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Abstract

Every decision we make has some degree of risk, and the way a situation is presented may impact the final decision. The purpose of this study was to examine the relationship between risk propensity and situational framing in a work setting. Risk propensity was measured using a General Risk Propensity scale developed by Hung, Tangpong, Li, and Li (2012). This was assessed in accord with participants’ framing confidence (as measured by the probability of selecting the “sure” response). Based on previous research on prospect theory (Kahneman & Tversky, 1979), it was hypothesized that the way a situation was framed (positively vs. negatively) would alter the decision made. Participants included 176 MTurk workers who were randomly assigned to the positive or negative frame condition. Results showed a significant moderation of the relationship between the probability of selecting the “sure” response and scores on the GRP scale by frame condition, such that the negative frame showed a stronger decrease in selecting the sure response than the positive frame. The findings of this study support prospect theory.
Chapter I

Review of the Literature

Every decision we make has some degree of risk, and our success, or lack thereof, may be influenced by our propensity to take chances in the presence of a degree of uncertainty. Risk propensity can be defined as one's decision-making tendency with an uncertain outcome and the possible success or failure of each outcome (Hung & Tangpong, 2010). This is said to be adaptable across different contexts and can evolve over time due to experience (Hung & Tangpong, 2010). A single decision could be the difference between success and failure, and how that decision is viewed by the decision-maker often depends on the outcome. Identical decisions could be seen as a good risk (i.e., a favorable potential outcome) or a bad risk depending on the results. But why was that decision made in the first place? Situational framing has been shown to impact decision making and needs to be explored further. What internal and external factors contribute to the final decision? Previous research on risk propensity has resulted in a debate on what it is, how it can be measured, and whether or not it is domain specific. Therefore, the purpose of this study is to explore the relationship between risk propensity and situational framing.

From a cognitive standpoint, some individuals may frame a situation more positively, focusing on more positive than negative characteristics in a situation and its potential outcome (Palich & Bagby, 1995). This leads to two risk-related decision-
making variables, risk perception and risk propensity. Risk perception is the assessment of a situation in terms of its uncertainty, if the situation is controllable, and an individual's confidence (Sitkin & Weingart, 1995). In addition to the previously stated definition, risk propensity is distinct from risk perception in that it is the general tendency to take or avoid risks, which influences evaluation and whether or not to proceed (Sitkin & Pablo, 1992).

Risk Propensity

Risk propensity cannot be defined and measured without first discussing the characteristics of risky behavior. A decision can be said to have some degree of risk when the outcome is uncertain. Situations with high variability are often seen as undesirable because variability decreases predictability. Likewise, a lack of knowledge about the potential outcomes also decreases predictability. Together, variability and lack of knowledge contribute to risk-taking as outcomes become uncontrollable and uncertain (Sitkin & Pablo, 1992).

Expected outcomes have also been shown to impact risky decision-making. A positive expected outcome will likely lead to different decisions than a negative expected outcome (Kahneman & Tversky, 1979). It is not necessarily the expected outcome that determines a risk, but whether or not the decision maker would be disappointed with the outcome. Therefore, even a positive outcome could be disappointing if it does not meet expectations (Sitkin & Pablo, 1992).

Potential outcomes are a third characteristic of risky behavior discussed by Sitkin and Pablo (1992). Extreme outcomes, such as high on the positive end or high on the negative end, can be either overweighted or underweighted by decision-makers. With the
potential of a great outcome, the perceived probability of success may increase, thus influencing the decision made. However, the potential outcome must be extreme enough for the decision-maker to address opportunities and threats. Therefore, Sitkin and Pablo stated that decisions are seen as risky when (a) favorable and disappointing outcomes have a high degree of uncertainty, (b) goals are difficult to complete, and (c) outcomes hold the possibility of extreme consequences. In the following sections, risk propensity at the organizational, group, and individual levels will be addressed.

**Organizational risk propensity.** Understanding human behavior can be crucial when implementing new products, procedures, and policies. Whether in finance, marketing, or operations, decisions made and their outcomes are often uncertain, and therefore involve some level of risk. More notably, staying competitive in the market can often involve a great deal of risk, and understanding who is likely to make these decisions and why is vital. Risk-averse individuals are more likely to keep the status quo and avoid adopting new policies and procedures, ultimately inhibiting the company from staying competitive. Those who are higher on openness and who accept unconventional and different beliefs may be more disposed to accept change and handle uncertain outcomes (Hung & Tangpong, 2010).

