Abstract: Other-regarding behavior in decision-making under risk remains relatively unexplored in experimental economics. To extend research in this particular direction, we design an experiment to test whether individuals’ risk preferences changes when their status (relative wealth distribution) varies. In a simple experimental design we study subjects’ risk preferences where we vary subjects’ status while keeping their absolute wealth unchanged. Results from the experiment provide evidence that people behave differently in making decisions under risk when they are standing at different points in the relative distribution of wealth. The experimental evidence supports a behavioral argument by Robson (1992) that status affects willingness to bear risk.

JEL Classification: D8, C9

Keywords: Status, Risk Preference, Experiment, Relative Wealth

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1 We wish to thank Arthur Robson and seminar participants at previous Economic Science Association and Western Social Science Association conference meetings for helpful comments on earlier versions of this paper.

2 Corresponding Author, Department of Environmental Studies and International Hurricane Research Center, Florida International University, Miami, FL 33199, USA. Tel: (305) 348-7146, Fax: (305) 348-1761, Email: mozumder@fiu.edu.

3 Department of Economics, Walker College of Business, Appalachian State University, Boone, NC 28608.

4 Department of Economics, University of New Mexico, Albuquerque, NM 87131, USA.
Most economic models of individual behavior are still based on the assumption that an individual’s utility depends on their own level of consumption, and not on relative consumption. But recently, other-regarding behavior has been increasingly incorporated into a variety of experimental economics studies (Bohnet and Frey 1999). As reviewed by Bolton et al. (2007), most of these experimental studies address issues like altruism, fairness and cooperative actions under incentives to free-ride. However, other-regarding behavior in the specific context of decision-making under risk remains relatively unexplored in experimental economics. Given this gap in the literature, and motivated by the theoretical work of Robson (1992), the focus here is on the role of other-regarding concerns in making risky decisions. Subjects’ other-regarding concerns in decision making under risk are captured through the effect of status, as defined by the relative distribution of wealth.

Economic inequality in the U.S. today is greater than at any time since the New Deal (e.g., Piketty and Saez, 2003). Much-discussed issue of the rising inequality provides a timely policy backdrop to our investigation. The basic hypothesis of interest here is that people are

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5 For updated data from Piketty and Saez (2003), see Piketty and Saez (2007) and also through 2005 available at: http://elsa.berkeley.edu/~saez/ (site accessed January 25, 2008). And, of course, the potential distributional consequences of the increasing reliance on lottery income in many states in the U.S. have been widely discussed (see Coughlin and Garrett, 2008 and Clotfelter and Cook, 1989). The behavioral question is whether the higher propensity to purchase lottery tickets is due to misunderstanding the odds, a function of education, or the desire to improve one’s position in the distribution of income, a function of interpersonal comparisons.
concerned about relative status, and that this concern influences their risk preferences.\textsuperscript{6} Specifically, it is expected that relatively low status individuals are more likely to undertake risk prone (less risk averse) economic choices. This hypothesis is investigated using data from an experiment designed to elicit individual risk preferences. In this experiment the participants make decisions over lotteries where initial wealth levels are varied as treatments. In the baseline setting, all individuals are provided the same initial wealth (endowment) while in the treatment setting the subjects receive unequal endowments. The experimental design allows investigation of individuals’ risk preferences where the subjects’ relative wealth distribution has been changed but their absolute wealth remains unchanged. Consistent with Robson’s (1992) equilibrium model of wealth distribution, results indicate that relative wealth (status) does affect willingness to bear risk.

1. Background and Related Literature

The economic literature on relative status effects is quite rich. A number of studies have focused on the effect of status inequality on individual perceptions of well-being, including a series of investigations in the 1970’s (Easterlin 1973; Scitovosky 1976; Kapteyn and Van Praag 1976). Later, Easterlin (1995) argued that happiness is a function of relative

\textsuperscript{6} Corneo and Piketty (1998), in the editorial of a special issue on “The Economics of Status” in Journal of Public Economics, argue that “The interest in the notion of status derives from the common observation that agents compare themselves to others and care about their relative standing, e.g., they feel happier if they turn out to be richer, smarter, or better educated than their neighbors and brothers-in-law”.

