theories and then indicate how this research adds to and extends the literature on Expectation States Theory. I then outline a number of theories that serve as the foundation of the current discussion on free riding including game theory, rational choice theory, and affect control theory and point to a gap in the literature that this research attempts to fill.

Literature Review

Expectations States Theory

Expectation States Theory (EST) is a theoretical research program, dating back to the early 1950s, concerned with the combination, sources, maintenance, and consequences of social expectations. It incorporates a body of interrelated theories as well as research concerned with testing and applying those theories (Berger and Webster 2006). EST focuses on the way in which cultural beliefs about status characteristics affect evaluations of competence, performance expectations, interpersonal interactions, and status rewards. It attempts to explain how status hierarchies emerge within collectively oriented groups (Correll and Ridgeway 2003). The generality of its principles and the broad relevance of its propositions regarding status make it applicable to numerous political, economic, and social issues.

Status Characteristics Theory

Status Characteristics Theory is a branch of EST that was initially formulated in the mid-to-late 1960s to account for the emergence of performance expectations in situations in which the race, class, and/or gender of actors differ from one another. It looks specifically at the ways in which status characteristics affect performance expectations. Status characteristics refer to social categories that are labeled and bind certain behavioral assumptions, or performance expectations, to groups of individuals. Performance expectations indicate our judgments about an individual's ability to contribute to the collective within social interactions. Because performance expectations are an attribute of culturally shared beliefs, they affect how individuals choose to behave within social situations and are typically self-fulfilling (Lawler, Ridgeway, and Markovsky 1993).

Individuals use status markers and status characteristics to identify competence levels or esteem of other actors within an encounter (Ridgeway 2006). There are two types of status characteristics – specific and diffuse – but any characteristic around which actors come to be organized is a potential status characteristic. Specific status characteristics pertain to traits that are relevant to certain settings and circumstances. They are ability-based evaluations of competence and include personality characteristics and behavioral traits such as intelligence, strength, dexterity, etc. Unlike specific characteristics, which are associated with individual performance in a particular task, diffuse characteristics are those associated with more general performance expectations. Diffuse status characteristics are more readily observable. They are often related to the physical characteristics of an individual and include categories such as age, race, and gender (Berger and Webster 2006, Correll and Ridgeway 2003).

According to Berger and Webster (2006) there are five core assumptions of status characteristics theory:

1. Status information becomes salient if it is relevant to the situation
2. Actors generalize status advantages to new situations
3. As new information or actors become salient, the existing group will restructure itself accordingly
4. Actors combine all salient status information to form performance expectations
5. An actor's observable power and prestige behaviors are a direct functions of his/her relative expectation advantage

However, Martin and Sell (1985) found an exception to Berger and Webster's assumption number four, the combining principle. This principal does not apply to equating information.

Actors do not recognize equating information as relevant information. According to Martin and Sell (1985), it should be rewritten in the following manner: all salient status characteristics that *differentiate* actors are combined to form performance expectations and guide behavior. If a characteristic differentiates actors and nothing prohibits the characteristic from being used, that characteristic will shape the ensuing behavioral outcomes (Martin and Sell 1985).

Status Construction Theory

There are three differentiating levels or orders of status beliefs. Status Construction Theory, which was developed in the early 1990s, focuses on the context in which people of different social categories encounter one another and how those encounters spread status beliefs by aligning all three orders. According to Ridgeway (2006), first order beliefs denote an individual's personal evaluation or ranking of a group. Second order beliefs indicate that individual's perception of another actor's evaluation or ranking. According to Berger and Webster (2006), we assume others share our beliefs. In other words, we assume that our first and second order beliefs will be congruent with one another. Third order beliefs refer to that individual's perception of the general public's evaluation of a particular group. Third order beliefs refer to legitimated, collectively valid, status beliefs (Ridgeway 2006).

The legitimation of cultural status beliefs leads to the development of stable ranks of influence within a group (Lawler, Ridgeway, and Markovsky 1993). Characteristics that encompass either positive or negative evaluations become the basis of inequality within social interactions. Legitimation of a status belief, however, requires the collective support of others (Berger and Webster 2006). It requires that those in one categorical group acquiesce to another and accept that the other is ranked higher within the social order of power and prestige.

Once status beliefs have been legitimized, status indicators become much more salient to low status individuals than high status individuals. The way in which an actor uses differentiating information depends upon his/her status position. For low status actors, status has a direct affect on the process of differentiation. For high status actors, it has almost no effect. As a result, altering a high status individual's performance expectations of a low status individual is generally easier than altering the performance expectations of a low status individual about him/herself (Martin and Sell 1985).

Status and the Identity Process

Status beliefs play an important role in the identity process. Contrary to lay notions of the term, identity is not an individual state or trait. Identity is a continuous, self-adjusting process of negotiation between the self and society. It is an expression of who we are within the confines of what others will allow us to be. The number of identities that an individual possesses is unbounded. We may have as many identities as we do different roles or relationships (Stets 2006). Status characteristics and status beliefs are an integral part of the identity.

Cast (2003) extends identity theory to incorporate notions of status by examining how individuals "define the situation". Actors possess a number of techniques that allow them to gain control over how others perceive them. They may find situations that confirm their identity meanings, altercast others into complementary roles, and/or resist the imposition of alternative identities upon the self. Cast (2003) found that high status individuals typically have more control and maintain identity congruence better than their lower status counterparts.

Love and Davis (2014) also describe status in terms of structure and the ability to define the situation. In their study on role taking accuracy, they found that lower status individuals are

better at role taking. Individuals in lower status positions gave more precise behavioral predictions for higher status individuals than individuals in high status positions gave for low status individuals. Love and Davis (2014), like Cast (2003), found that actors in high status positions are better at defining the situation because of their ability to maintain identity meanings, influence others behavior, and resist the imposition of an identity upon the self by another.

Challenging the Status Quo

By challenging the acceptance of conventional categorical distinctions, status hierarchies, and role expectations we have the power to undermine the very process of status belief formation (Ridgeway 2006). According to EST, high status actors act as sources whose evaluations of others are typically accepted and therefore have the ability to facilitate or impede the legitimation and spread of particular beliefs. A source is typically an individual of high status whose evaluations of others will typically be accepted (Berger and Webster 2006). According to Berger and Webster (2006), increasing the frequency of encounters between individuals who possess differentiating status characteristics and increasing the familiarity between them may lessen the effects of generalized expectations as well. Activating the salience of more positive status characteristics, refusing to comply with deferential, performance expectations, and exiting the situation also have the potential to challenge the status quo.

Reward Expectations and Free Riding

Most of the work involving EST focuses on the relationship between status characteristics and performance expectations. The literature focuses on how status beliefs are formed, how they combine with one another, and how they affect individual behavior within interpersonal interactions. EST also comprises a branch surrounding reward expectations.