Furthermore, at the organizational level, it is important to consider organization size and economic standing. Walls and Dyer (1996) hypothesized that larger and wealthier organizations will be less risk-averse, but during an economic downturn, will be more risk-averse. Likewise, high-performing firms will show a risk-averse behavior, whereas low-performing firms may be more risk-seeking with a “nothing to lose” mentality (Hardwood, Stephen, Ward, & Chapman, 2009). Some firms that desire to be
risk-seeking value initiative, hire employees with more individualistic, as opposed to
collectivistic, and aggressive characteristics, and provide less restrictive rules. Risk-
averse firms prefer conformity, structure, and compliance, decreasing employees’
aptitude to take risks (Hardwood et al., 2009). The current external situations also
influence overall firm decision-making. Furthermore, an organization may fall victim to
diffusion of responsibility when making a risky decision. In the event of a poor outcome,
multiple individuals share the blame, whereas a positive outcome may lead to one
individual taking credit. On an individual level, we may see more risk averse decisions if
that decision is made alone.

**Individual and group risk propensity.** Also important is the difference in risk
taking between groups and individuals. Groups are thought to make riskier decisions
because of the influence of those high in risk propensity, and the likelihood for diffusion
of responsibility (Rabow, Fowler, Bradford, Hofeller, & Shibuya, 1966). This has
implications in terms of assessing how a decision was made and its influencing factors. If
a decision is made in a group, one must address whether the majority decision was used,
or if a unanimous decision was required. In group and individual decisions, positive or
negative aspects should be assessed as well. Details about the decision-making process
will contribute to our understanding of why and the type of decision made.

Determining a good risk, as defined above, versus a bad risk can be difficult
before the outcome is known, but understanding why a decision was made can help lead
to what are considered good decisions in the future. In the following sections, risk
propensity’s stability and adaptability, domain specificity, generalizability, and
relationship to personality will be addressed. Additionally, research on risk propensity,
the framing of a decision situation, and the relationship between the two will be considered. Applying these literatures to a business setting should help determine how and why decisions are made, and how poor decisions could be combated in the future.

**Stability versus adaptability.** Debate continues on whether risk propensity is stable or adaptable across contexts and time. Sitkin and Weingart (1995) formulated risk propensity as “an individual trait that can change over time” (p. 1575), which deviated from previous theories claiming stability (Fischhoff, Lichtenstein, Slovic, Derby, & Keeney, 1981; Rowe, 1977; both as cited in Sitkin & Weingart, 1995). Sitkin and Weingart argued that risk propensity possessed stable qualities, but had the ability to be altered over time. Additionally, Hung, Tangpong, Li, and Li (2012) discussed one theory that argued for stability and another that stated risk propensity was a reflection of one’s current tendency, leaving room for adaptability. Although risk propensity has been shown to vary across contexts, Hung and Tangpong (2010) reported stability within similar contexts. Combining the two theories, Hung et al. arrived at the conclusion that risk propensity “is an individual’s cumulative tendency to take or avoid risks, and is simultaneously persistent and can evolve over time as the person gains more experiences” (p. 80).

**Domain specificity.** Previous research has suggested that risk propensity is multifaceted (Hung & Tangpong, 2010) and varies across domains such as finance, health, ethics, recreation, and social situations (Weber, Blais, & Betz, 2002). However, research has also shown stability within the same or similar contexts (Hung & Tangpong, 2010). Weber et al. (2002) reported a lack of consistency among individuals’ risk-seeking
and risk-aversion tendencies across domains, further strengthening the argument for domain specificity.

Weber et al. (2002) sought to establish a scale to assess risk propensity in five domains: finance, health, ethics, recreation, and social. Their total scale, which was administered twice, measured both risk perception and risk behavior. When assessing reliability and validity, the scale was administered with three established measures: Kogan and Wallach’s (1964) risk-attitude scale, Budner’s (1962) scale for intolerance of ambiguity, and Zuckerman’s (1994) sensation-seeking scale (Weber et al., 2002). The results of the correlational analysis established convergent and discriminant validity of the domain-specific risk-attitude scale. The first study found the following coefficient alphas for risk behaviors and risk perceptions, respectively: .69 and .72 for finance, .73 and .81 for health, .83 and .84 for ethics, .82 and .81 for recreation, and .69 and .71 for social. A follow-up study was conducted to reduce the length of the scale. The follow-up study found the following coefficient alphas for risk behaviors and risk perceptions, respectively: .84 and .77 for finance, .77 and .76 for health, .78 and .81 for ethics, .83 and .80 for recreation, and .70 and .70 for social, thus establishing reliability (Weber et al., 2002).

