

ENTITLED TO EXPECT: SYSTEM JUSTIFICATION
THEORY, SOCIOECONOMIC STATUS, AND THE
ULTIMATUM GAME

by

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Economic inequality can have grave impacts on health and wellbeing, yet the mechanisms behind it are still not fully understood. Previous studies on entitlement suggest that people from lower socioeconomic status (SES) brackets express a depressed sense of entitlement in relation to people with higher SES. However, the effect of entitlement in unfair and socially provocative situations is unclear. This study used the ultimatum game (UG) to generate a socially provocative situation in which participants in an all-male study played as responders and had the decision to accept or reject an unfair offer. To measure entitlement, participants reported how much they expected the proposer to offer them in the UG. As expected, SES predicted expectations, such that the higher one's SES, the greater their expectations in the UG. Furthermore, expectations mediated the relationships between subjective SES and offer decisions, perceptions of the offer as unfair, and feelings towards the offer (bothered, dejected, angry). These findings suggest that entitlement plays a role in the relationship between SES and behaviors in unfair and socially provocative situations such as the UG.

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Table of Contents

Introduction	1
System Justification Theory	2
Entitlement and Expectations	3
Entitlement in Men	5
Ultimatum Game and Entitlement	6
Ultimatum Game and Unfairness	7
Status Anxiety and the Ultimatum Game	7
Ultimatum Game and Decisions	8
Perceptions and Feelings in the Ultimatum Game	10
Methods	12
Participants and Procedure	12
Measures	12
Preliminary Analyses	17
Results	19
Discussion	27
References	30

List of Figures

Figure 1. MacArthur Scale of Subjective Status.	18
Figure 2. SES Ladder and offer decision mediation model.	25
Figure 3. SES Ladder and evaluation of offer mediation model.	26
Figure 4. SES Ladder and feelings towards the offer mediation model.	26

List of Tables

Table 1. Comparison of Parental Income across Participants.	18
Table 2. Results of Correlational Analysis for Model 1	19
Table 3. Results of Correlational Analysis for Model 2	20
Table 4. Results of Correlational Analysis for Model 3	20
Table 5. Results of Mediation Analyses for Model 1 with SES Ladder as the Independent Variable	24
Table 6. Results of Mediation Analysis for Model 2 with SES Ladder as the Independent Variable	24
Table 7. Results of Mediation Analysis for Model 3 with SES Ladder as the Independent Variable	24

Introduction

From gender to family standing and personal income, certain aspects related to status influence what people expect and feel they deserve. With presidential candidates making lewd comments and their followers inciting violence, the inflammatory 2016 United States (U.S.) presidential election brought up the question of entitlement—what the politicians and their supporters felt and expected to earn. In the heat of the presidential elections, a long-time political journalist stated that both presidential candidates exhibited a sense of entitlement based on their wealth and prestige, measures of socioeconomic status (SES; Leubsdorf, 2016). Both presidential candidates came from high SES backgrounds and Leubsdorf (2016) argued that their relative status led them to feel entitled to certain behaviors. Another journalist claimed that the electoral process of electing a president was unfair, oftentimes contradicting the popular vote and provoking unrest (Prokop, 2016). Furthermore, with presidential candidate Donald Trump making socially provocative comments, many traditionally marginalized communities felt cheated and unsafe after the results of the election (O’Keefe, 2016). By creating an unsafe and socially provocative environment, the 2016 presidential elections provided an example of how entitlement in high SES individuals can play out in unfair conditions, a situation few studies have addressed. The purpose of this study was to identify if and how SES was associated with entitlement in an unfair situation. In other words, this study asked how entitlement, measured through expectations of earnings, affected the relationship between SES and decisions, perceptions, and feelings in a socially provocative, economic-decision making game.

System Justification Theory

Entitlement describes the idea that some people deserve more than others, leading them to expect certain outcomes. When people with high SES expect more because they feel entitled, they legitimize the current status quo of income inequality in America. For instance, estimates suggest the top 1% of Americans hold nearly 50% of the wealth, topping levels seen just before the Great Depression (Davies, Sandstorm, Shorrocks, & Wolff, 2009). Income is one particularly poignant way to measure SES since income inequality has devastating impacts on health and wellbeing (Wilkinson & Pickett, 2009). System justification theory can explain income inequality. As a process that legitimizes current social arrangements even at the expense of group and personal interests, system justification theory asserts that people support and sustain the status quo even in unfair situations (Jost & Banaji, 1994). Unlike group justification theories that posit ethnocentricity and group solidarity lead to dissonance and action, system justification theory notes rebellion is the exception, rather than the norm (Jost, Banaji, & Nosek, 2004). Without rebellion and protest, bystanders may judge people, especially from lower status groups, as passive or apathetic, however this is not the case. Rather, proponents of system justification theory suggest that members of disadvantaged groups want to see the world as just, dependable, and legitimate (Jost, Pelham, Sheldon, & Sullivan, 2003). Seeing the world in any other way—as unjust and intolerable—would cause people from disadvantaged backgrounds to have thoughts that deviate from the existing social system. Cognitive dissonance theory assumes that such inconsistencies in thoughts and behaviors motivate people to find resolve, contributing to system justification theory's emphasis that cognitive and motivational factors interact to help

people hamper guilt by rationalizing the status quo (Jost, Pelham, Sheldon, & Sullivan, 2003; Chen & Tyler, 2001). By justifying the status quo, people from disadvantaged and advantaged groups can live in economically unfair societies.

Entitlement and Expectations

In regards to maintaining the status quo of economic inequality, members of disadvantaged groups may exhibit different behaviors than members of advantaged groups. Jost, Banaji, and Nosek's (2004) overview of system justification theory hypothesized people from disadvantaged groups express a depressed sense of entitlement. In other words, people from low status groups support and justify the social order to a greater degree than members of advantaged groups (Jost, Pelham, Sheldon, & Sullivan, 2003). For instance, research by Pelham and Hetts (2001) found that regardless of gender, people in low paying jobs showed evidence of depressed-entitlement when working on a difficult task. Their research suggests SES, controlling for status discrepancies inherent in gender, predicts feelings of entitlement. People with low SES are considered disadvantaged because they have access to fewer resources than people with high SES. According to Major (1994), social comparison biases prevent awareness of disadvantage, while attribution biases legitimize disadvantage in groups such as those with low SES. Social comparison biases encompass the tendency to compare with others like the self and with one's past outcomes, causing members of high and low status groups to have different standards of comparison when evaluating outcomes (O'Brien & Major, 2009). Hence, people with low SES expect less because they see the status quo of inequality as what *is* as well as what *ought* to be (Major, 1994). An important factor in system justification theory, depressed-entitlement

suggests that in economic-decision making, people with low SES will feel entitled to less favorable outcomes.