Reward expectations refer to the anticipation of rewards possessed by the self and others based upon status characteristics (Berger and Webster 2006). When socially valued rewards are unequally distributed, individuals use differences in allocations to generate performance expectations. Social rewards are affected by existing performance expectations and simultaneously affect the development of performance expectations. There is a dynamic interplay between the two such that reward expectations often serve to legitimate the unequal allocation of rewards based upon status hierarchies (Correll & Ridgeway 2003). Simpson, Willer, and Ridgeway (2012), for example, highlight the ways in which status differentiation can alleviate start-up problems and discourage free riding within collectively oriented groups by creating structured patterns for contributors.

There are many potential avenues for future research involving distributive justice and reward expectations. For the purpose of this study, however, I focus on investigating the free rider problem. Like status, free riding has also been explored from a variety of different theoretical perspectives. Much of the existing work on free riding comes from an economic perspective and focuses on motivation and prevention. I, however, want to revert to the foundations of the term and investigate how we define who is and is not a free rider.

Within the existing literature, a free rider is defined as one who intentionally chooses to opt out of participating or contributing to a group but simultaneously retains the benefits that derive from group membership and collective cooperation. Free riders, in other words, profit off of or make use of the resources or services of a group without paying the cost of said benefit. Incentives to free ride develop when the rewards for contributors and non-contributors alike are

the same, and those who fail to pay the cost of contributing get the same reward as those who cooperate and contribute to the group (Delton et. al 2012).

Game Theory & Rational Choice Theory

Because free riding can endanger the stability and progression of collective action, groups must find a way to identify and eliminate free riding in order to evolve. Evolutionary game theory categorizes free riders as any actor who intentionally fails to contribute to the collective (Delton et. al 2012). Low return rates are not sufficient for the categorization of an actor as a free rider. Actors should only be labeled as free riders if their failure to contribute is intentional and exploitative. According to Delton et. al (2012), lack of effort and intentional failure to contribute are viewed as evidence of exploitive rather than cooperative intent. In order to dissuade potential free riders, group members may choose to exclude actors guilty of free riding, create incentives for them to become contributors, and/or reduce their welfare so that it is lower than that of other cooperators.

Rational choice theory derives in part from game theory. It focuses on the intentionality and preferences of actors. According to rational choice theory, an actor's behavior is a reflection of his/her outcome preference hierarchy. Rational actors weigh opportunity costs of decisions in order to maximize their benefits and obtain desired outcomes (Ritzer 2011).

The potential to free ride creates a social dilemma. The group profits when all its members choose to contribute, and yet each individual profits most when he/she chooses to free ride. What is rational for the individual level is irrational for the group (Simpson, Willer, and Ridgeway 2012). While a case can be made for the rationality of either decision, rational choice theory argues that if an individual acts out of pure self-interest, the most rational option is for him/her to cheat and free ride. Cheating produces short-term results that benefit the individual immediately but also has the potential to lead to punishment. Cooperating ensures the benefits of group membership without fear of retribution. A truly rational individual would want everyone else to contribute while he/she becomes the solitary free rider (Collins 1982).

Affect Control Theory and Distributive Justice

Affect control theory can predict how actors will respond to behaviors, like free riding, that violate their expectations. According to affect control theory, individuals strive to maintain the evaluative, potent, and active dimensions of existing affective meanings within encounters. "Actors sanction those who violate norms, label those who engage in dramatically unexpected behaviors, and blame the victim of negative acts by others" (Robinson and Smith-Lovin 2006:138). Because status is linked with distribution norms, actors who violate such norms by choosing to free ride present themselves as a threat to the status of the group and its individual members. As a result, it is not surprising to find that free riders are often characterized as untrustworthy, selfish, and disagreeable (Nichols 2009; Fehr and Gächter 2000).

Unlike rational choice theory, affect control theory takes into account "transrational sentiments" or the non-rational, emotional calculations that come into play within interpersonal interactions (Collins 1982:14). Because free riding can endanger the progression of collective action and violates group norms, it often elicits strong emotional responses from contributing group members (Fehr and Gächter 2000). Empirical cooperation studies show that free riding provokes feelings of anger, disgust, and reluctance to work with a known free rider in future interactions. Additionally, within the context of a collective action, they are viewed as untrustworthy, selfish, and unlikeable (Baily et. al 2013; Stouten et. al 2007).

Conceptualization and Operationalization

Free Riding

The literature identifies a few different criteria for categorizing a free rider. I have adopted a sociological social psychological definition of the free rider. Within this paper, a free rider shall be labeled as someone who intentionally opts out of contributing to the group but simultaneously retains the benefits that derive out of that group's cooperative work. As Delton et. al (2012:1267) articulated, "Given a collective action, if an agent is a participant and a beneficiary and intentionally fails to contribute through an exploitive motivation, then mark the agent as a free rider". Free riders, in other words, are motivated to profit off or make use of the resources or services of a group without paying the price. They are characterized by their exploitative intent (Delton et. al 2012). Once an individual's behavior has been labeled as acting unfair intentionally, he/she will come to be associated with negative emotions such as anger and disgust; be characterized by the undesirable traits of selfishness, untrustworthiness, and disagreeability; and face potential social isolation or other forms of punishment (Sprecher 1992; Fehr and Gächter 1999; Shinada et. al 2004; Simpson et. al 2012; Baily et. al 2013).

Status and Sex

Prior investigations into the effect of status on collective action have focused on how status can dissuade free riders and increase cooperation by serving as an incentive or reward for participation. It is equally important however, to understand how status affects people's ability to free ride. Collective action requires the avoidance of the free rider problem. Therefore, it seems pertinent that we seek to fully understand how it is that individuals identify and label free riders and whether or not these criteria differ depending upon ones status.

Because the purpose of this study is to determine how status affects the ability to free rider, using a diffuse status characteristic as an indicator of status within this study is a logical choice. Status characteristics are labels that bind certain behavioral assumptions, or performance expectations, to groups of individuals and indicate their relative status within encounters. Unlike specific status characteristics, which are often only revealed over time, sex becomes salient within most interpersonal interactions. Sex is a diffuse status characteristic that has been widely studied and reported on (Riordan 1983; Kerr and MacCoun 1985; Sell 2009; Love and Davis 2014). Within the literature, women are typically identified as low status actors and men are identified as high status actors. As a result, I will code the non-cooperating female as a low status actor and the non-cooperating male as a high status actor. The sex of the cooperating actor will remain constant. The sex of the uncooperative actor, or potential free rider, will be manipulated via random assignment. I will use the attitudinal responses of participants to determine how the status (male = high; female = low) of the uncooperative actor and of the participant affect interpretations of his/her behavior.