Factor analysis using oblique rotation resulted in moderate to high loadings on identified factors, but strong correlations were not found between these factors. This implies domain specificity when assessing risk propensity. Weber et al. (2002) stated that differences may have been due to differences between perceptions of risk as opposed to different attitudes toward risk. This scale allows for the assessment of risk attitudes
across different domains. Although support was found for domain specificity, generalizability still required further attention.

**Generalizability.** Because the present study will focus on risk propensity in a simulated business setting, it is important to discuss the generalizability of the construct. Hung and Tangpong (2010) developed a 5-item scale that measured general risk propensity (GRP) in multifaceted business decisions. They used two sub-samples of students in a Principles of Management (MGMT) course and an Organization Behavior (OB) course. The MGMT and OB courses showed reliabilities of .72 and .73, respectively, on the GRP scale. To assess validity, a correlation analysis was conducted, which found significant correlations between GRP and the following established measures: financial risk propensity, gambling risk propensity, social risk propensity, openness, general ambiguity tolerance, and problem-specific ambiguity tolerance. The researchers then assessed generalizability using a sample of MBA students. Comparable results to the first two samples were found, which indicated acceptable generalizability (Hung & Tangpong, 2010).

Due to the persistent problem of using students as a sample, Hung et al. (2012) assessed the robustness of Hung and Tangpong’s (2010) GRP scale by using a sample with more business experience, and a separate non-U.S. sample that assessed its cross-cultural validity. Three items were added to the scale, and later the scale was reduced back to five items after analysis. The U.S. sample consisted of experienced business professionals, and took into account variables such as work experience and position within the company. The non-U.S. sample consisted of Chinese professionals, and assessed the same demographics as the U.S. sample. The same measures that were used
in the Hung and Tangpong study were also used in Hung et al.'s study: financial risk propensity, gambling risk propensity, social risk propensity, openness, general ambiguity tolerance, and problem-specific ambiguity tolerance. Results for the U.S. and Chinese samples were comparable to those in the Hung and Tangpong study. In the U.S. and Chinese samples, significant correlations between the GRP scale and financial risk propensity, openness, general ambiguity tolerance, and problem-specific ambiguity to tolerance were found, as well as reliability coefficients of .76 and .73, respectively (Hung et al., 2012). This shows an acceptable level of reliability and validity across various samples, thus supporting the generalizability of risk propensity.

**Risk propensity and personality.** Mishra and Lalumiere (2011) examined the association between personality and behavioral measures of risk, and reviewed three related theories. The first theory they reviewed was based on the work of Hirschi and Gottfredson (1994), and stated that those low in self-control tend to participate in risky behaviors (as cited in Mishra & Lalumiere, 2011). The second, Jessor’s (1991) problem-behavior theory stated that certain problem (risky) behaviors come from peer modeling and parental monitoring. The degree of risk in these behaviors should be assessed with regard to risk present and protection or caution taken. The third theory reviewed, from Daly and Wilson’s (2001) work stated that risky behaviors are a result of rational decisions made with the influence of our environment, and individuals are unable to foresee future consequences (as cited in Mishra & Lalumiere, 2011). Research supports the notion that those who score low on self-control, and high on impulsivity and sensation-seeking measures are more likely to participate in risk-taking behavior. Mishra
and Lalumiere sought a relationship between personality traits and risk-taking using laboratory tasks.

Mishra and Lalumiere (2011) discussed personality versus environment and which has a greater influence on risky behaviors. Some personality traits may predispose individuals to be more risk-averse or risk-accepting, or may lead individuals to risk-taking situations. In their study, four scales were used to measure personality: Zuckerman’s (1994) Sensation-Seeking Scale (SSS-V), which addresses disinhibited behavior; Eysenck’s (1985) Impulsivity Scale (EIS), which addresses impulsive behaviors; the Retrospective Behavioral Self-Control Scale (RBS; Marcus, 2003, as cited in Mishra & Lalumiere, 2011), which addresses low self-control from childhood to adulthood; and the Domain-Specific Risk Taking Scale (DOSPERT; Weber et al., 2002), which addresses the possibility of engaging in risky behavior.