If members of disadvantaged groups express depressed-entitlement, then members of advantaged groups should experience the opposite, an elevated sense of entitlement. Elevated-entitlement refers to the belief held by a member of a privileged group, that they deserve—they have a right—to their position of relative advantage (Major, 1994). High SES can lead to greater material resources, which in turn leads to more social and political privileges. In regards to unequal payoffs, people treated their entitlements as rights when experimental institutions led them to believe they had earned those rights (Hoffman & Spitzer, 1985). For instance, in the U.S. men enjoy relatively more status than women and seem to feel that personal feelings of self-esteem entitle them to a certain level of payment, regardless of the quality of their performance (Pelham & Hetts, 2001). These findings suggest that men have an elevated sense of entitlement compared to women. However, gender is only one factor in determining status and relative advantage. For instance, the Psychological Entitlement Scale attempts to measure a stable and pervasive sense that one deserves more than others (Campbell, Bonacci, Shelton, Exline, & Bushman, 2010). Research suggests that SES plays a role in entitlement, such that people with higher subjective SES score higher on the Psychological Entitlement Scale (Piff, 2014). Associated with both gender and subjective SES, elevated-entitlement is the idea that one deserves more than others based on who they are, not what they have done.

Entitlement in Men

SES and gender play a role in determining relative status, as well as elevated- and depressed-entitlement. Although men express elevated-entitlement in relation to women, little research has investigated whether intragroup differences exist between men. Status differences in men may relate to feelings of depressed-entitlement and greater acceptance of disadvantageous income inequalities (Albrecht, von Essen, Fliessbach, & Falk, 2013). The phenomenon of depressed-entitlement in men with lower status, relates to system justifying beliefs (SJBs), belief systems that justify hierarchical and unequal relationships between groups in society (O'Brien & Major, 2009). SJBs explain system justification theory's assertion that low status people maintain the status quo and why people with high SES might exhibit elevated-entitlement. For instance, different cultures have different belief systems to justify social inequality, so SJBs gain the power to legitimize social inequality through their presumed collective endorsement within a culture (Major, 1994). SJBs infer that high status groups have more inputs than low status groups, leading members of high status groups to believe they deserve better outcomes (O'Brien & Major, 2009). SES measures social class, or where one stands in society. In terms of inputs, in comparison with low SES groups, members of high SES groups have greater access to resources, including material and social goods. Social goods include influences like political power and authority—the ability to influence change in society, change that could level out the economic playing field. While members of higher SES groups have greater access to resources, that access does not extend beyond their group. In other words, the possession of greater goods equates to less generosity and unethical decision-making

tendencies such as unrightfully taking or benefiting from something (Piff, Kraus, Côte, Cheng, & Keltner, 2010; Piff, Stancato, Côte, Mendoza-Denton, & Keltner, 2012).

From greed to narcissism, elevated-entitlement derived from a higher social class leads to a variety of behaviors that maintain the status quo (Piff, 2014). Although the specific factors underlying these behaviors remains relatively unexplored, initial evidence suggests that men with higher SES might express elevated-entitlement compared to men from who have lower SES.

Ultimatum Game and Entitlement

This study used the economic paradigm of the ultimatum game (UG) to measure entitlement through expectations (Güth, Schmittberger, & Schwarze, 1982; Hu et al., 2016). The UG is an economic decision-making game involving two players: a proposer and a responder. The proposer decides how to split a sum of money (e.g., \$10) between themselves and the responder (e.g., \$9, \$1 split). The responder can accept the proposed offer or the responder can reject the offer. If the responder accepts the offer, the money is split as proposed (e.g., \$9, \$1 split). However, if the responder rejects the offer, both players receive \$0. A round of the UG concludes after the responder makes a decision to accept or reject the proposer's offer. According to game theory (Selten, 1965), responders should accept any offer greater than \$0 as this would result in a financial gain. However, responders generally accept fair offers (e.g., \$5, \$5 split) and reject unfair offers (e.g. \$8, \$2 split), despite the fact that rejecting an offer results in no financial gain (Henrich et al., 2006; Nowak, Page, & Sigmund, 2000; Ochs & Roth, 1989). One variable that might impact UG behavior is expectations. Expectations, or how much the responder thinks the proposer will offer, measure a form of entitlement.

For instance, by evaluating the expected offer amount, expectations measure how much the responder expects to earn or how much they believe they deserve, a key component of entitlement (O'Brien & Major, 2009).

H1: This study hypothesized that SES would predict expectations in the UG, such that higher SES would lead to greater expectations.

Ultimatum Game and Unfairness

The UG is also a paradigm to measure responses to social provocation when responders are offered an unfair amount. Of interest to the present study is that entitlement may also influence the way men engage in socially provocative situations. System justification theory proposes that people have a general motive to maintain fairness and legitimacy (van der Toorn & Jost, 2014). In unfair situations, it is disadvantageous for someone with low SES to expect more or feel entitled since it would disturb the status quo. Hence, people tend to judge the fairness of a situation in their own self-interest (Babcock and Loewenstein, 1997). Although people may have a vested interest in viewing an event as fair, some situations may be so unfair that they are socially provocative. In that case, unfair situations can threaten status and warrant retaliation (Pillutla & Murnighan, 1996; Güth, 1995). However, few studies have investigated how entitlement effects the way individuals across the SES field respond to situations that are clearly unfair or socially provocative.

Status Anxiety and the Ultimatum Game

With expectations as the mechanism, concerns with status might effect decisions in the UG. For instance, accepting an unfair offer results in a perceived loss of

status for the responder who earns less money than the proposer. In contrast, both players earn the same amount when the responder rejects an offer, hence rejecting an offer may maintain status or prevent a loss in status. In line with this reasoning, some research indicates that high concerns for status motivate rejections of unfair offers in the UG (Brañas-Garza, Espín, Exadaktylos, & Hermann, 2014; Espín, Exadaktylos, Herrmann, & Brañas-Garza, 2015; Pillutla & Murnighan, 1996; Raihani & Bshary, 2015; Yamagishi et al., 2009, 2012). People with high concerns for status may exhibit status anxiety, the worry that one is unable to conform to the ideals of success as defined by society and as a result, may be stripped of dignity and respect (de Botton, 2008). As an index of resources, having high SES can satisfy material and esteem needs, leading Bukowski (2011) to argue that lower SES individuals express less status anxiety, instead worrying about fulfilling other needs. Hence, rejecting an offer in the UG may be seen as a response to status anxiety.

Ultimatum Game and Decisions

Recent research has manipulated status to determine the effects it has on offer decisions, specifically looking at rejections of unfair offers. Hu et al. (2016) manipulated status through a rank-inducing task (Zink et al., 2008) before participants played each of six rounds of the UG. The study found that participants rejected unfair offers more frequently when they were in high status than when they were in low status. In addition to measuring the participants' decisions, Hu et al. (2016) found that when compared with low status, participants in high status indicated they would have allocated more to themselves if given the opportunity to act as proposer in the UG. These findings are in line with past research showing an entitlement effect during asset

distribution (Albrecht, von Essen, Fliessbach, & Falk, 2013; Ball & Eckel, 1996; Ball, Eckel, Grossman, & Zame, 2001; Hu, Cao, Blue, & Zhouh, 2014). This effect may result from differences in orientation towards others while occupying different levels of social status (Hu et al., 2016). The rejection of unfair offers by high status subjects points to a trend of high status individuals feeling more entitled. Indeed, research suggests high status individuals may feel entitled to more in bargaining situations and have stronger motivations to preserve their social standing compared to low status individuals (Ball, Eckel, Grossman, & Zame, 2001; Hu, Cao, Blue & Zhouh, 2014; Hu et al., 2016). Still, there are inconsistencies in the literature in regards to the role status plays in rejecting unfair offers in the UG. For instance, when Bratanova, Loughnan, Klein, and Wood (2016) manipulated status, they found that participants primed to feel poor rejected offers more frequently than people primed to feel wealthy. Although there is some evidence that manipulating status leads to greater offer rejections amongst high status individuals, findings across studies are mixed. This study sought to expand on previous findings by looking at the role of expectations in the relationship between SES and UG decisions. To expand on existing research, this study measured entitlement through participants' expected offer amount in the UG (Hu, Cao, Blue, & Zhouh, 2014; Hu et al., 2016).