Methodology

This study employs a simple vignette with a between-subject design to investigate the relationship between status and free riding. Vignettes are particularly useful in that they allow researchers to manipulate variables that would otherwise be sensitive to address or difficult to control and to randomly assign information to different individuals or groups (Aguinis and Bradley 2014). Furthermore, vignettes can be administered in a variety of settings including

classrooms or online, and they allow information from large numbers of participants to be collected over a relatively short time period.

Sample Design

Students were recruited from large introductory classes at Texas A&M University. Researchers presented information about the studies and, if interested, people could sign up and be contacted for varying studies. Both studies involved some payment.

Potential participants were contacted via email addresses and asked if they would like to participate in vignette studies for \$15. (Two vignette studies were involved. The one reported in this study and another.). Volunteers who chose to participate were given a link to a form for informed consent. The vignettes and the consent form were did not include any personally identifiable information about the participant. All participants were assigned a unique number (unassociated with their responses) that was to claim their participation fee after completing the study.

Vignette Design

All participants were presented with the same hypothetical scenario about a collectively oriented, group task, which was pretested for its ability to effectively demonstrate free riding. The task requires participants to imagine that they have been placed in a group of three and asked to complete a group assignment for class. Participants were randomly assigned to either the high or low status condition. Participants in the high status condition received a vignette in which the uncooperative partner is identified as male, and participants in the low status condition received an evaluation in which the uncooperative partner is identified as female.

After reading the vignette and discovering that one of their partners is uncooperative, participants were asked to fill out four evaluation sheets pertaining to the scenario. The first evaluation is a personal assessment. Participants were asked to indicate how they felt about their performance by ranking their feelings pleased/displeased, happy/unhappy, satisfied/unsatisfied, and content/discontent on a scale of 0-10. They were then asked to describe themselves as competent/incompetent, cooperative/uncooperative, agreeable/disagreeable, trustworthy/untrustworthy, or generous/selfish based on their performance. Participants were also asked to grade their overall performance on a scale from 0-10 in which 0 represents an F and 10 represents an A. The second and third evaluations are partner assessments. The sex of the cooperative partner will remain constant while the sex of the non-cooperative partner will vary randomly between male and female.

Participants were asked to indicate how they felt – pleased/displeased, happy/unhappy, satisfied/unsatisfied, or content/discontent – about the performance of both the cooperative and non-cooperative partner. They were then be asked to described each partner as competent/incompetent, cooperative/uncooperative, agreeable/disagreeable, trustworthy/untrustworthy, or generous/selfish and grade their overall performance on a scale from 0-10. At the end of each evaluation, participants will be asked whether they would be willing to collaborate with either partner again in the future on a scale from 0-10 with 0 representing no willingness and 10 representing complete willingness. The fourth evaluation is a group assessment, which mirrors the set up of the first three.

Empirical Predictions

Based on the existing literature on expectation states theory, I hypothesize that higher status actors are generally granted a greater degree of social leniency than lower status actors when it comes to free riding. Drawing on equity theory and the equality rule, I suspect that within one-time interactions with strangers of equal status conceptualizations of fairness will be relatively simple. The baseline or focal point for fairness and under these conditions will be equality (McAuliffe et. al 2013; Nichols 2009; Stouten et. al 2007). As more information about participants within an interaction becomes available (i.e. race, class, sex, etc.), the criteria for fairness will become more complex and move away from simple notions of equality and towards that of equity and reciprocity. Within these more complex, nuanced interactions, the resources that each actor has to offer to the group may vary. Status and prestige may be just as valuable, if not more than, traditional resources such as time and money. As a result, these types of resources are likely taken into account when assessing fairness.

Within this study, participants evaluating low status, female actors will offer harsher judgments of free riders than participants evaluating higher status, male actors exhibiting the same behavior. Extrapolating from affect control theory, I posit that participants will express negative affect in response to inequitable treatment by potential free riders. Taken in combination with status characteristics theory, I hypothesize:

- H1:* Participants will indicate more displeasure with the performance of non-cooperating females than they will for males.
- H2:* Participants will accord less happiness to the performance of non-cooperating females than they will for males.
- H3:* Participants will indicate less satisfaction with the performance of non-cooperating females than they will for males.
- H4:* Participants will accord greater discontent to the performance of non-cooperating females than they will for males.

Based on game theory and affect control theory, which indicates that participants' associate potential free riders with negative attributes, and status characteristics theory, I hypothesize:

- H5:* Participants will describe non-cooperating females as less cooperative than non-cooperative males.
- H6:* Participants will describe non-cooperating females as less agreeable than non-cooperative males.
- H7:* Participants will describe non-cooperating females as less trustworthy than non-cooperative males.
- H8:* Participants will describe non-cooperating females as more selfish than non-cooperative males.

Generalizing from game theory, which suggests that individuals are less willing to collaborate with and if given the opportunity will punish free riders, and status characteristics theory, I hypothesize:

- H9:* Participants will give non-cooperative females lower grades than non-cooperative males.

H10: Participants will indicate less willingness to collaborate with non-cooperative females than males in the future.

Primary Results

A total of 101 participants took part in the study. The sample was composed of 51 females and 50 males. There were 41 freshman, 29 sophomores, 20 juniors, and 11 seniors pursuing a wide variety of majors. The two most common majors represented were psychology and sociology, which represented 28% of the total sample. All participants reported their marital status as single with 94 participants identifying as straight, 4 as gay/lesbian, 2 as bisexual, and 1 as preferring not to answer. The average time to completion was 16 minutes and 39 seconds.

A series of two-sample, planned comparison t-tests were conducted to examine the effect of status on free riding within one-shot interactions in a small group setting. Table 1 indicates the means, standard deviations, and t-scores for the dependent measures described in the hypotheses above. An alpha level of .05 was used for all statistical tests. Participants' evaluations of the non-cooperative partner did not significantly differ by sex on any of the dependent measures. Contrary to my hypotheses, there are no significant differences between participants' perception of non-cooperative men or women for any measures. However, if we examine the responses of men and women separately, some effects emerge.

Hypothesis 1 states that participants will indicate more displeasure with the performance of non-cooperating females than males. For the male participants, non-cooperative male partners received an average score of 6.76, compared to non-cooperative female partners who received an average score of 5.80, $p = 0.2583$. For the female participants, non-cooperative male partners received an average score of 7.52, compared to non-cooperative female partners who received an average score of 8.00, $p = 0.4991$. Neither result is statistically significant; therefore, no support was found for my first hypothesis.