Five tasks were used to measure risk behaviors. The first was the Choice Task (CT). Participants were to decide between two monetary options. Both options were equal in expected values, but different in variance. For example, “would you rather choose [A] $3 guaranteed, or [B] a 30% chance of earning $10?” (p. 871). The second was the Balloon Analogue Risk Task (BART). This was completed using a computer program by “pumping” a deflated balloon on the computer screen. With each pump, participants earned more money, and could stop and collect at any time. However, if the balloon popped, participants lost all earnings. The third was the Variance Preference Task (VPT). Participants had two choices, and each choice had two subsequent choices. One was ultimately riskier than the other, and a binary score of risky/not-risky was used. The fourth was Future Discounting I (FDI). Participants were given 21 choices of different
amounts of money available right away or in the future. A discounting parameter was
calculated, with higher scores indicating a preference for immediate rewards. The fifth
measure used was Future Discounting II (FDII). At the end of the study, participants were
given the chance to collect their earnings, or wait three weeks for an extra $10. This was
scored using “discounted vs. not discounted” (Mishra & Lalumiere, 2011).

The personality measures were each positively and significantly correlated with
each other. However, the correlations of interest were between personality measures and
behavioral measures of risk. Three of the four personality measures were significantly
and positively correlated with behavioral measures of risk. These were the sensation-
seeking scale, the impulsivity scale, and the domain-specific risk taking scale, which
correlated with Future Discounting II. The results suggest a relationship between some
personality characteristics linked to risk and a behavioral partiality for risky outcomes.

Furthermore, Gardiner and Jackson (2012) examined the relationship between
lateral preference, the Five-Factor Model of personality, risk-taking propensity, and
maverickism. Maverickism is operationalized as a behavioral predisposition to participate
in creative, risk-taking, disruptive, and goal-oriented behaviors. Mavericks are often seen
as those who go against the status-quo, lack caution, and are rule-breakers. High and low
scorers of maverickism may be successful, but for different reasons. Krueger and
Dickson (1994) found that those who believe themselves to be competent decision-
makers may find more positive opportunities in risky situations than those who do not
display this confidence (as cited in Gardiner & Jackson, 2012). However, the relationship
to corrective feedback had not been addressed. The aim of their study was to examine
what predicted maverickism, how maverickism is related to risk propensity, and the
influence of environmental factors on maverickism when performance feedback in introduced (Gardiner & Jackson, 2012).

Significance was found in the experimental condition (high risk propensity was associated with high maverickism; Gardiner & Jackson, 2012). The experimental condition consisted of 20 trials using the BART, as previously discussed. The first 10 trials had a low probability of exploding, and the last 10 trials had a high probability of exploding. The control condition consisted of 20 trials with a low probability of exploding. The purpose of the two conditions was to reward participants in the control condition and punish participants in the experimental condition. Gardiner and Jackson (2012) found the following:

...task feedback moderates the relationship between risk-taking propensity and maverickism such that in punishing conditionings, individuals high in maverickism are more likely than their low maverickism counterparts to continue to take risks. More interesting though, is that in rewarding conditions, individuals high and low in maverickism do not appear to display differences in risk-taking propensity. (p. 511)

This provides two possible implications: those high in maverickism may ignore corrective feedback, or they may evaluate it differently (Gardiner & Jackson, 2012).

Finally, mavericks may have the ability to frame a situation in a way that highlights the positives and ignores the negatives.

The Effects of Framing on Risky Decision Making

The way a situation is framed can impact the type of decision made – risk-averse or risk-seeking. However, rational choice suggests that the preference for one option
should not change when presented in a different frame (Tversky & Kahneman, 1981). Principles of utility theory state that decision-makers will focus on the potential final outcomes, rather than gains or losses presented in a situation (Kahneman & Tversky, 1979). Furthermore, one aspect of utility theory states “that if B is preferred to A, then any (probability) mixture (B, p) must be preferred to the mixture (A, p)” (Kahneman & Tversky, 1979, p. 266). Therefore, decision-makers are thought to show a preference for the situation that provides the greatest probable utility, or outcome (Tversky & Kahneman, 1981). Research by Kahneman and Tversky (1979) found support arguing against utility theory and in favor of situational framing, which is illustrated in the following problems:

Imagine that the U.S. is preparing for the outbreak of an unusual Asian disease, which is expected to kill 600 people. Two alternative programs to combat the disease have been proposed. Assume that the exact scientific estimate of the consequences of the programs are as follows:

If Program A is adopted, 200 people will be saved.