H2: This study hypothesized that expectations would mediate the relationship between SES and offer decisions, such that the effect of SES on offer decisions would be lessened by expectations.

Perceptions and Feelings in the Ultimatum Game

Perceptions of the offer and feelings towards the offer can further measure status concerns. For example, in neural activation studies, activation of the bilateral anterior insula, dorsolateral prefrontal cortex (DLPFC), and the anterior cingulate cortex were associated with receiving unfair offers in the UG (Hu et al., 2016; Sanfey, Rilling, Aronson, Nystrom, & Cohen, 2003). Sanfey, Rilling, Aronson, Nystrom, & Cohen (2003) found that participants who rejected a higher proportion of unfair offers displayed stronger activation of the bilateral anterior insula, which is associated with negative emotional states, mainly anger and disgust. The researchers suggested that the anterior insula and DLPFC, which is linked to cognitive maintenance and executive control, represent twin demands of the UG, the emotional goal of resisting unfair offers and the cognitive goal of accumulating money, respectively. In another study, van 't Wout, Kahn, Sanfey, and Aleman (2006) found an association between emotional responses as measured by skin conductance and rejections of unfair offers made by humans. One emotional response that might be linked to unfair offers in the UG is anger. Pillutla and Murningham (1996) suggested that fully informed respondents who perceived UG offers as unfair also felt angry and that anger can lead them to act spitefully by rejecting an economically valuable offer. Research by Pfister and Böhm (2012) took these findings a step further by testing whether responders would punish the proposer out of anger or a third party out of envy in a three-party, modified UG. They found that responders almost exclusively punished the proposer for unfair offers, and there was no indication of envy-related rejections towards a third party. In addition, when only 1 Euro was allocated to the responder, anger persisted on a high level,

irrespective of how much the third party was offered. However, Pfister and Böhm (2012) only measured anger in relation to the proposer, not the offer itself. Research has found that anger is positively correlated with entitlement, such that the more entitled a person feels, the more likely provocation leads to anger (Witte, Callahan, & Perez-Lopez, 2002). If high SES individuals experience elevated-entitlement, they should also be quicker to anger in socially provocative situations. To test this, this study measured whether responders viewed low offers (e.g. \$8, \$2 split) as unfair, aggressive, disrespectful, and/or greedy. In addition, it measured feelings towards offers as either bothered, dejected, or angry.

H3: This study hypothesized that expectations would mediate the relationship between SES and perceptions of unfair offers (unfair, disrespectful, greedy, aggressive).

H4: This study hypothesized that expectations would mediate the relationship between the SES measures and feelings towards the offer (dejected, bothered, angry).

Methods

Participants and Procedure

We recruited 609 male participants using Amazon Mechanical Turk (M-turk). The mean age of our participants was 30.25 ($SD=9.24$) and the age of participants ranged from 18—65. In terms of ethnicity, 64.5% of participants identified as European Americans, 9% as Hispanic/Latinos, 8.2% as African Americans, 7.1% as Asian or Pacific Islander, 1.1% as Native Americans, and 10% as “other.” Participants varied in sexual orientation with 86% identifying as heterosexual, 7.9% as homosexual, 4.8% as bisexual, and 1.3% identifying as “other.” Participants also reported their native language with 95.9% of participants reporting English as their native language, 1.6% as Spanish, 0.3% as French, 0.2% as Chinese, and 2% reported their native language as “other”. After completing the demographic questionnaire (including questions on SES as described below), participants followed each of the measurements described below in the order presented. After completing the study, participants were debriefed, informed of the real purpose of the study, and provided contact information should they have any questions. Participants were compensated 3 US dollars for the completion of this study.

Measures

Subjective SES scale. Subjective SES was measured using the MacArthur Scale of Subjective Social Status (SES Ladder) (Adler, Epel, Castellazzo, & Ickovics, 2000). The measure uses a symbolic ladder with ten rungs to create a pictorial representation of social status. The top rungs of the ladder represent the people who are the best off—those who have the most money, best education, and the most respected jobs. While the

bottom rungs of the ladder represent the people who are the worst off—those who have the least amount of money, least education, and least respected jobs or no job.

Participants in this study viewed the SES Ladder and placed themselves in a category from one to ten, with ten representing the highest rung of the ladder.

Objective SES. Objective SES was measured through maternal education (Dubow, Boxer, & Huesmann, 2009; Mercy & Steelman, 1982) and parental income (Mayer, 1997) in order to include younger participants who might not yet have their own income. Maternal education was measured by the highest degree earned and was coded into five categories: (1) some high school, (2) high school graduate, (3) some college, (4) four-year college degree, or (5) advanced degree (Master's or PhD.) Parental income was measured in 12 contiguous categories ranging from less than (1) \$20,000 to greater than (12) \$200,000.

Ultimatum Game. To measure perceptions and feelings related to economic decision-making, all participants played a computerized version of the UG (Güth, Schmittberger, Schwarze, 1982; Sanfey, Rilling, Aronson, Nystrom, & Cohen, 2003). In the UG, participants believed they were randomly assigned the role of the responder and

would play the UG with either an anonymous teammate or a rival.¹ However, in reality, the participants played the UG against an automated computer response. The other individual (the fictitious proposer) made an offer to share an amount (predetermined) of two out of ten tickets with the participant. Each ticket represented a chance to win a \$50 gift card in a random drawing at the end of the study. Participants believed the more tickets they had, the greater their chances of winning the gift card.

After the offer was made, participants could either accept or reject the offer. If the participant accepted the offer, the ten tickets would be split in the manner proposed—the participant would receive two tickets and the (fictitious) proposer would keep eight tickets. If they rejected the offer, both the responder and the proposer would receive zero tickets. After making their decision, participants answered a series of questions about their perceptions and feelings towards the offer and their decision to accept or reject the offer (see below). Participants only played one round of the UG before completing the study in order to simplify the socially provocative situation and

¹The teammate or rival was a fictitious computer response designed to help implement several different experimental conditions for a larger study. These conditions made up two manipulations: a social-context manipulation and a group membership manipulation. Before beginning the study, participants were told they would be assigned to a team based on geographic location and a few demographic similarities. The teams were fictitious, computer responses. After being assigned to a team, team members got to know each other through responses on vignettes containing some social confrontations and aggressive behaviors (the social-context manipulation). Participants were always “randomly” selected to go last, so that they could read their teammates responses to the vignettes. In the pro-aggression condition, teammates condoned aggressive behavior to gain status. In the neutral-aggression condition, teammates neither agreed nor disagreed with the behavior. In the anti-aggression condition, teammates strongly opposed aggressive behavior to gain status. After responding to the vignettes, the participants competed in the UG against either a teammate or a rival (the group membership manipulation). Participants believed all of their teammates would see their responses to the vignettes as well as their decision in the UG and use this information to elect a team leader. The team leader would decide how to split the winnings should their team win the later, team versus team competition. However, this competition did not actually take place. The teams, responses to vignettes, and UG offers were all automated computer responses. Since these manipulations were outside of the context of this study, the results will be reported elsewhere.

eliminate confounding variables. At the start of the UG, participants answered a series of attention checks to make sure they understood the rules and instructions. These attention checks asked the participants how many tickets the proposer or responder would get if the responder accepted or rejected a theoretical offer. After completing three attention checks, the participants began the game.