Hypothesis 2 states that participants will accord less happiness to the performance of non-cooperating females than males. For the male participants, non-cooperative male partners had a mean score of 7.08, compared to non-cooperative female partners who had a mean score of 5.32, $p = 0.0295$. Male participants were significantly less happy with the performance of non-cooperative male partners than non-cooperative female partners. Although this is a significant difference, the directionality of the difference is opposite to that which was predicted. Therefore, the results do not support my second hypothesis. For the female participants, non-cooperative male partners has a mean score of 6.68, compared to non-cooperative female partners who has a mean score of 7.42, $p = 0.2740$. This is not statistically significant, and therefore it does not support my second hypothesis.

Hypothesis 3 states that participants will indicate less satisfaction with the performance of non-cooperating females than males. For the male participants, non-cooperative male partners received an average score of 6.92, compared to non-cooperative female partners who received an average score of 5.08, $p = 0.0261$. Male participants were significantly less satisfied with the performance of non-cooperative male partners than non-cooperative female partners. Although this is a significant difference, the directionality of the difference is opposite to that which was predicted. Therefore, the results do not support my third hypothesis. For the female participants, non-cooperative male partners received an average score of 6.67, compared to non-cooperative female partners who received an average score of 7.42, $p = 0.3011$. This is not statistically significant and does not support my third hypothesis.

Hypothesis 4 states that participants will accord greater discontent to the performance of non-cooperating females than males. For the male participants, non-cooperative male partners had a mean score of 7.08, compared to non-cooperative female partners who had a mean score of 5.32, $p = 0.0369$. Male participants were significantly less content with the performance of non-cooperative male partners than non-cooperative female partners. Although this is a significant difference, the directionality of the difference is opposite to that which was predicted. Therefore, the results do not support my fourth hypothesis. For the female participants, non-cooperative male partners had a mean score of 6.68, compared to non-cooperative female partners who had a mean score of 7.58, $p = 0.2284$. This is not statistically significant and therefore does not support my third hypothesis.

Hypothesis 5 states that participants will describe non-cooperating females as less cooperative than non-cooperative males. For the male participants, non-cooperative male partners received an average score of 7.12, compared to non-cooperative female partners who received an average score of 6.08, $p = 0.1799$. For the female participants, non-cooperative male partners received an average score of 7.46, compared to non-cooperative female partners who received an average score of 7.46, $p = 0.9964$. Neither result is statistically significant; therefore, no support was found for my fifth hypothesis.

Hypothesis 6 states that participants will describe non-cooperating females as less agreeable than non-cooperative males. For the male participants, non-cooperative male partners had a mean score of 6.75, compared to non-cooperative female partners who had a mean score of 5.96, $p = 0.2989$. For the female participants, non-cooperative male partners had a mean score of 6.80, compared to non-cooperative female partners who had a mean score of 7.00, $p = 0.7623$. Neither result is statistically significant; therefore, no support was found for my sixth hypothesis.

Hypothesis 7 states that participants will describe non-cooperating females as less trustworthy than non-cooperative males. For the male participants, non-cooperative male partners received an average score of 5.80, compared to non-cooperative female partners who received an average score of 4.38, $p = 0.0604$. For the female participants, non-cooperative male partners received an average score of 5.26, compared to non-cooperative female partners who received an average score of 6.19, $p = 0.2132$. Neither result is statistically significant; therefore, no support was found for my seventh hypothesis.

Hypothesis 8 states that participants will describe non-cooperating females as more selfish than non-cooperative males. For the male participants, non-cooperative male partners had a mean score of 7.83, compared to non-cooperative female partners who had a mean score of 6.76, $p = 0.1875$. For the female participants, non-cooperative male partners had a mean score of 7.72, compared to non-cooperative female partners who had a mean score of 8.08, $p = 0.5970$. Neither result is statistically significant; therefore, no support was found for my eighth hypothesis.

Hypothesis 9 states that participants will give non-cooperative females lower grades than non-cooperative males. For the male participants, non-cooperative male partners received an average grade of 5.17, compared to non-cooperative female partners who received an average grade of 5.76, $p = 0.4861$. For the female participants, non-cooperative male partners received an average grade of 5.21, compared to non-cooperative female partners who received an average grade of 4.81, $p = 0.5873$. Neither result is statistically significant; therefore, no support was found for my ninth hypothesis.

Hypothesis 10 states that participants will indicate less willingness to collaborate with non-cooperative females than males in the future. For the male participants, non-cooperative

male partners had a mean score of 2.92, compared to non-cooperative female partners who had a mean score of 4.32, $p = 0.1101$. For the female participants, non-cooperative male partners had a mean score of 3.16, compared to non-cooperative female partners who had a mean score of 2.88, $p = 0.6858$. Neither result is statistically significant; therefore, no support was found for my tenth hypothesis.

Although no predictions were made about differences in perceptions of competence based on the sex of the free rider, we did create an additional measure for competence that was tested as well. For the male participants, non-cooperative male partners received an average score of 5.92, compared to non-cooperative female partners who received an average score of 5.12, $p = 0.2511$. This is not a significant difference. For the female participants, non-cooperative male partners received an average score of 4.80, compared to non-cooperative female partners who received an average score of 6.60, $p = 0.0092$. This is a statistically significant difference. Female participants identified the non-cooperative female partners as significantly less competent than the non-cooperative male partners. This may indicate that female participants did not identify the behavior of non-cooperative females as free riding at all.

Table 1: Means and T-scores of the Free Rider's Performance

Female Sample (n=51)	Non-cooperative Female Partner	Non-cooperative Male Partner	T-statistic
Displeasure	8.00(2.48)	7.52(2.55)	-0.6810
Unhappiness	7.42(2.39)	6.68(2.41)	-1.1062
Dissatisfaction	7.42(2.50)	6.67(2.62)	-1.0453
Discontent	7.58(2.59)	6.68(2.59)	-1.2205
Incompetence	6.6(2.39)	4.8(2.20)	-2.7176*
Uncooperative	7.46(2.55)	7.46(2.40)	-0.0046
Disagreeability	7.00(2.56)	6.80(2.10)	-0.3000
Untrustworthy	6.19(2.56)	5.26(2.60)	-1.2620
Selfishness	8.08(2.56)	7.72(2.21)	-0.5322
Inefficiency	-	-	-
Grade	4.81(2.51)	5.21(2.67)	0.5465
Future Work	2.88(2.52)	3.16(2.30)	0.4069
Male Sample (n= 50)			
Displeasure	5.80(3.35)	6.76(2.52)	1.1439
Unhappiness	5.32(3.20)	7.08(2.27)	2.2434*
Dissatisfaction	5.08(3.37)	6.92(2.12)	2.2950*
Discontent	5.32(3.36)	7.08(2.34)	2.1468*
Incompetence	5.12(2.74)	5.92(2.08)	1.1618
Uncooperative	6.08(2.98)	7.12(2.39)	1.3607
Disagreeability	5.96(2.76)	6.75(2.49)	1.0505
Untrustworthy	4.38(2.99)	5.80(2.14)	1.9242
Selfishness	6.76(3.10)	7.83(2.33)	1.3379
Inefficiency	-	-	-
Grade	5.76(3.13)	5.17(2.61)	-0.7022
Future Work	4.32(3.24)	2.92(2.76)	-1.6287

Note: Standard Deviations are in parentheses

* $p < .05$

Additional Results

A series of two-sample, post-hoc t-tests were also conducted to examine the effect of the status of the non-cooperative partner on perceptions of the cooperative partner as well as the group as a whole. Table 2 indicates the means, standard deviations, and t-scores for each measure tested in relation to the cooperative partner, and Table 3 indicates the means, standard deviations, and t-scores for each measure tested in relation to the group. An alpha level of .05 was used to determine significance for all statistical tests.