If Program B is adopted, there is 1/3 probability that 600 people will be saved, and 2/3 probability that no people will be saved.

Which of the two programs would you favor? (Tversky & Kahneman, 1981, p. 453)

Seventy-two percent of participants selected Program A, which indicated a risk-averse preference when using a positive frame. A second group of participants were presented with the same story, but the two options were in a negative frame:
If Program C is adopted, 400 people will die.

If Program D is adopted, there is 1/3 probability that nobody will die, and 2/3 probability that 600 people will die.

Which of the two programs would you favor? (Tversky & Kahneman, 1981, p. 453)

Seventy-eight percent of participants selected Program D, which indicated risk-taking in a negative frame. The results of the two problems are consistent with research in that risk-averse behavior is shown in situations with perceived gains, and risk-taking behavior is shown in situations with perceived losses. However, although the final outcomes were identical, the problems differed in how they were framed, contradicting utility theory. Problem 1 was framed in terms of how many lives would be saved, whereas problem 2 was framed in terms of how many would die. Kahneman and Tversky’s (1979) research led to the development of prospect theory.

Prospect theory. Prospect theory addresses decision-making in uncertain conditions and evaluates the prospects presented. The way choices are framed (i.e., as gain or loss) determines the type of decision made. Two phases are outlined in the decision process: the editing phase and the evaluation phase. The editing phase analyzes the prospects being offered, and is followed by the evaluation phase, which selects the prospect with the highest value. The researchers argued that the value of an outcome is based on a reference point, which is the standard an individual uses to evaluate a situation, and the amount of change from that point (Kahneman & Tversky, 1979). What is seen by one person as a large gain or loss may seem miniscule to another person based on each person’s reference point. Furthermore, one’s experience in a given situation will
influence future decisions in a similar situation (Chen, Ployhart, Thomas, Anderson, & Bliese, 2011).

Kahneman and Tversky (1979) also addressed the certainty effect, which states that people are more likely to place more emphasis on outcomes considered to be certain, as opposed to those that are just probable. Their study found support for prospect theory and the certainty effect. In a positive frame, a risk-averse tendency for a certain gain was found over a larger gain that was only probable. In a negative frame, a risk-seeking tendency was found for a probable loss over a smaller sure loss. Risk-aversion was found for positive frames (gains) and risk-seeking was found for negative frames (losses). The researchers stated that people will often ignore the shared components of situations and focus on the aspects that make them different (Kahneman & Tversky, 1979).

**Opponents of prospect theory.** The development of prospect theory broadened the realm of decision-making research with its argument against utility theory. However, prospect theory has also faced criticism and requires further clarification. Sitkin and Pablo (1992) addressed determinants of risk behavior, one of which was past success, or failure, and its impact on current decisions. Kahneman and Tversky (1979) stated that those protecting previous gains would be risk-averse and those who have suffered recent losses would be risk-seeking. However, Pablo (1997) and March and Shapira (1987) found support for the hypothesis that past successes would lead to higher risk propensity in the future.

Arguments have also been made against the effects of framing. Pablo (1997) stated that the size of gains and losses could potentially reverse the direction of decisions outlined in prospect theory. Kahneman and Tversky (1979) did, however, state that
subjectively, more value was attached to a larger gain, whereas less value was attached to a smaller gain. Furthermore, according to prospect theory, our emotional responses differ with respect to gains and losses. The emotional response to losses is typically greater than the response to gains (Tversky & Kahneman, 1981). March and Shapira (1987) argued that a positive frame would increase risk-taking because opportunities would be highlighted, and negative frames would decrease risk-taking because of identified threats. Finally, Mano (1994) found that risk decisions are related to arousal as opposed to the frame being used. Although framing has been shown to have an effect on decision-making (Sitkin & Weingart, 1995), the direction of those decisions is unclear. Thus, further analysis of framing and its relationship to risk propensity is needed.