Expectations. Upon making a decision to accept or reject the offer, participants reported how many tickets they were expecting to be offered from the proposer. Participants selected a number from 1 to 10 to represent the amount of tickets they expected.

Perceptions. After reporting the amount of tickets they expected, participants were asked to evaluate the proposer's offer. Participants were also asked to evaluate their responses to the proposer's offer. Participants rated their evaluations of the offer and their evaluations of their response to the offer on 7-point Likert scales. The scales included measures of aggression, unfairness, disrespect, and greed. Aggression was measured on a scale of (1) friendly to (7) aggressive, unfairness on a scale of (1) fair to (7) unfair, disrespect on a scale of (1) respectful to (7) disrespectful, and greed on a scale from (1) generous to (7) greedy.

After rating the proposer's offer, participants ranked in order of importance the features of the proposer's offer that influenced their decision as well as the features that influenced their response to the offer. Participants ranked their perceptions of offers and their responses to offers as fair/unfair, respectful/disrespectful, generous/greedy, and friendly/aggressive.

We used the data we collected to create composite, or weighted, scores for perceptions of the offer and responses to the offer. These scores were calculated by multiplying the raw score by the rank (reverse coded). For instance, to achieve a weighted score for perceptions of unfairness, a participant's reported score for their perceptions of the offer as unfair was multiplied by the place they placed fair/unfair on the ranking scale, which was reverse coded.

Emotional Ratings. We measured participants' feelings towards the offer with three, 7-point Likert scales. Participants reported how they felt on three items on 7 point scales: a) calm to bothered, b) upbeat to dejected, and c) happy to angry.

Statistical Analysis Strategy. To test our hypotheses, we conducted a statistical analysis using SPSS software (v23). First, we conducted regression analyses that tested the relationship between SES and expectations of offers. Second, we conducted mediation analyses using the PROCESS macro in SPSS (Model 4; v2.16, Hayes, 2013). In these analyses we examined if expected amount of offered tickets mediated the relationship between SES and a) degree to which individuals accepted or rejected offers (0 coded as accept and 1 coded as reject); b) perceptions of the offers; c) emotions experienced towards the offers. The mediation analyses in the present study moved beyond Baron and Kenny's (1986) causal step approach to test for statistical mediation.² The current study used a bootstrapping approach to provide a mean estimate

² The causal steps approach popularized by Baron and Kenny (1986) stipulates that there are four steps that need to be met in order to establish that mediation occurred. To establish that there is an effect that may be mediated, the first step requires showing that the independent variable is correlated with the dependent variable. The second step requires showing that the independent variable is associated with the mediator, while the third step must show the mediator affects the dependent variable. To establish full mediation—the mediator completely mediates the independent-dependent variable relationship—the fourth and final step should show that the effect of the independent variable on the dependent variable controlling for the mediator is zero. Despite the popularity of this method, there are some fundamental

of the indirect effect and 95% confidence interval (Hayes, 2009). The indirect effect is the product of the *a path* and *b path*, and measures the effect of the independent variable on the dependent variable through the mediator. For the bootstrapping estimation approach, a 95% confidence interval that does not contain zero indicates a significant mediation.

Preliminary Analyses

The majority of participants fell in the middle of the 10-point SES ladder ($M=5.34$), with 5.7% in the bottom quintile and 2.4% in the top quintile (see Figure 1). For parental income, 9.7% of participants had a combined parental income of less than \$20,000, while 7.1% of participants had parental incomes greater than \$200,000 (see Table 1). In terms of maternal education, 4.4% had some high school, 15.8% were high school graduates, 35.3% had some college, 28.7% had a four-year degree, and 15.8% of participants reported their mothers had an advanced degree (Masters or PhD).

flaws. For instance, Hayes (2009) states that the causal steps approach is the lowest in power. That is, if the independent variable's effect on the dependent variable is indirectly carried out by the mediator, the causal steps approach is the least likely to detect this mediation. Also, according to Hayes (2009), it is possible for the mediator to affect the relationship between the independent and dependent variable even if the independent and dependent aren't associated. Thus, even though the *c path* is not significant in all of our models, there is still possibility for a significant mediation.

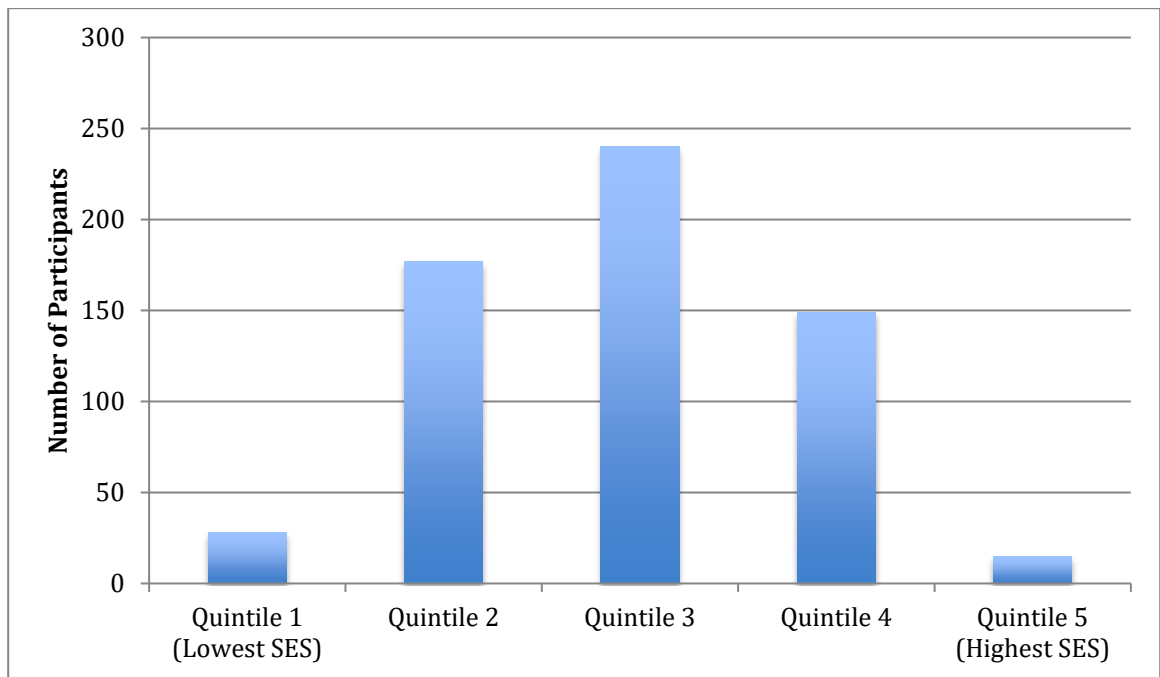


Figure 1. MacArthur Scale of Subjective Status.

This figure illustrates the number of participants in each quintile of the SES ladder.