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wealth.\(^7\) In addition to economics, sociology, psychology, anthropology and behavioral ecology literature also support the key insight that relative material payoffs affect individuals’ well-being and behavior (Fehr and Schmidt 1999).\(^8\)

Though commonly overlooked in mainstream economics, many economists (including Smith, Mill, Marshall, Pigou, Keynes, Veblen and Friedman) have underscored positional concerns in economic behavior (see the review provided by McAdams 1992). Veblen (1899) and Duesenberry (1949) argued that people have a common aspiration for higher status and individuals gain mental satisfaction from being better-off than others and experience discomfort when they see others doing better. Friedman and Savage (1948) argued that an individual’s risk taking behavior varies with the level of wealth. In arguing for a sigmoid utility function (an S-shaped function in which an inflection point separates the concave and

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\(^7\) The Easterlin paradox refers to the fact that at macro level average happiness remained unchanged over time in developed countries despite their rapid increase in per-capita real GNP. Clark et al. (2007) argue that consideration of ‘relative income’ in the utility function can potentially explain this paradox. Oswald (1997) provides a review of studies claiming that self-reported happiness is more sensitive to relative income than absolute income.

\(^8\) Fehr and Schmidt (1999) note that people resist inequitable outcomes. Loewenstein et al. (1989) estimate a utility function based on a subject’s stated preference for status concern. Behavioral ecologists and anthropologists document a number of studies that report inequality aversion for a variety of animal species. Brosnan (2006) provides a review of studies that focused on ‘inequality aversion’ by nonhuman species (e.g. capuchin monkeys and chimpanzees) to argue for the evolutionary origin of inequality aversion.
convex part of the utility function), they suggest that at a lower level of wealth a person may take a gamble that she would avoid at a higher level of wealth.\footnote{Kuznar and Frederick (2003) argue that sigmoid utility originates from scarcity of the natural resource assets we are dependent on. They argue that both ecological and social dimensions of value under risk give rise to a sigmoid utility function.}

However, more recently economists are showing increasing interest in studying relative status concerns (e.g., Samuelson, 2004; Hopkins and Kornienko 2004). There are numerous investigations in microeconomics and experimental economics on other-regarding behavior (e.g., Hoffman et al. 1996; Ferraro et al., 2003).\footnote{Based on national survey and census data, Luttmer (2005) finds that a neighbor’s income had a significant negative effect on a household’s satisfaction, and that this effect was similar in size to the positive effect from their own income. See Bolton et al. (2007) for a review of experimental studies testing the validity of a variety of other-regarding behavior.} For example, Hong and Bohnet (2007) provide experimental evidence that people with lower status (defined in terms of sex, race, age and religion) show inequality aversion while people with higher status dislike risk-taking (e.g. tend to avoid of being betrayed in the trust game that portrays trusting someone as a risky choice).

From an evolutionary perspective, Robson (1995) suggests that willingness to bear risk may be generated from the strategic behavior of a status-seeking agent. To investigate the evolutionary roots of risk-taking behavior, a number of studies also focused on nonhuman species (e.g. Battalio et al. 1985; Possingham 1990). Foraging models also suggest that the energy state (which can be thought of as equivalent to status) of the forager can affect its risk-sensitive foraging strategy (Barkan 1990). As Real and Caraco (1986) put it, in common
economic analysis the prime focus is on what should be included in an agent’s utility function and how various attributes be combined and weighted to predict choices that maximize utility under relevant constraints. However, from an evolutionary perspective an agent’s preferences are related to survival probability and evolutionary fitness (assumes that utility function is isomorphic in fitness). This implies that decisions under uncertainty have to be made in a way that increases the survival potential of the gene pool to avoid the risk of extinction and so decisions that enhance survival potential reign over time in the long evolutionary chain. If status is considered as an informative signal of survival fitness then, the evolution of risk preferences may be an unexpected outcome of status seeking behavior (Robson 2001).

Status-induced, risk-taking behavior can be linked with prospect theory (Kahneman and Tversky 1979), which advocates for a reference-dependent representation of risk preferences. In prospect theory, the commonly considered reference point is related to the current state of the individual decision-maker (e.g. gain space versus loss space) but these reference points can also be related to other psychologically relevant frames (e.g. interpersonal comparison that defines one’s status). Neilson (2006) notes that initial wealth can be considered as a point of reference, and status-induced risk taking can be represented as a generalization of prospect theory. Frank and Sunstein (2001) suggest that people care about relative position just not only for envy, status and reputation but because it sets a frame of reference that guide our social and economic activities. Loewenstein et al. (1989) also discuss the linkage between interpersonal concerns, decision-making under uncertainty and prospect theory. Calculating the risk-money trade-off precisely is at the core of many safety related public policy issues, however, there is a dearth of evidence addressesing this psycho-social aspect of risk preference and has also been collected in a consequential, incentive compatible
This research attempts to address this gap by investigating the effect of status in individual decision-making under risk in an experimental framework with risk-sensitive salient payoffs.