**Conclusion**

Previous research on risk propensity has identified several areas that require further attention. Weber et al. (2002) found multiple underlying constructs when measuring risk propensity, implying domain specificity, whereas Hung et al. (2012) addressed risk propensity on a general scale. Furthermore, some support has been found for its generalizability. Finally, there has been mixed research regarding the effects of framing and decision-making. Therefore, this study aims to examine the relationship between risk propensity and framing.
Chapter II

Rationale and Hypotheses

Past research has examined different types of risk takers, such as workplace mavericks. These individuals tend to act against the norms, while believing themselves to be capable decision makers (Gardiner & Jackson, 2012). Furthermore, expected outcomes (Kahneman & Tversky, 1979) and potential outcomes (Sitkin & Pablo, 1992) of a situation have been shown to affect decision-making. A high propensity for risky decisions may be due to the notion that some individuals view more positive than negative characteristics in a given situation (Gardiner & Jackson, 2012). Contrary to this belief, when faced with apparent losses, individuals may be more likely to be risk-seeking (Kahneman & Tversky, 1979).

Prospect theory has shown that the way a situation is framed can impact that decision (Tversky & Kahneman, 1981). However, this has been met with criticism. Pablo (1997) stated that the magnitude of the gains and losses can reverse the decision assumed by prospect theory. The aim of this study is to investigate the claims of prospect theory and its relationship to scores on a risk propensity measure. Below are the business frames to be used, as adapted from Kahneman and Tversky’s (1979) model:

A large corporation is planning to acquire another company that only has 300 employees, and is going to have to restructure the workforce. Two alternative plans for restructuring are being considered:
Positive Frame

If the company uses restructuring plan A, 100 employees in the acquired company will retain their jobs. [sure]

If the company uses restructuring plan B, there is a one-third probability that 300 employees in the acquired company will retain their jobs, and a two-thirds probability they will not retain their jobs. [risky]

Negative Frame

If the company uses restructuring plan A, 200 employees in the acquired company will lose their jobs. [sure]

If the company uses restructuring plan B, there is a one-third probability that no one in the acquired company will lose their job, and a two-third probability that 300 employees will lose their jobs. [risky]

Therefore, the following are hypothesized:

**Hypothesis 1a:** In the positive frame condition, participants will select the “sure” option significantly more than the “risky” option.

**Hypothesis 1b:** In the negative frame condition, participants will select the “riskier” option significantly more than the “sure” option.

As previously stated, when faced with apparent losses, individuals are more likely to take risks. This is due to the notion that when a loss is seen as certain (negative frame), individuals will make a greater attempt to avoid that loss. Conversely, when a gain is seen as certain (positive frame), individuals are more likely to be risk-averse and protect that gain (Kahneman & Tversky, 1979). However, as one’s own propensity to take risks
increases, as measured by the GRP scale, the decision an individual makes may be affected.

Furthermore, when selecting a risky option or a sure option, the decision maker’s level of confidence should be assessed as well. Previous research has addressed this by asking participants to rate on a scale of 0%–100% how confident they are in their decision (Sitkin & Weingart, 1995). In the current study, confidence in the selected frame will be measured by the probability of selecting the “sure” response. Therefore, the following is hypothesized:

**Hypothesis 2:** The relationship between risk propensity and framing confidence (as measured by the probability of selecting the “sure” response) will be moderated by the frame (positive vs. negative), such that although selecting the sure response will decrease regardless of frame, the decrease will be stronger when participants are exposed to a negative frame than when they are exposed to a positive frame.

The hypothesized moderation is depicted in Figure 1.

Although maverickism is discussed in some of the literature relating to risk propensity, its impact is not focal or hypothesized in the present study. However, exploratory analyses were conducted utilizing a maverickism measure developed by Gardiner and Jackson (2012) to determine whether future research in this area may be warranted.
Figure 1. The proposed moderation of the relationship between the probability of selecting the "sure" response and scores on the GRP scale by frame condition.
Chapter III
Method

Participants

Participants were recruited using Amazon’s Mechanical Turk (MTurk), which is an online crowdsourcing tool. Individuals are free to choose to participate in any survey or other project posted to the site. Participants in the present study had to be at least 18 years of age, currently employed in the U.S. and have at least a 95% HIT (human intelligence tasks) approval rate with a minimum of 50 HITs completed. Participants were compensated $.50 for satisfactory completion of all required items and correctly answering the quality checks. The study was anticipated to take no longer than 20 minutes. This was acceptable compensation based on the research of Buhrmester, Kwang, and Gosling (2011), which stated that participants typically receive “nickels and dimes for 5-10 minutes tasks” (p. 3).