Cooperative Partner Evaluation

For the female participants, only one of the eleven measures was significant (see Table 2). On the measure testing how willing participants were to work with the cooperative partner again in the future, participants with non-cooperative male partners gave a mean score of 9.44, compared to participants with non-cooperative female partners who gave a mean score of 8.19, $p = 0.0275$. Thus, female participants were significantly less willing to work with the cooperative partner again if the third member of the group had been a non-cooperative female rather than a non-cooperative male.

Table 2: Means and T-scores of the Cooperative Partner's Performance, Female Sample

Female Sample (n=51)	Non-cooperative Female Partner	Non-cooperative Male Partner	T-statistic
Displeasure	2.58(2.83)	1.36(2.16)	-1.7214
Unhappiness	2.54(2.73)	1.40(2.18)	-1.6413
Dissatisfaction	2.35(2.77)	1.32(2.15)	-1.4724
Discontent	2.31(2.65)	1.36(2.19)	-1.3876
Incompetence	2.32(2.12)	1.64(2.20)	-1.1149
Uncooperative	2.04(2.76)	1.28(2.15)	-1.0907
Disagreeability	2.00(2.77)	1.48(2.14)	-0.7426
Untrustworthy	1.92(2.25)	1.44(2.18)	-0.7654
Selfishness	2.35(2.99)	1.56(2.26)	-1.0561
Inefficiency	-	-	-
Grade	8.96(1.82)	9.04(2.05)	0.1446
Future Work	8.19(2.43)	9.44(1.29)	2.2728*

Note: Standard Deviations are in parentheses

* $p < .05$

For the male participants, on the other hand ten of the eleven measures tested were significant. Only the trustworthiness of the cooperative partner was found to be statistically insignificant when comparing participants based on the sex of the non-cooperative partners. When testing how pleased participants were with the performance of the cooperative partner, participants with non-cooperative male partners gave an average score of 0.88, compared to participants with non-cooperative female partners who gave an average score of 2.04, $p = 0.0161$. Thus, male participants with non-cooperative female partners were significantly less

pleased with the performance of the cooperative partner than those with non-cooperative male partners.

On the measure testing how happy participants were with the performance of the cooperative partner, participants with non-cooperative male partners gave a mean score of 0.92, compared to participants with non-cooperative female partners who gave a mean score of 2.24, $p = 0.0098$. Thus, male participants with non-cooperative female partners were significantly less happy with the performance of the cooperative partner than those with non-cooperative male partners.

When testing how satisfied participants were with the performance of the cooperative partner, participants with non-cooperative male partners gave an average score of 0.84, compared to participants with non-cooperative female partners who gave an average score of 2.00, $p = 0.0117$. Thus, male participants with non-cooperative female partners were significantly less satisfied with the performance of the cooperative partner than those with non-cooperative male partners.

On the measure testing how content participants were with the performance of the cooperative partner, participants with non-cooperative male partners gave a mean score of 0.96, compared to participants with non-cooperative female partners who gave a mean score of 2.24, $p = 0.0129$. Thus, male participants with non-cooperative female partners were significantly less content with the performance of the cooperative partner than those with non-cooperative male partners.

When testing how competent participants believed the cooperative partner to be, participants with non-cooperative male partners gave an average score of 1.16, compared to participants with non-cooperative female partners who have an average score of 2.32, $p = 0.0157$. Thus, male participants with non-cooperative female partners described the cooperative partner as significantly less competent than those with non-cooperative male partners.

On the measure asking participants to describe how cooperative the cooperative partner was, male participants with non-cooperative male partners gave a mean score of 0.80, compared to participants with non-cooperative female partners who gave a mean score of 2.08, $p = 0.0222$. Thus, male participants with non-cooperative female partners described the cooperative partner as significantly less cooperative than those with non-cooperative male partners.

When testing how agreeable participants believed the cooperative partner to be, participants with non-cooperative male partners gave an average score of 0.88, compared to participants with non-cooperative female partners who gave an average score of 2.16, $p = 0.0098$. Thus, male participants with non-cooperative female partners described the cooperative partner as significantly less agreeable than those with non-cooperative male partners.

On the measure asking participants to describe how generous the cooperative partner was, male participants with non-cooperative male partners gave a mean score of 1.08, compared to male participants with a non-cooperative female partner who gave an mean score of 2.28, $p = 0.0134$. Thus, male participants with non-cooperative female partners described the cooperative partner as significantly more selfish than those with non-cooperative male partners.

When testing how participants graded the cooperative partner, male participants with non-cooperative male partners gave an average grade of 9.48, compared to male participants with a non-cooperative female partner who gave an average grade of 8.44, $p = 0.0418$. Thus, male participants with non-cooperative female partners gave the cooperative partner significantly lower grades than those with non-cooperative male partners.

And, on the measure asking participants to indicate how willing they were to work with the cooperative partner again in the future, male participants with non-cooperative male partners gave a mean score of 9.52, compared to male participants with non-cooperative female partners who gave a mean score of 8.20, $p = 0.0122$. Male participants with non-cooperative female partners were significantly less willing to work with the cooperative partner again in the future than those with non-cooperative male partners.