2. Experimental Design

In our experiment, subjects are provided with an initial wealth endowment and twenty lottery tickets. Subjects are asked to state their willingness to accept (WTA) compensation for selling a lottery ticket in each of twenty separate cases. The possible payoffs to each individual subject from winning the lottery are announced (not winning pays zero in all cases). The payoffs are in lab dollars and the exchange rate between lab dollars and U.S. dollars was pre-announced (10 lab dollar is equivalent to 1 US dollar). The probability of winning the lottery varied over the twenty lottery tickets from 0.10 to 1 with increments of 0.10. The order of the lotteries was randomized for each session.

The experimental design is provided in Table 1. Treatments are labeled T₁ and T₂. The main treatment variable is equal versus unequal endowment of subjects’ initial wealth.

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For instance, Hill and Buss (2007) recently provide survey evidence that envy and positional bias are two adaptation mechanisms of humans’ ability to survive competition. However, Lowenstein, et al. (1989) note that emotions critical to risk taking in an interpersonal context are unlikely to be evoked with the same intensity in hypothetical surveys.

Subjects were recruited from upper level undergraduate classes at the University of New Mexico. During recruitment, subjects were informed about the earnings range ($4-$28) and the time length of the experiment session (30-45 minutes). An excerpt from a sample copy of the instructions is provided in Appendix A.
(considered as proxy for status). We use different ranges and levels of initial wealth. In the various sub-treatments of the $T_1$ group all subjects are provided the same initial endowment. In the sub-treatment $Equal 1$ all subjects are given 40 ($4), and in the sub-treatment $Equal 2$ all subjects are given 120 lab Dollars ($12). In addition to this initial endowment all subjects (in $Equal 1$ and $Equal 2$) received the same 20 lottery tickets. In $T_2$ we divided the subjects into a high status group and a low status group. Under $T_2$ treatment, in the sub-treatment $Unequal 1$, the high status group received an initial endowment of 120 lab dollars ($12) and the low status group has received an initial endowment of 40 lab dollars ($4). In the sub-treatment $Unequal 2$ under $T_2$, the high status group received an initial endowment of 100 lab dollars ($10) and the low status group has received an initial endowment of 60 lab dollars ($6). In all cases, subjects were informed publicly about the initial endowment and that they all received the same 20 lottery tickets.

We use a between subjects design, to avoid order effects that may arise with a within subjects design, and follow a randomized assignment in which the subjects from our pool were randomly assigned to a treatment. Further, in $T_2$ the assignment to the high or low status group was done via a random draw.\footnote{Following Robson (1992) we assume that status is derived from the distribution of wealth but acknowledge that there are alternative ways of status formation, which also can be endogenous in nature. However, status can be also exogenous and random since some societies identify status with accidents of birth while some others identify status with acquired and/or inherited wealth (Robson 2001).} Each subject drew an index card, when they arrived for the session, with a number from one to the number of subjects in the session. The low wealth status was assigned to those drawing an odd number. The assigned status was announced to
the subjects publicly as the session began. Each subject participated in only one session. The
difference in wealth (status) is made salient by providing significant spread in initial
endowment in the status treatment (T_2). The initial endowment, which represents a significant
fraction of the potential payoffs to the subjects, is not simply a show up fee since it is an
integral part of the experiment setting.

As implied in the underlying theoretical model of Robson (1992), all decisions made
by subjects were in the positive, or gain, space. Each subject was asked to make 20 decisions
reporting their WTA values to sell 20 different lotteries (with same payoffs but different
probabilities). Eight of the lotteries were used to calculate final payoffs and these eight
lotteries were selected by repeated rolls (by a subject) of a 20-sided die. The selection took
place after all subjects has recorded their WTA values.\footnote{Using eight lotteries allowed a higher cash payoff per lottery while allowing us to stay in budget. With 20 lottery decisions, we felt that drawing only one (as is sometimes done) would make each of the 20 decisions seem relatively unimportant.} A 10-sided die was used to determine the outcomes from the lotteries. For example, suppose the lottery in question has a 30\% chance to win 10 lab dollars, if the roll of the 10-sided die results in a number 1, 2, or 3 those subjects who did not sell that ticket win 10 lab dollars. If the resulting number is 4 or greater then the payoff is 0 lab dollars. All choice decisions and outcomes were recorded on a separate sheet given to each subject along with the written instructions.