Table 1. Comparison of Parental Income across Participants.

Parental income	Number of participants	Percent of participants
1. Less than \$20,000	59	9.7%
2. \$20,000 to \$29,000	51	8.4%
3. \$30,000 to \$39,000	53	8.7%
4. \$40,000 to \$49,000	66	10.8%
5. \$50,000 to \$59,000	54	8.9%
6. \$60,000 to \$69,000	46	7.6%
7. \$70,000 to \$79,000	39	6.4%
8. \$80,000 to \$89,000	41	6.7%
9. \$90,000 to \$99,000	20	4.9%
10. \$100,000 to \$149,000	84	13.8%
11. \$150,000 to \$200,000	43	7.1%
12. Greater than \$200,000	43	7.1%

$M=6.29, SD=3.51$

Results

Correlational Analyses. The independent variables—the SES Ladder, maternal education, and parental income—were analyzed to examine whether they correlated with the dependent variables and mediator. A bivariate correlational analysis revealed that the independent variables, the SES measures, were all positively correlated with each other (see Table 2). In addition, The SES Ladder showed a significant, positive correlation with the expected amount of offered tickets and the offer decision (see Table 2). The expected offer amount was also significantly and positively correlated with evaluations of the offer as unfair, disrespectful, greedy, and aggressive (see Table 3). After seeing and responding to the offer, participants reported their feelings towards the offer. All of the feelings were positively correlated with each other (see Table 4).

Table 2. Results of Correlational Analysis for Model 1

	1	2	3	4	5
(1) SES Ladder	-				
(2) Maternal Education	.15*	-			
(3) Parental Income	.27*	.34*	-		
(4) Expected Offer	.14*	-.07	.05	-	
(5) Offer Decision	-.06	-.02	-.05	.15*	-

* $p < .01$, ** $p < .05$

Table 3. Results of Correlational Analysis for Model 2

	1	2	3	4	5	6	7	8	9	10	11	12
(1) SES Ladder	-											
(2) Maternal Ed.	.15*	-										
(3) Parental Income	.27*	.33*	-									
(4) Expected Offer	.14*	-.07	.05	-								
(5) Unfair (raw)	-.13*	-.04	.08	.17*	-							
(6) Unfair (weighted)	-.06*	.02	.07	.09*	.57*	-						
(7) Disrespect (raw)	-.07	-.01	.07	.11*	.64*	.28*	-					
(8) Disrespect (weighted)	-.06	.02	.04	.1*	.27*	-.11*	.53*	-				
(9) Greed (raw)	-.06	-.01	.07	.1**	.59*	.27*	.62*	.33	-			
(10) Greed (weighted)	-.06	-.02	-.02	.03	.27*	-.1**	.28*	-.05	.41*	-		
(11) Aggression (raw)	-.02	.02	.2	.09*	.47*	.15*	.54*	.28*	.51*	.22*	-	
(12) Agg. (weighted)	.05	-.01	.05	-.03	-.06	-.34*	.05	-.02	.03*	-.24*	.29*	-

* $p < .01$, ** $p < .05$

Table 4. Results of Correlational Analysis for Model 3

	1	2	3	4	5	6	7
(1) Bothered	-						
(2) Dejected	.53*	-					
(3) Angry	.62*	.58*	-				
(4) Expected Offer	.14*	.09**	.16*	-			
(5) SES Ladder	.001	-.04	-.02	.14*	-		
(6) Maternal Education	-.03	-.03	-.01	-.07	.15*	-	
(7) Parental Income	-.01	.05	.09	.05	.27*	.34*	-

* $p < .01$, ** $p < .05$

SES and Expectations. We first examined the relationship between SES and expectations of offers in the UG. It was hypothesized that higher levels of SES would predict greater expectations of offer amount. To test this we conducted a simple linear regression analysis in which we regressed expectations on SES. As hypothesized, we found that for every unit increase on the SES Ladder, the expected amount of tickets increased by .09 ($R^2 = .02$, $B=4.02$, $F(1,607)=11.2$, $p<.01$).

Offer Decisions. Next we examined how these expectations of offers predicted downstream decisions to accept or reject offers. To test this, logistic mediation analyses were conducted using Model 4 of the PROCESS macro, where SES was the IV, expectations of offers served as the mediator, and the decisions to accept or reject offers was the DV. Our analyses revealed that the expected offer amount partially mediated the relationship between the SES Ladder and decisions to accept or reject the offer ($\omega=.03$, 95% CI [.01, .06]). As shown in Table 5, higher levels of SES predicted greater expectations of unfair offers, and these predicted more rejections of unfair offers.

Perceptions of unfair offers. In our next set of analyses we tested how expectations of offer amounts mediated the relationship between SES and perceptions of the unfair offer. To test this, mediation analyses were conducted using Model 4 of the PROCESS macro. The SES Ladder was our IV, expectations of offers served as the mediator, and perceptions of the offer (raw and weighted) were the DVs.

Unfairness. In this set of mediation analyses, perceptions of unfairness (raw) and unfairness (weighted) served as the DVs. Our analyses revealed that the expected offer amount partially mediated the relationship between the SES Ladder and raw

evaluations of the offer as unfair ($\omega=.18$, 95% CI [.01, .04]). As shown in Table 6, higher levels of SES predicted greater expectations of unfair offers, and these predicted higher perceptions of the offer as unfair (raw). There was no significant mediation effect of expectations for the SES Ladder-unfair (weighted) relation (see Table 6).

Disrespectful. In this set of mediation analyses, perceptions of disrespect (raw) and disrespect (weighted) served as the DVs. As shown in Table 6, our analyses revealed that there was no significant mediation effect of expectations for either the SES Ladder-disrespect (raw) or the SES Ladder-disrespect (weighted) relations.

Greedy. In this set of mediation analyses, perceptions of greed (raw) and greed (weighted) served as the DVs. As shown in Table 6, our analyses revealed that there was no significant mediation effect of expectations for either the SES Ladder-greed (raw) or the SES Ladder-greed (weighted) relations.

Aggressive. In this set of mediation analyses, perceptions of aggression (raw) and aggression (weighted) served as the DVs. As shown in Table 6, our analyses revealed that there was no significant mediation effect of expectations for either the SES Ladder-aggression (raw) or the SES Ladder-aggression (weighted) relations

Feelings towards unfair offers. In our final set of analyses we tested how expectations of offers mediate the relationship between SES and feelings towards the offer. To test this, mediation analyses were conducted using Model 4 of the PROCESS macro. The SES Ladder was our IV, expectations of offers served as the mediator, and feelings towards the offers were the DVs.

Bothered. In this set of mediation analyses, feelings of bother served as the DV. Our analyses revealed that there was a significant mediation ($\omega=.02$, 95% CI [.01, .05]).

As shown in Table 7, higher levels of SES predicted greater expectations of unfair offers, and these predicted higher feelings of bother.

Dejected. In this set of mediation analyses, feelings of dejection served as the DV. Our analyses revealed that there was a significant mediation ($\omega=.01$, 95% CI [.001, .03]). As shown in Table 7, higher levels of SES predicted greater expectations of unfair offers, and these predicted higher feelings of dejection.

Angry. In this set of mediation analyses, feelings of anger served as the DV. Our analyses revealed that there was a significant mediation ($\omega=.02$, 95% CI [.003, .04]). As shown in Table 7, higher levels of SES predicted greater expectations of unfair offers, and these predicted higher feelings of anger.