Table 3: Means and T-scores of the Cooperative Partner's Performance, Male Sample

Male Sample (n=50)	Non-cooperative Female Partner	Non-cooperative Male Partner	T-statistic
Displeasure	2.04(2.07)	0.88(1.05)	-2.4959*
Unhappiness	2.24(2.20)	0.92(1.08)	-2.6907*
Dissatisfaction	2.00(1.96)	0.84(1.03)	-2.6229*
Discontent	2.24(2.15)	0.96(1.24)	-2.5814*
Incompetence	2.32(2.08)	1.16(1.03)	-2.5037*
Uncooperative	2.08(2.48)	0.80(1.08)	-2.3644*
Disagreeability	2.16(2.19)	0.88(0.93)	-2.6885*
Untrustworthy	2.04(2.21)	1.12(1.05)	-1.8806
Selfishness	2.28(2.09)	1.08(1.04)	-2.5693*
Inefficiency	-	-	-
Grade	8.44(2.36)	9.48(0.77)	2.0912*
Future Work	8.20(2.42)	9.52(0.77)	2.6035*

Note: Standard Deviations are in parentheses

* $p < .05$

Group Evaluation

Table 4: Means and T-scores for the Group's Performances, Male Sample

Male Sample (n=50)	Non-cooperative Female Partner	Non-cooperative Male Partner	T-statistic
Displeasure	2.79(2.75)	2.43(2.02)	-0.5053
Unhappiness	2.74(2.99)	3.00(2.16)	0.3487
Dissatisfaction	2.75(2.86)	2.25(2.01)	-0.7008
Discontent	2.87(2.78)	3.12(2.17)	0.3493
Incompetence	2.00(1.83)	2.72(2.19)	1.2293
Uncooperative	3.00(2.28)	3.22(1.88)	0.3552
Disagreeability	2.95(2.36)	2.83(1.90)	-0.2016
Untrustworthy	-	-	-
Selfishness	-	-	-
Inefficiency	3.50(2.71)	3.80(2.66)	0.3586
Grade	9.04(1.20)	8.48(1.36)	-1.5336
Future Work	5.00(3.27)	5.84(2.67)	0.9864

Note: Standard Deviations are in parentheses

* $p < .05$

For the male participants, none of the measures tested in the group evaluation produced statistically significant results. For the female participants, three of the measures tested produced statistically significant results – pleasure, efficiency, and willingness to participate in future interactions. Specifically, female participants with non-cooperative male partners gave a mean score of 2.32, compared to participants with non-cooperative female partners who gave a mean score of 3.46 to the group on the pleasure scale, $p = 0.0395$. Female participants with non-cooperative female partners were significantly less pleased with the performance of the group than those with non-cooperative male partners. Female participants with non-cooperative male partners gave an average score of 2.60, compared to participants with non-cooperative female partners who gave an average score of 4.16 to the group on the efficiency scale, $p = 0.0222$. Thus, female participants with non-cooperative female partners saw the group as significantly less efficient than those with non-cooperative male partners. And, female participants with non-cooperative male partners gave an average score of 5.64, compared to those with non-cooperative female partners who gave an average score of 3.92 on the measure indicating how willing they were to work with the group again in the future, $p = 0.0125$. Thus, female participants with non-cooperative female partners were significantly less likely to want to work with the same group again in the future than were those with non-cooperative male partners.

Table 5: Means and T-scores for the Group's Performances, Female Sample

Female Sample (n=51)	Non-cooperative Female Partner	Non-cooperative Male Partner	T-statistic
Displeasure	3.46(2.08)	2.32(1.75)	-2.1152*
Unhappiness	3.16(2.15)	2.42(2.15)	-1.2100
Dissatisfaction	2.80(1.85)	2.12(2.01)	-1.2462
Discontent	3.56(2.66)	2.40(2.24)	-1.6681
Incompetence	2.81(1.86)	2.16(1.93)	-1.2222
Uncooperative	3.50(1.68)	3.25(1.87)	-0.4979
Disagreeability	3.67(1.86)	3.20(2.08)	-0.8268
Untrustworthy	-	-	-
Selfishness	-	-	-
Inefficiency	4.16(2.23)	2.60(2.43)	-2.3636*
Grade	8.35(1.29)	8.67(1.09)	0.9429
Future Work	3.92(2.54)	5.64(2.16)	2.5939*

Note: Standard Deviations are in parentheses

* $p < .05$

Discussion

This study sought to test how gender status affects the ability to free ride. Drawing primarily on literature from status characteristics theory, game theory, and affect control theory, I developed ten hypotheses. Although the results from this study did not support any of the specific differences hypothesized, they did indicate some unexpected differences related to gender and the ability to free ride and identified a number of areas in need of further investigation. Expectedly, the evaluations of free riders were negative across the board. Results indicated that participants disapproved of free riding. They gave free riders poor grades and were unlikely to want to work with known free riders again in future endeavors. Participants were

displeased, unhappy, dissatisfied, and discontent with the behavior of both male and female free riders, and participants described free riders as uncooperative, disagreeable, and selfish. Furthermore, results indicate that these negative attributes associated with free riding extend beyond the individual free rider and affect the willingness of individuals to work with actors and groups that were associated with free riding.

Gender differences were found for three of the eleven variables tested. The directionality of those differences, however, was opposite to those predicted. Male participants were significantly less happy, less satisfied, and less content with the performance of uncooperative males rather than uncooperative females. The directionality of this gender difference is not supported by the theories from which I extrapolated. Nevertheless, other theories may yet explain this significant difference. One potential explanation for this result comes from expectations theory, which suggests that actors tend to behave in ways that are consistent with others expectations. Gender norms equate women with cooperation and men with competition. Because free riding is by definition, non-cooperative, females who attempt to engage in this behavior would be violating gender norms. Free riding could, however, be viewed as the most rational form of competition; therefore, males who attempt to free ride would not in violation of gender norms. At the same time, male participants may have expected to encounter certain cooperation norms when working in a mixed sex group (Balliet et. al 2011; Anthony and Horne 2003). Deviation from this fairness norm by an uncooperative male partner may have been interpreted as a signaling of differences in status (i.e. the uncooperative partners dominance) or the existence of a different set of norms (i.e. competition) (Nichols 2009). The negative emotions experienced by male participants may have been a reflection of the distress experienced when their identities as males were threatened by the more competitive behavior of their free riding counterparts.

Interestingly, female participants identified female free riders as significantly less competent than the male free riders. Male free riders were viewed as relatively competent whereas female free riders were viewed as somewhat incompetent. This association between female free riding and incompetence may indicate that female participants did not identify uncooperative females as free riders (Delton et. al; Bailey et. al 2013). If so, results based on data collected from female participants evaluating female free riders may classify as invalid due to their inability to meet the scope conditions for this study. The theoretical implications for this finding are intriguing particularly in light of the fact that this group was also the only group with no differentiating information for participants to use in their evaluations of others.

Although this study was not designed for the purpose of investigating participants' perceptions of cooperative partners or the group as a whole, the study revealed some additional, interesting findings in these areas. Evaluations of the cooperative partner were very positive. Both male and female participants indicated feeling pleased, happy, satisfied, and content with the performance of the cooperative partner and described said partner as competent, cooperative, agreeable, trustworthy, and generous. Grades in the high B/A range were given across the board. Male participants, however, were significantly less pleased, less satisfied, less happy, and less content with the performance of the cooperative partner if the free riding partner was a female rather than a male. Male participants described the cooperative partner as significantly less competent, less cooperative, less agreeable, and more selfish and gave a significantly lower grade if the uncooperative partner had been a female rather than a male. And, although all participants indicated a willingness to work with the cooperative partner again in the future, both

male and female participants were significantly less willing to do so if the free rider had been a female rather than a male.