To induce truthful revelation of the selling prices of lotteries we employ the BDM
(Becker-DeGroot-Marshak, 1963) mechanism.\footnote{The BDM mechanism has been shown to be incentive compatible in the laboratory (Bohm et al., 1997) and also to impose relatively low cognitive costs on subjects (Irwin et al., 1998).} In our application of the BDM mechanism
the subjects report their WTA values for the lottery tickets. A random buying price is then
drawn from a bingo cage containing balls numbered 1 through the number of the highest
payoff in the lottery. If the price drawn is greater than or equal to the subject’s WTA value,
then the subject sells the lottery at the price written on the bingo ball. If the price drawn is less
than the subject’s WTA value, she does not sell the lottery ticket but keeps it to play the
lottery game.

For any given session, subjects recorded their WTA values for all 20 of their lottery
tickets. Then the bingo cage was spun 20 times (with replacement) to obtain the random
buying price for each of the lottery tickets. The random buying price ranged from 0 to the
winning outcome of lotteries. The tickets that were not sold were meant to be played in the
lottery game. For lottery tickets that had been sold, the subjects received the buying price
(obtained via the bingo cage). For the unsold lottery tickets, a 10-sided die was rolled to
determine whether the subject won the lottery or not.

Table 2 provides the definitions and descriptive statistics for all dependent and
explanatory variables used in the analysis. To test the effect of status on a subject’s

In applying the BDM mechanism, each ball in the bingo cage represents prices in lab dollars
from 1 through the number of the highest payoff. That is, if the highest pay-off the lottery was
10 lab dollars in a particular session, we kept 10 balls in the bingo cage. We conducted
preliminary trials in each session to explain how the BDM works, and illustrate the link
between revealing true WTA values and payoffs.

16 Subjects were informed they could post a price of zero if they wished to sell their ticket
with certainty and a price above the highest payoff if they wished to not sell.
willingness to accept (WTA), we ran the following specifications. First we ran regressions on the data collected through the unequal status treatment group (T2) as stated in equations 1 and 2.

\[
WTA = \alpha_1 + \beta_1 (EV) + \gamma_1 (EV)^2 + \delta_1 (LOW_{EV}) + \chi_1 (LOW_{EV}^2) + \varepsilon_1
\]

\[
RP = \alpha_2 + \beta_2 (EV) + \gamma_2 (EV)^2 + \delta_2 (LOW_{EV}) + \chi_2 (LOW_{EV}^2) + \varepsilon_2
\]

The interactive variable, \(LOW_{EV}\) is defined as \((EV) \times LOW\) and \(LOW_{EV}^2\) is defined as \((EV)^2 \times LOW\), where LOW is a dummy variable indicating low status (0 for high status and 1 for low status). EV stands for expected value of the lottery. The dependent variable used in Equation 1 is willingness to accept (WTA) and in Equation 2 is the risk premium (RP, where \(RP=WTA-EV\)).

Lastly, to separate the status effect from any potential wealth effect we ran regressions 1 and 2 on those subjects that received 40 lab dollars and 120 lab dollars as initial the endowment. Equation 3 and 4 represent these specifications for subjects with initial endowment of 40 lab dollars. The interactive variable, \(UNEQUAL_{EV}\) is defined as \((EV) \times UNEQUAL\) and \(UNEQUAL_{EV}^2\) is defined as \((EV)^2 \times UNEQUAL\), where UNEQUAL is a dummy variable indicating the unequal status (0 for equal status and 1 for unequal status).

\(^{17}\) A subject’s risk preference is associated with the curvature of the utility function. A linear utility function represents a risk neutral individual while a convex (concave) utility function represents a risk preferring (risk averse) individual. Our empirical specifications allow testing whether the subject is risk neutral versus risk sensitive. These specifications are based on a Taylor Series approximation of the utility function and are somewhat similar to Harrison (1986).
Similarly equation 5 and 6 represent the above specifications for subjects with initial endowment of 120 lab dollars.

\[ WTA_{ENDOWMENT=120} = \alpha_5 + \beta_5(EV) + \gamma_5(EV)^2 + \delta_5(UNEQUAL_{EV}) + \chi_5(UNEQUAL_{EV^2}) + \epsilon_5 \]  

\[ RP_{ENDOWMENT=120} = \alpha_6 + \beta_6(EV) + \gamma_6(EV)^2 + \delta_6(UNEQUAL_{EV}) + \chi_6(UNEQUAL_{EV^2}) + \epsilon_6 \]

Note that these are subjects that received the same initial endowment (40 lab dollars or 120 lab dollars) with either equal or unequal status relative to their peers. Results of these specifications are reported in Tables 3 and 4. Random-effects GLS models are used to control for clustering of errors at the individual subject level.