Maternal Education and Parental Income. We also tested all of the above analyses with maternal education and parental income as IVs. For the first set of logistic mediation analyses, expectations did not significantly mediate the maternal education-offer decision relation or the parental income-offer decision relation. In the second set of mediation analyses, expectations did not significantly mediate any of the relations between maternal education and perceptions of the offer. Expectations also did not significantly mediate any of the relations between parental income and perceptions of the offer. For the final set of mediation analyses, expectations did not significantly mediate the maternal education-feelings towards offer relation or the parental income-feelings towards offer relation.

Table 5. Results of Mediation Analyses for Model 1 with SES Ladder as the Independent Variable

Dependent Variable	<i>a path</i>			<i>b path</i>			<i>c' path</i>		
	<i>B</i>	<i>t</i>	<i>P</i>	<i>B</i>	<i>z</i>	<i>p</i>	<i>B</i>	<i>z</i>	<i>p</i>
Offer Decision	.09	3.35	<.01	.3	3.92	<.01	-.1	2.08	.038

Table 6. Results of Mediation Analysis for Model 2 with SES Ladder as the Independent Variable

Dependent Variable	a path			b path			c' path		
	<i>B</i>	<i>t</i>	<i>p</i>	<i>B</i>	<i>t</i>	<i>p</i>	<i>B</i>	<i>t</i>	<i>p</i>
Unfair (raw)	.09	3.35	<.01	.2	4.88	<.01	-.11	-3.91	<.01
Unfair (weighted)	.09	3.35	<.01	.66	2.4	.02	-	-	n.s.
Disrespectful (raw)	.09	3.35	<.01	.16	2.59	<.01	-	-	n.s.
Disrespectful (weighted)	.09	3.35	<.01	.6	2.82	<.01	-	-	n.s.
Greedy (raw)	.09	3.35	<.01	.09	2.78	<.01	-	-	n.s.
Greedy (weighted)	.09	3.35	<.01	-	-	n.s.	-	-	n.s.
Aggressive (raw)	.09	3.35	<.01	.09	2.29	.01	-	-	n.s.
Aggressive (weighted)	.09	3.35	<.01	-	-	n.s.	-	-	n.s.

Table 7. Results of Mediation Analysis for Model 3 with SES Ladder as the Independent Variable

Dependent Variable	a path			b path			c' path		
	<i>B</i>	<i>t</i>	<i>p</i>	<i>B</i>	<i>t</i>	<i>p</i>	<i>B</i>	<i>t</i>	<i>p</i>
Bothered	.09	3.35	<.01	.23	3.7	<.01	-	-	n.s.
Dejected	.09	3.35	<.01	.12	2.58	.01	-	-	n.s.
Angry	.09	3.35	<.01	.17	4.06	<.01	-	-	n.s.

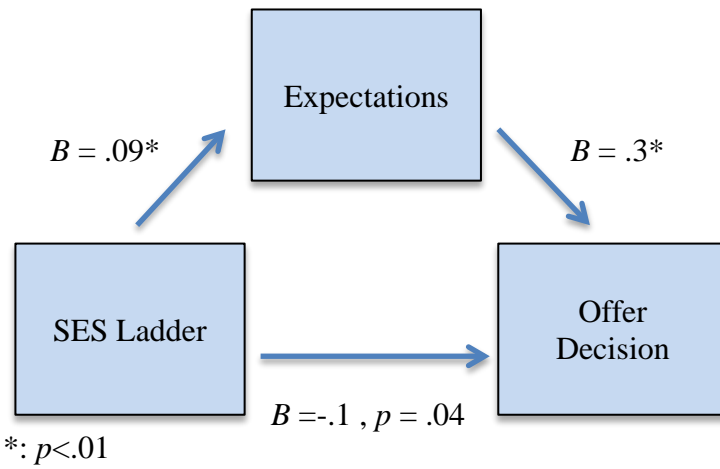


Figure 2. SES Ladder and offer decision mediation model.

This figure illustrates the relationship between the SES Ladder and decisions to accept or reject the offer as partially mediated by expectations.

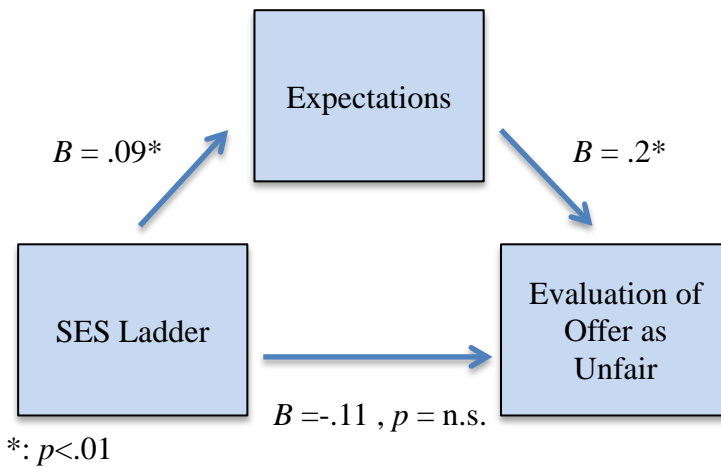


Figure 3. SES Ladder and evaluation of offer mediation model.

This figure illustrates the relationship between the SES Ladder and evaluations of the offer as unfair as mediated by expectations.

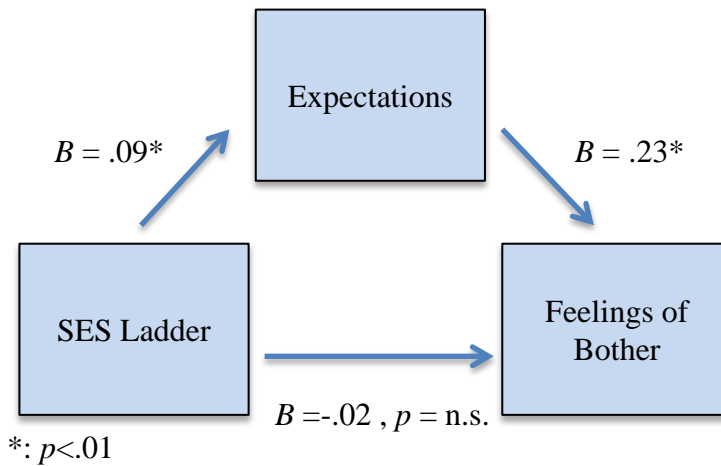


Figure 4. SES Ladder and feelings towards the offer mediation model.

This figure illustrates the relationship between the SES Ladder and bothered feelings towards the offer as mediated by expectations.