Results from the group evaluations also revealed a few surprise findings. The sex of the free rider did not affect male participants evaluations of the group. However, sex did affect certain aspects of female participants evaluations of the group. Female participants were significantly less pleased with the group if the free rider was female rather than a male. They found groups with female free riders to be significantly less efficient than groups with male free riders and were significantly less willing to work with the same group again in the future if the free rider was female. Although there are number of potential explanations for these results, all are inevitably due to gender effects as this was the only trait, apart from contribution level, which differentiated actors.

Evidence of social distancing between participants and those associated with female free riders in the evaluations of the cooperative partner by both males and females and of the group by females suggest that participants' responses within these evaluations may reflect subtle projections of their responses to free riding within the group. Significant asymmetry in the association patterns between participants and actors tied to male verses female free riders is noteworthy. Although participants may have been monitoring the majority of their responses within these evaluations, the lack of desire to continue to work together in the future broke through potential facades. Decisions to limit future interactions with group members because of their association with female free riders offers partial support for the prediction that women are penalized more harshly than men when it comes to free riding. From previous work on social distancing, association patterns, and social networks, we know that asymmetry in interactional patterns are linked to status hierarchies (Laumann 1965; Brashear 2008). Whether participants attempt to increase social distance between themselves and female free riders was a reflection of discontent due to the violation of gender norms or status expectations is unclear. Additional information could be gained by testing to see if similar effects are produced when participants interact with male rather than female cooperative partners. Replicating the study using a different status characteristic such as race or class to differentiate actors would also lend insight into the results of this study.

Although this study was unable to offer evidence to directly support my original hypotheses, this study provided a wealth of information about gender and free riding that requires further investigation. Although initial results from evaluations of the free riders seem to offer support for alternative hypotheses which suggest that evaluations of free riding do not vary across sex, evidence of social distancing and negative affect found in the evaluations of the cooperative partner and the group as a whole, this seems unlikely. Future studies could retest these same suppositions by making adjustments to the original design based on these results. Potential improvements, for example, could enhance the salience of free riding by altering the design of the vignette to include adjustments to the size of actors' contributions or the number of interactions between actors. The effects would likely be stronger if participants were led to believe that these interactions were to be recurring rather than one-shot endeavors. Similarly, redesigning the study to incorporate monetary contributions or a different indicator of status may also increase the salience of the free rider label. It may be that student culture is simply more egalitarian than other social settings or that status is more dependent upon class or year rather than sex. Equally possible is the fact that participants' may not have given a realistic amount thought to their responses because the interaction within the vignette and the resources at stake were not real. If these interactions were face-to-face encounters involving tangible resources, for

example, I believe the free rider effect would have been much stronger – elicited a greater degree of negative affect as well as a higher propensity to punish free riders - and the results much more robust.

Conclusion

From group projects and team sports to boycotts and trade unions, a wide range of situations require cooperation to reach a common goal. Excessive free riding and the fear it generates stymie the development of cooperation and collective action at both the micro level macro level. In order to develop measures to counteract the adverse effect of free riding at both levels, it is critical to develop a fuller understanding of how free riders are labeled and perceived as well as when others are compelled to act against them in order to restore the equilibrium.

Previous work on free riding has focused largely on variances in interactional dynamics within a controlled social dilemma. This study examined how status affects the ability to free ride in one-shot interactions by investigating differences between participants' responses to male and female free riders in a scripted vignette. Results from this study did not directly support any of my specific hypotheses. However, the results did indicate support for significant gender differences in the ability to free ride as well as partial support for the overall hypothesis through evidence of social distancing.

It was assumed going into the study that free riding would evoke strong negative responses. Results from this study confirm that supposition by highlighting that free riding is negatively sectioned regardless of the sex of the actor. Furthermore, participants' evaluations of the cooperative partner and the group as a whole indicated some unexpected, albeit patterned differences in the responses of participants to the cooperative partner and the group based on the sex of the free rider. Significant asymmetry found between responses pertaining to future association patterns with actors tied male verses female free riders lends partial support to the overarching hypothesis of this study. The significant difference in male and female participants desire to interact with partners associated with female free riders and the significant difference in female participants desire to interact with groups associated with female free riders lend partial support to the idea that lower status individuals are granted a lesser degree of social leniency than higher status actors when it comes to free riding. All of these findings, however, require further investigation.

Future research examining variations in sex composition, alternative forms or amounts of contribution, more neutral settings, and/or different status characteristics could all contribute to the theoretical and empirical work on free riding and social dilemmas, expectation states theory, game theory, and a myriad of other established social psychological theories particularly those surrounding cooperation and collective action.

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Appendix A: TAMU Sociology Research Recruitment Form

Name: _____ **Sex:** _____

Race/Ethnicity. Please check the response(s) that best represents how you think of yourself.

- ☒ Hispanic or Latino/a
☐ Mexican American
☐ Other (please specify): _____

- ☒ African American or Black
☒ Asian American or Asian (please specify): _____

- ☒ White
☐ International or Non-US Category
☐ Other (please specify): _____

University Classification (e.g., freshman): _____ **Age:** _____

Phone #: (_____) _____ - _____ **University Email:** _____@tamu.edu

Have you ever been in a social science research study? ☐ No ☒ Yes ☐ Unsure

If *Yes* or *Unsure*, please briefly describe:

Please mark what blocks of time are most convenient for you to participate. If there are specific times, please indicate. If possible, write in specific times that are best.

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning					

Afternoon

Evening

Thank you! If you have any questions about TAMU Sociology Research studies, please feel free to contact Dr. Jane Sell, Sociology Department (979.845.6120).

If you would like to participate in a study that offers a chance of winning a \$____.00 gift certificate for completing online surveys, please put your initials here: _____

Appendix B: Information Sheet

Introduction

You are invited to take part in a research study being conducted by Dr. Jane Sell, a researcher from Texas A&M University.

The purpose of this form is to provide you with information that may affect your decision as to whether or not to participate in this research study.

You have been asked to participate in a research project studying decision-making and group processes. You were selected to participate because you signed up for consideration in this study.

What will I be asked to do?

If you agree to participate in this study, you will be asked to read a hypothetical scenario about a class project and complete four evaluations pertaining to the situation. This should take approximately 30 minutes.

How many people will be asked to be in this study?

There will be 100 people in this study.

What are the risks involved in this study?

The risks associated with this study are minimal and are no greater than the risks encountered in daily life. You do not have to answer any questions that you do not want to.

Do I have to participate?

No. Your participation is voluntary. You may decide not to participate or to withdraw at any time. Your current or future relations with Texas A&M University will not be affected regardless of your decision.

Will I be compensated?