3. Experimental Results

Weiss and Fershtman (1998) correctly put that while wide range of evidence suggest that individuals care about social standing, these considerations need to be empirically validated. In that pursuit, our objective in this experiment is to test the proposition that an individual’s willingness to bear risk is influenced by his/her status (relative wealth). In the experimental treatment, this difference in status is induced via the initial wealth endowment provided at the start of the experiment. As we see in Table 3, the willingness to accept (WTA) value for subjects with low status is higher (Models 1, 2) since the variable interacting status with \( EV^2 (LOW_{EV}^2) \) is positive and statistically significant. In Models 3 and 4, the variable interacting status with \( EV^2 (LOW_{EV}^2) \) is negative and significant implying that the risk premium (RP) is less for low status subjects. However, the dummy variable interacting status with \( EV (LOW_{EV}) \) is not significant in these models. Combined together, results from the WTA and RP regressions in Table 3 indicate that when subjects are assigned with unequal
status, those who are assigned with low status exhibit more risk prone (or less risk averse) behavior than those with high status. Thus we provide evidence of risk taking behavior being affected by status.

However, it can be argued that this evidence may be due to the confounding factor contributed by the wealth effect since subjects are endowed with different levels of initial wealth. To separate the status effect from any potential wealth effect, we ran the regressions on those subjects that received 40 lab dollars and 120 lab dollars as initial endowment. These subjects received the initial endowment (either 40 lab dollars or 120 lab dollars) with either equal or unequal status with their peers. This allows us to compare risk taking behavior of subjects endowed with 40 lab dollars while their peers had the same endowment (in $T_1$) and while their peers had a higher endowment ($T_2$). In a similar way, we can compare the risk preference of subjects that are endowed with 120 lab dollars while their peers had the same endowment ($T_1$) and while their peers had a lower endowment ($T_2$). Considering the statistical significance of status interacting dummy variables, regression results in Table 4 (Models 5 and 7) show that when subjects belong to the low status group, they prefer risk (less risk averse with higher WTA and lower RP) compared to when they belong to equal status even when the initial endowment is exactly the same (40 lab dollars). On the other hand, Models 6 and 8 in Table 4 provide evidence that when subjects belong to high status, they are more risk averse (with lower WTA and higher RP) compared to when they belong to equal status even when the initial endowment is exactly the same (120 lab dollars).

In almost all regression results reported in Table 4 and 5, subjects’ WTA values and risk premiums are positively and significantly correlated with expected value (EV) of the lotteries. This provides some measure of confidence that subjects understand the nature of the
risk in the experimental setting, and demonstrates a pattern in risk preferences that can be linked to assigned status.\textsuperscript{18} Thus our experimental evidence supports the hypothesis that an individual’s risk preference (as represented by the WTA value and risk premium) is affected by status.

4. Discussion and Conclusions

As social beings, people participate in a variety of economic activities within their social reference group. As income and wealth of an agent falls behind compared to others in that reference group, it may prompt the agent to take risky gambles as an adaptation strategy to catch up with that reference group. In the highly stylized world of a lab experiment, where status is induced, our results provide supportive evidence for the argument that status affects willingness to bear risk. More specifically, the experimental evidence indicates that individuals with higher status exhibit greater risk aversion, which is consistent with the sigmoid (S-shaped) utility curve proposed by Friedman and Savage (1948). The finding also supports Robson’s (1992) argument that utility is convex in status.\textsuperscript{19}

\textsuperscript{18} Visicusi (1989) suggests that often subjects do not consider objective probabilities fully informative. Rather they combine stated risk information with their prior risk beliefs in a Bayesian Fashion to form their posterior probabilities that guide their behavior. Subsequently, Visicusi and Evans (2006) propose the notion of behavioral probability (which is different from posterior probability) to explain decisions that are guided by behavioral anomalies that are under or over sensitive to some key information.