Discussion

The current study investigated whether and how expectations influence the relationship between SES and decisions, perceptions, and feelings in a socially provocative situation. Results revealed that, consistent with the first hypothesis, subjective status predicted expectations in the UG, such that as subjective SES rose, so did expectations. The second hypothesis was also supported in that expectations mediated the relationship between subjective SES and offer decisions. In regards to the third hypothesis, expectations only mediated the relationship between subjective status and perceptions of unfairness. Similarly, expectations mediated the relationship between subjective status and feelings (bothered, dejected, and angry). These findings support the entitlement hypothesis proposed by Hu, Cao, Blue, & Zhou (2014). The entitlement hypothesis stipulates that participants occupying low status will feel less entitled to fair offers, while high status participants will feel more entitled to fair offers. If expectations did indeed measure entitlement, then these findings also expand on system justification theory's hypothesis that low status individuals express depressed-entitlement relative to people with higher status who might experience elevated-entitlement (Jost & Banaji, 1994; Jost, Banaji, & Nosek, 2004). It also furthers Pelham and Hetts' (2001) work that indicated men experience elevated-entitlement in comparison with women, by suggesting there are differences in entitlement within men. In all cases, only models with subjective status were significant. Objective indicators of status failed to support any of the hypotheses, suggesting that subjective SES may measure entitlement better than objective SES.

There are two limitations in this study that can provide avenues for future research. The first limitation is that this study only looked at the role of expectations in men. Previous research has suggested that women experience depressed-entitlement based on their gender and the cultural beliefs associated with being a woman (O'Brien & Major, 2009). In addition to experiencing depressed-entitlement in comparison with men, women handle socially provocative situations in fundamentally different ways. For instance, women tend to aggress less frequently than men and primarily use aggressive tactics in the face of physical danger (Cross & Campbell, 2011). Since the UG is a physically safe situation, women may be less inclined to reject unfair offers if rejection is in any way a measure of aggression. In addition, Eisenegger, Naef, Snozzi, Heinrichs, and Fehr (2010) found that administering testosterone to women resulted in more generous offers in the UG. Other research with men has found contrasting results, that administering testosterone led men to propose less generous offers (Zak et al., 2009). In addition to influencing decisions in the UG, sex differences may influence entitlement. Future research might consider looking at entitlement's role in socially provocative situations across genders to determine what differences may or may not exist. The second limitation of this study is that it measured SES through questionnaires. Manipulating status might lead to different results. Recent research suggested priming participants to feel poor in the UG caused them to reject more offers because of fairness concerns (Bratanova, Loughnan, Klein, & Wood, 2016). These findings contrast the results of this study that suggested the higher one's SES, the more they expect in the UG. In other words, the higher one thinks they are in society, the more likely they are to feel entitled to certain allocations. This falls in line with

prevalent SJBs in the U.S.. Hence, the higher one thinks they are in society, the more likely they are to feel entitled to certain allocations. This falls in line with prevalent SJBs in the U.S.. In the U.S., examples of SJBs include the Protestant work ethic and the belief in individual mobility—the American dream (O'Brien & Major, 2009).

The American dream stipulates that through hard work, individuals can improve their social standing. Despite individual aspirations, the personal income gap has become substantially more unequal since the 1980s (Wodtke, 2016). In April of 2016, the then presidential candidate Donald Trump declared that the American dream had died (Voorhees, 2016). The results of this study can shed light on the so-called death of the American dream by suggesting that elevated-entitlement influences outcomes in unfair or socially provocative situations. Other studies have also found that elevated-entitlement promotes the status quo, helping higher-status individuals to maintain their status (e.g. Ball & Eckel, 1996; Ball, Eckel, Grossman, & Zane, 2001; Hu, Cao, Blue, & Zhou, 2014; Hu et al., 2016; Pelham & Hetts, 2001). Elevated entitlement assumes that higher-status individuals feel entitled to greater allocations, possibly believing that they earned those allocations (Hoffman & Spitzer, 1985). If higher-status individuals feel like they earned their allocations, this might affect their generosity and willingness to even out the economic playing field (Piff, Kraus, Côte, Cheng, & Keltner, 2010). In this study, expectations mediated the relationships between subjective SES and offer decisions, perceptions of the offer as unfair, and feelings towards the offer. This suggests that expectations, feelings of entitlement, may influence outcomes in a socially provocative situation.

References

- Adler, N. E., Epel, E. S., Castellazzo, G., & Ickovics, J. R. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy white women. *Health Psychology, 19*(6), 586-592
- Albrecht, K., von Essen, E., Fliessbach, K., & Falk, A. (2013). The influence of status on satisfaction with relative rewards. *Frontiers in Psychology, 4*, 1-9.
- Babcock, L., & Loewenstein, G. (1997). Explaining bargaining impasse: The role of self-serving biases. *Journal of Economic Perspectives, 11*, 122-133.
- Ball, S. B., & Eckel, C. C. (1996). Buying status: Experimental evidence on status in negotiation. *Psychology & Marketing, 13*, 381-405.
- Ball, S. B., Eckel, C. C., Grossman, P. J., & Zame, W. (2001). Status in markets. *The Quarterly Journal of Economics, 116*, 161-188.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychology research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology, 11*, 142-163.
- Brañas-Garza, P., Espín, A. M., Exadaktylos, F., & Herrmann, B. (2014). Fair and unfair punishers coexist in the Ultimatum Game. *Scientific Reports, 4*, 6025.
- Bratanova, B., Loughnan, S., Klein, O., & Wood, R. (2016). The rich get richer, the poor get even: Perceived socioeconomic position influences micro-social distributions of wealth. *Scandinavian Journal of Psychology, 57*(3), 243-249.
- Calvillo, D. P., & Burgeno, J. N. (2015). Cognitive reflection predicts the acceptance of unfair, ultimatum game offers. *Judgment and Decision Making, 10*(4), 332-341.
- Campbell, W. K., Bonacci, A. M., Shelton, J., Exline, J. J., & Bushman, B. J. (2004). Psychological entitlement: Interpersonal consequences and validation of a self-report measure. *Journal of Personality Assessment, 83*, 29-45.
- Cross, C. P., & Campbell, A. (2011). Women's aggression. *Aggression and Violent Behavior, 16*, 390-398.
- Davies, J. B., Sandstorm, S., Shorrocks, A., & Wolff, E. N. (2009). The global pattern of household wealth. *Journal of International Development, 21*, 1111-1124.
- De Botton, A. (2004). *Status Anxiety*. New York, NY: Vintage.

- Dubow, E. F., Boxer, P., & Huesmann, L. R. (2009). Long-term effects of parents' education on children's education and occupational success: Mediation by family interactions, child aggression, and teenage aspirations. *Merrill Palmer Q (Wayne State University Press)*, 55(3), 224-249.
- Eisenegger, C., Naef, M., Snozzi, R., Heinrichs, M., & Fehr, E. (2010). Prejudice and truth about the effect of testosterone on human bargaining behavior. *Nature*, 463, 356-359.
- Erola, J., Jalonen, S., & Lehti, H. (2016). Parental education, class and income over early life course and children's achievement. *Research in Social Stratification and Mobility*, 44, 33-43.
- Espín, A. M., Exadaktylos, F., Herrmann, B., & Brañas-Garza, P. (2015). Short- and long-run goals in ultimatum bargaining: Impatience predicts spite-based behavior. *Frontiers in Behavioral Neuroscience*, 9, 214.
- Giatti, L., Camelo, L. V., Rodrigues, J., De Castro, F., & Barreto, S. M. (2012). Reliability of the MacArthur scale of subjective social status – Brazilian Study of Adult Health (ESLA- Brasil). *BMC Public Health*, 12(1096), 1-7.
- Güth, W., (1995). On ultimatum bargaining experiments—A personal review. *Journal of Economic Behavioral Organization*, 27, 329-344.
- Güth, W., Schmittberger, R., & Schwarze, B. (1982) An experimental analysis of ultimatum bargaining. *Journal of Economic Behavior and Organization*, 3, 367-388.
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76(4), 408-420.
- Hayes, A. F. (2013). Introduction to mediation, moderation and conditional process analysis: A regression-based approach. New York: NY: The Guilford Press.
- Henrich, J., McElreath, R., Barr, A., Ensminger, G., Barret, C., Bolyanatz, A., Cardenas, J. C., ... Ziker, J. (2006). Costly punishment across human societies. *Science*, 312(5781), 1767-1770.
- Hoffman, E., & Spitzer, M. L. (1985). Entitlements, rights and fairness: An experimental examination of subjects' concepts of distributive justice. *The Journal of Legal Studies*, 14(2), 259-297.
- Hu, J., Blue, P. R., Yu, H., Gong, X., Xiang, Y., Jiang, C., & Zhou, X. (2016). Social status modulated the neural response to unfairness. *Social Cognitive and Affective Neuroscience*, 11, 1-10.
- Hu, J., Cao, Y., Blue, P. R., & Zhou, X. (2014). Low social status decreases the neural salience of unfairness. *Frontiers in Behavioral Neuroscience*, 8, 1-12.

- Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology*, 33, 1-27.
- Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology*, 25(6), 881-919.
- Jost, J. T., Pelham, B. W., Sheldon, O., & Sullivan, B. N. (2003). Social inequality and the reduction of ideological dissonance on behalf of the system: Evidence of enhanced system justification among the disadvantaged. *European Journal of Social Psychology*, 33, 13-36.
- Leubsdorf, C. P. (2016, November 4). Carl Leubsdorf: Two disturbing senses of entitlement. *Omaha World-Herald*. Retrieved from http://www.omaha.com/opinion/carl-leubsdorf-two-disturbing-senses-of-entitlement/article_61b0290e-ee46-5312-b9ce-2a18c8cd684e.html
- Major, B. (1994). From social inequality to personal entitlement: The role of social comparisons, legitimacy appraisals, and group membership. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (pp. 293-355). Cambridge, MA: Academic Press, Inc..
- Mayer, S.E. (1997). *What Money Can't Buy: Family Income and Children's Life Chances*. Cambridge, MA: Harvard University Press.
- Mercy, J. A., & Steelman, L. C. (1982). Familial influence on the intellectual attainment of children. *American Sociological Review*, 47(4), 532-542.
- Nowak, M. A., Page, K. M., & Sigmund, K. (2000). Fairness versus reason in the ultimatum game. *Science*, 289, 1773-1775.
- O' Brien, L. T., & Major, B. (2009). Group status and feelings of personal entitlement: The roles of social comparison and system-justifying beliefs. In J. T. Jost, A. C. Kay, & H. Thorisdottir (Eds.), *Series in political psychology: Social and psychological bases of ideology and system justification* (pp. 427-443). New York, NY: Oxford University Press, Inc..
- Ochs, J., & Roth, A. E. (1989). An experimental study of sequential bargaining. *The American Economic Review*, 29(3), 355-384.
- O' Keefe, J. (2016, November 9). 6 ways you can help marginalized Americans right now. *Bustle*. Retrieved from <https://www.bustle.com/articles/194342-6-ways-you-can-help-marginalized-americans-right-now>
- Pelham, B. W., & Hetts, J. J. (2001). Underworked and overpaid: Elevated entitlement in men's self pay. *Journal of Experimental Social Psychology*, 37, 93-103.

- Pfister, H. R., & Böhm, G. (2012). Responder feelings in a three-player three-option ultimatum game: Affective determinants of rejection behavior. *Games*, 3, 1-29.
- Piff, P. K. (2014). Wealth and the inflated self: Class, entitlement, and narcissism. *Personality and Social Psychology Bulletin*, 40, 34-43.
- Piff, P. K., Stancato, D. M., Cöte, S., Mendoza-Denton, R., & Keltner, D. (2012). Higher social class predicts increased unethical behavior. *Proceedings of National Academy of Sciences*, 109, 4086-4091.
- Pillutla, M. M., & Murnighan, J. K. (1996). Unfairness, anger, and spite: Emotional rejections of ultimatum offers. *Organizational Behavior and Human Decision Processes*, 68(3), 208-224.
- Prokop, A. (2016, November 7). Why the Electoral College is the absolute worst, explained. *Vox*. Retrieved from <http://www.vox.com/policy-and-politics/2016/11/7/12315574/electoral-college-explained-presidential-elections-2016>
- Raihani, N. J., & Bshary, R. (2015). The reputation of punishers. *Trends in Ecology & Evolution*, 30, 98-103.
- Sanfey, A. G., Rilling, J. K., Aronson, J. A., Nystrom, L. E., Cohen, J. D. (2003). The neural basis of economic decision-making in the ultimatum game. *Science*, 300(5256), 1755-1758.
- Selten, R. (1965). "Spieltheoretische behandlung eines oligopoly models mit nachfragetrageheit." *Zeitschrift fur Gesamte Staatswissenschaft*, 121, 301-324.
- van der Toorn, J., & Jost, J. T. (2014). Twenty years of system justification theory: Introduction to the special issue on "ideology and system justification processes". *Group Processes & Intergroup Relations*, 17(4), 413-419.
- van 't Wout, M., Kahn, R. S., Sanfey, A. G., Aleman, A. (2006). Affective state and decision-making in the ultimatum game. *Experimental Brain Research*, 169, 564-568.
- Voorhees, S. (2016, April 10). Donald Trump: 'The American Dream is dead, I'm going to make it bigger and better'. *Time Warner Cable News*. Retrieved from <http://www.twcnews.com/nys/rochester/news/2016/04/10/donald-trump-rally-rochester.html>
- Wilkinson, R., & Pickett, K. (2009). *The spirit level: Why greater equality makes societies stronger*. New York, NY: Bloomsbury.
- Witte, T. H., Callahan, K. L., & Perez-Lopez, M. (2002). Narcissism and anger: An exploration of underlying correlates. *Psychological Reports*, 90, 871-875.

- Wodtke, G. T. (2016). Social class and income inequality in the United States: Ownership, authority, and personal income distribution from 1980 to 2010. *American Journal of Sociology*, *121*(5), 1375-1415.
- Yamagishi, T., Horita, Y., Mifune, N., Hashimoto, H., Li, Y., Shinada, M., Inukai, K., ... Simunovic, D. (2012). Rejection of unfair offers in the ultimatum game is no evidence of strong reciprocity. *Proceedings of the National Academy of Sciences*, *109*, 20364-20368.
- Yamagishi, T., Horita, Y., Takagishi, H., Shinada, M., Tanida, S., & Cook, K. S., 2009. The private rejection of unfair offers and emotional commitment. *Proceedings of the National Academy of Sciences*, *106*, 11520-11523,
- Zak, P. J., Kurzban, R., Ahmadi, S., Swerdloff, R. S., Park, J., Efremidze, L., Redwine, K., ... Matzner, W. (2009). Testosterone administration decreases generosity in the ultimatum game. *PLoS One*, *4*(12), e8330.
- Zink, C. F., Tong, Y., Chen, Q., Bassett, D. S., Stein, J. L., & Meyer-Lindenberg, A. (2008). Know your place: neural processing of social hierarchy in humans. *Neuron*, *58*(2), 273-283.