You will be paid 15 dollars for completing this study.

No class credit is involved in these studies. Your professors and classmates will not know if you do or do not participate.

Are there any costs to me?

Aside from your time, there are no costs to you.

Who will know about my participation in this research study?

This study is confidential. The records of this study will be kept private. No identifiers linking you to this study will be included in any sort of report that might be published. Research records

will be stored securely and only Dr. Sell and her research team will have access to the records.

Whom do I contact with questions about the research?

If you have questions regarding this study, you may contact Dr. Jane Sell, (979) 845-6120, j-sell@tamu.edu

Whom do I contact about my rights as a research participant?

For questions about your rights as a research participant, or if you have questions, complaints, or concerns about the research, you may call the Texas A&M University Human Subjects Protection Program office at (979) 458-4067 or irb@tamu.edu.

STATEMENT OF UNDERSTANDING: I agree to be in this study and know that I am not giving up any legal rights by signing this form. The procedures, risks, and benefits have been explained to me, and my questions have been answered. I know that new information about this research study will be provided to me as it becomes available and that the researcher will tell me if I must be removed from the study. I can ask more questions if I want. A copy of this information sheet will be available to me.

I have read and understood.

Appendix C: Survey Instrument

Please read the following scenario and then indicate your response in the evaluations below.

On the first day of class, your professor announces that one of the parts of his/her class is a group-based task that requires teams to participate in an online game. Typically, students are assigned to teams of four in which each student completes four hours of game time over the course of the semester. You, however, have been assigned to a group of three. This means that your group must decide how to split the extra four hours of playtime between the three of you. One of your teammates Chris states that he/she will only play four hours like the rest of the class. You and your other teammate Sarah decide to split the remaining hours equally and each complete six hours in order to fulfill the course requirement. Your group receives a high A on this assignment.

Part I: Personal Evaluation

1. How do you feel about your performance in working with the group?

0—1—2—3—4—5—6—7—8—9—10
Pleased Displeased

0—1—2—3—4—5—6—7—8—9—10
Happy Unhappy

0—1—2—3—4—5—6—7—8—9—10
Satisfied Unsatisfied

0—1—2—3—4—5—6—7—8—9—10
Content Discontent

2. Based on your performance within the group, how would you describe yourself?

0—1—2—3—4—5—6—7—8—9—10
Extremely Competent Extremely Incompetent

0—1—2—3—4—5—6—7—8—9—10
Extremely Cooperative Extremely Uncooperative

0—1—2—3—4—5—6—7—8—9—10
Very Agreeable Very Disagreeable

0—1—2—3—4—5—6—7—8—9—10
Very Trustworthy Very Untrustworthy

0—1—2—3—4—5—6—7—8—9—10
Very Generous Very Selfish

3. Your professor hands out a questionnaire that asks you to grade the your overall performance and that will taken into account during the final grading process. How would you grade yourself?

0—1—2—3—4—5—6—7—8—9—10
Extremely Poor (F) Excellent (A+)

Part II: Evaluation of Partner, Chris

1. How do you feel about his/her behavior?

0—1—2—3—4—5—6—7—8—9—10
Pleased Displeased

0—1—2—3—4—5—6—7—8—9—10
Happy Unhappy

0—1—2—3—4—5—6—7—8—9—10
Satisfied Unsatisfied

0—1—2—3—4—5—6—7—8—9—10
Content Discontent

2. How would you describe him/her to a friend?

0—1—2—3—4—5—6—7—8—9—10
Extremely Competent Extremely Incompetent

0—1—2—3—4—5—6—7—8—9—10
Extremely Cooperative Extremely Uncooperative

0—1—2—3—4—5—6—7—8—9—10
Very Agreeable Very Disagreeable

0—1—2—3—4—5—6—7—8—9—10
Very Trustworthy Very Untrustworthy

0—1—2—3—4—5—6—7—8—9—10
Very Generous Very Selfish

3. Your professor hands out questionnaires that ask you to grade the overall performance of each of your fellow group members. Your response will be taken into account during the final grading process. How would you grade his/her performance?

0—1—2—3—4—5—6—7—8—9—10
Extremely Poor (F) Excellent (A+)

4. Chris suggests that you work together again in the future. How would you respond?

0—1—2—3—4—5—6—7—8—9—10
Never Going to Happen Yes of Course

Part III: Evaluation of Partner, Sarah

1. How do you feel about his/her behavior?

0—1—2—3—4—5—6—7—8—9—10
Pleased Displeased

0—1—2—3—4—5—6—7—8—9—10
Happy Unhappy

0—1—2—3—4—5—6—7—8—9—10
Satisfied Unsatisfied

0—1—2—3—4—5—6—7—8—9—10
Content Discontent

2. How would you describe him/her to a friend?

0—1—2—3—4—5—6—7—8—9—10
Extremely Competent Extremely Incompetent

0—1—2—3—4—5—6—7—8—9—10
Extremely Cooperative Extremely Uncooperative

0—1—2—3—4—5—6—7—8—9—10
Very Agreeable Very Disagreeable

0—1—2—3—4—5—6—7—8—9—10
Very Trustworthy Very Untrustworthy

0—1—2—3—4—5—6—7—8—9—10
Very Generous Very Selfish

3. Your professor hands out questionnaires that ask you to grade the overall performance of each of your fellow group members. Your response will be taken into account during the final grading process. How would you grade his/her performance?

0—1—2—3—4—5—6—7—8—9—10
Extremely Poor (F) Excellent (A+)

4. Sarah suggests that you work together again in the future. How would you respond?

0—1—2—3—4—5—6—7—8—9—10
Never Going to Happen Yes of Course

Part IV: Group Evaluation

1. How do you feel about the performance of your group as a whole?

0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10
Pleased Displeased

0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10
Happy Unhappy

0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10
Satisfied Unsatisfied

0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10
Content Discontent

2. Please rate the performance of your group on the following scales

0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10
Extremely Competent Extremely Incompetent

0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10
Extremely Cooperative Extremely Uncooperative

0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10
Very Agreeable Very Disagreeable

0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10
Very Efficient Very Inefficient

3. Your professor hands out questionnaires that ask you to grade the overall performance of your group on the assignment. Your response will be taken into account during the final grading process. How would you grade your group's performance?

0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10
Extremely Poor (F) Excellent (A+)

4. Would you choose to work with this same group again in the future?

0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10
Never Going to Happen Yes of Course

Vita

Mary Kathryn McDougal was born on June 28, 1991 in Birmingham, Alabama. She received a Bachelor of Arts in Anthropology/Sociology from Rhodes College in 2014 and a Master of Science in Sociology from the University of New Orleans in 2016. She has served as Research Assistant at Rhodes College and as both a Research Assistant and Teaching Assistant in the Department of Sociology at the University of New Orleans.