\textsuperscript{19} Utility convex in status implies increasing marginal utility from an equal distance in status promotion (i.e., being the first over second is more gratifying than being the second over third).
The finding also provides supportive evidence for evolutionary explanation of risk-taking behavior. In an evolutionary sense, human beings have evolved through taking riskier options in order to survive. The long evolutionary process may have generated the attitudes to risk that are the basis of strategic behavior in a society with heterogeneous status. The genetic construct in the human body is likely to influence our risk-taking behaviors as we fall behind in the ladder of status. Using an evolutionary model, Robson (1996) shows that males tend to choose more risky lotteries when they are chosen (by females) according to the relative wealth criteria. On the other hand risk aversion is likely to emerge from the ‘self-preservation’ behavior of higher status group (Karni and Schmeidler 1986). Humans have spent relatively much longer time in hunter-gatherer societies compared to the modern world of cash economies. So it is not surprising to find evidence of psychological and biological adaptation mechanisms that have led this species to overcome the hurdle of natural selection (Hill and Buss 2006).

Robson (1992, 1996) argues that if there is evidence of a wealth externality effect (caused by status concerns) on an agent’s risk preference, it is likely to generate Pareto inefficient outcomes in a variety of contexts that are tied to status-induced risk preference.\(^{20}\)

\(^{20}\) Observing the fact that the large majority of convicted felons are males, Becker (1968) argued that criminal activities are tied to an agent’s risk preference. Fajnzylber et al. (2002) provide evidence of strong positive correlation between crime rates and inequality within and between countries and claim that this correlation reveals causation from inequality to crime rates (after controlling for other competing factors). In comparing risk sensitivity, Henrich and McElreath (2002) find poor indigenous people in Chile exhibit more risk prone behavior compared to mainstream middle income Chilean citizens. Knoeber and Thurman (1994) show
Corneo and Piketty (1998) also stated, “the concern for status may just be one of many conceivable externalities that distort equilibrium behavior away from the efficient outcome” (p.1). The role of status concern into risk-taking behavior may have a wide range of practical implications particularly in public policy issues that are designed to influence risk reducing behaviors (e.g. voluntary purchase of insurance products). For instance, Ng and Wang (1993) note that consideration of these issues may dramatically change the cost-benefit ratio in many public policy decisions. Along this line, Frank and Sunstein (2001) suggest that while making individual purchase decisions agents with positional concerns will spend less in risk reducing safety devices (in other words overestimate the value of reward from risky choices). They argue that the conventional cost-benefit analysis underestimates the benefits of safety regulations, as it does not account for status concerns. Frank and Sunstein (2001) argue for improved approaches and precision in incorporating such concerns into cost-benefit analysis.21

that low performance Broiler producers adopt more risky behavior when the reward structure is based on relative performance.

21 Frank and Sunstein (2001) suggest that if positional concerns are taken into account, the benefits of health and safety regulations may be twice of what is estimated under the assumption no positional concerns. Besharov (2001), and Kniesner and Viscusi (2001) provide opposing views. Besharov (2001) notes that only a minority of people have strong positional concerns, and that if some people are status concerned they may behave in an altruistic fashion rather than being envious as suggested by Frank and Sunstein (2001). Kniesner and Viscusi (2003) argue that effect of positional concern is small enough to be ignored in the cost-benefit analysis. This remains an empirical issue.
Finally, as with any stylized decision experiment, it is important to proceed with caution and not attempt to widely generalize from the results. In reality, status (and its perception) is a more complex phenomenon than a simple monetary balance of initial endowment. But given increasing concerns about economic inequality in the U.S. and elsewhere (Piketty and Saez, 2003 and 2007), we hope that this initial evidence spurs additional experimental and empirical investigations into the economic importance of status, especially in the context of individual decision-making across risky choices. Particularly for experimental investigations, an interesting route for further research will be assigning status endogenously to check the robustness of its sensitivity in risky decision-making.
References


Table 1. Experimental Design

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Status</th>
<th>No. of Subjects</th>
<th>Initial Endowment</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>Equal2</td>
<td>25</td>
<td>40 Lab Dollars (4 U.S.$)</td>
</tr>
<tr>
<td></td>
<td>Equal3</td>
<td>25</td>
<td>120 Lab Dollars (12 U.S.$)</td>
</tr>
<tr>
<td>T2</td>
<td>Unequal1</td>
<td>High1 18</td>
<td>120 Lab Dollars (12 U.S.$)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low1 17</td>
<td>40 Lab Dollars (4 U.S.$)</td>
</tr>
<tr>
<td></td>
<td>Unequal2</td>
<td>High2 25</td>
<td>100 Lab Dollars (10 U.S.$)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low2 24</td>
<td>60 Lab Dollars (6 U.S.$)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>134</td>
<td></td>
</tr>
</tbody>
</table>

Notes: The numbers in the parentheses represent the initial endowment.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WTA</strong></td>
<td>Willingness to Accept to sell the lottery</td>
<td>2680</td>
<td>6.372</td>
<td>5.225</td>
<td>0</td>
<td>25</td>
</tr>
<tr>
<td><strong>RP</strong></td>
<td>Risk Premium = (EV - WTA)</td>
<td>2680</td>
<td>-0.012</td>
<td>3.657</td>
<td>-18</td>
<td>20</td>
</tr>
<tr>
<td><strong>EV</strong></td>
<td>Expected Value of the lottery</td>
<td>2680</td>
<td>6.361</td>
<td>4.947</td>
<td>0.50</td>
<td>20</td>
</tr>
<tr>
<td><strong>EV^2</strong></td>
<td>Squared EV</td>
<td>2680</td>
<td>64.923</td>
<td>93.281</td>
<td>0.25</td>
<td>400</td>
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<tr>
<td><strong>UNEQUAL</strong></td>
<td>Equality indicator dummy variable (0 for equal status and 1 for unequal status)</td>
<td>2680</td>
<td>0.627</td>
<td>0.484</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>LOW</strong></td>
<td>High-low status indicator dummy variable (0 for high status and 1 for low status)</td>
<td>1680</td>
<td>0.488</td>
<td>0.500</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>UNEQUAL_{EV}</strong></td>
<td>(EV)*UNEQUAL</td>
<td>2680</td>
<td>2.517</td>
<td>2.814</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td><strong>UNEQUAL_{EV}^2</strong></td>
<td>(EV)^2*UNEQUAL</td>
<td>2680</td>
<td>14.251</td>
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<tr>
<td><strong>LOW_{EV}</strong></td>
<td>(EV)*LOW</td>
<td>1680</td>
<td>2.023</td>
<td>2.763</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td><strong>LOW_{EV}^2</strong></td>
<td>(EV)^2*LOW</td>
<td>1680</td>
<td>11.721</td>
<td>22.215</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 3. Random-Effects GLS (Unequal Sample with High and Low Status)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Dependent Variable: WTA</th>
<th>Dependent Variable: Risk Premium (EV-WTA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>EV</td>
<td>0.675*** (0.000)</td>
<td>0.692*** (0.000)</td>
</tr>
<tr>
<td>EV^2</td>
<td>-0.008 (0.299)</td>
<td>-0.010 (0.275)</td>
</tr>
<tr>
<td>LOW_EV</td>
<td>-0.035 (0.688)</td>
<td></td>
</tr>
<tr>
<td>LOW_EV^2</td>
<td>0.017*** (0.000)</td>
<td>0.021** (0.045)</td>
</tr>
<tr>
<td>Constant</td>
<td>1.517*** (0.000)</td>
<td>1.516*** (0.000)</td>
</tr>
<tr>
<td>No of Obs.</td>
<td>1680 (84 Subjects)</td>
<td>1680 (84 Subjects)</td>
</tr>
<tr>
<td>R^2</td>
<td>0.44 (0.000)</td>
<td>0.44 (0.000)</td>
</tr>
<tr>
<td>Wald (χ^2)</td>
<td>1091.85*** (0.000)</td>
<td>1090.96*** (0.000)</td>
</tr>
</tbody>
</table>

Notes: ***, **, * implies significance at 0.01, 0.05 and 0.10 levels respectively; numbers in parentheses are the corresponding P-values.
## Table 4: Random-effects GLS (Separating Status Effect from Potential Wealth Effect)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Initial Endowment=40</th>
<th>Initial Endowment=120</th>
<th>Initial Endowment=40</th>
<th>Initial Endowment=120</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 5</td>
<td>Model 6</td>
<td>Model 7</td>
<td>Model 8</td>
</tr>
<tr>
<td>EV</td>
<td>0.782***</td>
<td>0.854***</td>
<td>0.218*</td>
<td>0.146</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.072)</td>
<td>(0.127)</td>
</tr>
<tr>
<td>EV²</td>
<td>-0.008 (0.182)</td>
<td>-0.002 (0.698)</td>
<td>0.008 (0.182)</td>
<td>0.002 (0.698)</td>
</tr>
<tr>
<td>UNEQUALEV</td>
<td>-0.568 (0.200)</td>
<td>-0.397** (0.032)</td>
<td>0.568 (0.200)</td>
<td>0.397** (0.032)</td>
</tr>
<tr>
<td>UNEQUALEV²</td>
<td>0.070** (0.011)</td>
<td>0.031 (0.156)</td>
<td>-0.070** (0.011)</td>
<td>-0.031 (0.156)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.241*** (0.000)</td>
<td>1.824*** (0.000)</td>
<td>-2.241*** (0.000)</td>
<td>-1.824*** (0.000)</td>
</tr>
<tr>
<td>No of Obs.</td>
<td>840 (42 Subjects)</td>
<td>860 (43 Subjects)</td>
<td>840 (42 Subjects)</td>
<td>860 (43 Subjects)</td>
</tr>
<tr>
<td>R²</td>
<td>0.45</td>
<td>0.66</td>
<td>0.14</td>
<td>0.06</td>
</tr>
<tr>
<td>Wald (χ²)</td>
<td>485.57*** (0.000)</td>
<td>1233.66*** (0.000)</td>
<td>149.52*** (0.000)</td>
<td>60.23*** (0.000)</td>
</tr>
</tbody>
</table>

Notes: ***, **, * denotes significance at 0.01, 0.05 and 0.10 levels respectively; numbers in parentheses are the corresponding P-values.
Appendix-A: Excerpt from Instructions Provided to the Subjects

Thank you for coming and participating in this research. Please read the following instructions carefully. Your earnings depend on the decisions you make. We are going to ask you to make some decisions. There is no right or wrong answer; we just want you to make the choices that you like best. We will not tell anyone what you decide. At the end we will give you any money that you earn privately. The whole session should take about 30-45 minutes.

Selling Lottery Tickets
We are going to start by giving you an initial balance of money and 20 lottery tickets. **Keep in mind that some of you received 40 lab dollars and some of you received 120 lab dollars. Your balance was determined by a random draw.** We are going to ask you to make some decisions in situations where you will have a chance of earning some more money. The amount you will earn will depend on your choices. The money that you will end up with will be yours to keep, and we will pay it to you in cash at the end of the study. We will ask you to make 20 decisions. 8 of these decisions will be randomly selected and will count for your earnings. We will determine which decisions count by rolling a standard, twenty-sided die like this (show the die). All the transactions are in terms of lab dollars. At the end of the session we will convert your lab dollars into US currency. The conversion rate is 0.10 per lab dollar. That is, if you earn 100 lab dollars at the end of the experiment we will pay you 10 US dollars.

Choices
Here’s an example of the sort of choice we will ask you to make. The sample lottery on the worksheet (see below) shows a lottery where there is a 30% chance of getting $10, and a 70% chance of getting $0. We ask you to state the amount you would accept to sell this ticket. If you sell the ticket, you get the certain amount of your selling bid and if you don’t sell i.e., keep the ticket you might end with 10 lab dollars or 0 lab dollars. After you have written your bid, we will determine whether you actually have sold the ticket or not in the following way. In the bingo case, there are numbered balls from 1 to 10. **After you have written the minimum amount you would accept to sell the ticket, we will draw a ball from the bingo cage. If your bid is less than or equal to the number on the ball, you sell the ticket for the amount shown in the ball. If your bid is greater than the number on the ball, you do not sell the ticket.** For the unsold lottery tickets, a 10-sided die (show the die) will be rolled to determine whether you won the lottery or not.

To show how it works we will give you 2 lottery tickets for practice before you start with actual lotteries that will count towards your payoff. Let us know if you have any question.

**Sample Worksheet**

<table>
<thead>
<tr>
<th>N</th>
<th>Lottery Ticket</th>
<th>Your Selling Bid (Write in)</th>
<th>Draw Price (from Bingo Cage)</th>
<th>Sold? Y or N</th>
<th>Selected? Y or N</th>
<th>Outcome (for not sold) 10 or 0</th>
<th>Payoff If sold (bingo price), if not $10(won)/$0 (lost)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 to 3</td>
<td>4 to 10 Lab Dollar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>