Based on Cohen’s (1992) power tables, 85 participants were needed per frame condition (positive and negative) in order to obtain .80 power and detect a medium effect running a binomial test. When running a multiple regression with three predictors, as was required for the test of Hypothesis 2, 76 participants were needed to obtain .80 power and detect a medium effect. Using the more conservative of the two requirements, the binomial test, a total of 170 participants were needed. Alpha was set at .05 for the purposes of the a priori power analysis.
A total of 206 sets of responses were collected. Data were removed for 30 participants who incorrectly answered either one or both of the quality check items, leaving a total of 176 usable responses. There were 92 males (52.3%), 83 females (47.2%), and one (.6%) who preferred not to answer. Sample sizes for positive and negative frame conditions were \( n = 85 \) and \( n = 91 \), respectively. The average age of participants was 36.7 years (\( SD = 13.27 \); range = 18 – 75). The remaining descriptive statistics for demographics can be found in Table 1.

**Measures**

**Risk propensity.** Risk propensity was assessed using the General Risk Propensity (GRP) scale developed by Hung and Tangpong (2010) and Hung et al. (2012; see Appendix A). This scale was developed using a sample of business students and business professionals in both the United States and China. It consists of five items measured on a 7-point scale ranging from 1 (very inaccurate description) to 7 (very accurate description). An example item is, “I like to take chances, although I may fail.” Items were summed to reach a composite score. Higher scores reflect a greater tendency to take risks. Hung et al. found that the GRP scale was significantly related to openness, problem-specific ambiguity tolerance, general ambiguity tolerance, and financial risk propensity. Within the U.S. sample, researchers found that the five items of the GRP scale loaded onto one factor, with factor loadings ranging from 0.53 to 0.84. Within the Chinese sample, the five items also loaded onto one factor, with factor loadings ranging from 0.47 to 0.78. Coefficient alphas for the U.S. and Chinese samples were 0.76 and 0.73, respectively (Hung et al., 2012). Coefficient alpha for this study was .82.
Table 1

Sample Demographics

<table>
<thead>
<tr>
<th>Demographic</th>
<th>n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian/Non-Hispanic</td>
<td>131</td>
<td>74.4</td>
</tr>
<tr>
<td>Black or of African American descent</td>
<td>20</td>
<td>11.4</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>10</td>
<td>5.7</td>
</tr>
<tr>
<td>Asian</td>
<td>8</td>
<td>4.5</td>
</tr>
<tr>
<td>Indian</td>
<td>3</td>
<td>1.7</td>
</tr>
<tr>
<td>Multiracial/Multi-ethnic</td>
<td>3</td>
<td>1.7</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some high school</td>
<td>6</td>
<td>3.4</td>
</tr>
<tr>
<td>High school diploma or equivalent</td>
<td>65</td>
<td>36.9</td>
</tr>
<tr>
<td>Associates degree</td>
<td>28</td>
<td>15.9</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>49</td>
<td>27.8</td>
</tr>
<tr>
<td>Master's degree</td>
<td>24</td>
<td>13.6</td>
</tr>
<tr>
<td>Doctorate</td>
<td>4</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>Position</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-supervisor</td>
<td>105</td>
<td>59.7</td>
</tr>
<tr>
<td>Team Leader</td>
<td>36</td>
<td>20.5</td>
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<tr>
<td>Manager</td>
<td>30</td>
<td>17.0</td>
</tr>
<tr>
<td>Senior Executive</td>
<td>5</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Tenure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-6 months</td>
<td>22</td>
<td>12.5</td>
</tr>
<tr>
<td>7-12 months</td>
<td>23</td>
<td>13.1</td>
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<tr>
<td>1-3 years</td>
<td>61</td>
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<td>4-6 years</td>
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<tr>
<td>11-14 years</td>
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<td>2.3</td>
</tr>
<tr>
<td>15+ years</td>
<td>10</td>
<td>5.7</td>
</tr>
</tbody>
</table>
**Demographics.** Demographics collected included gender, age, race, education level, supervisory level, tenure with current company, and the MTurk user ID (see Appendix B). The user ID was used for participant compensation, but was removed prior to conducting any data analyses.

**Manipulation and quality checks.** There was one manipulation check, which asked participants to identify the focus of the organization in the presented frame. As part of the demographic questions, participants were asked whether the organization’s focus was on retaining or losing jobs (see Appendix B). Although these responses were collected, failing the manipulation check did not result in eliminating participants. In the positive frame, 8 out of 85 participants failed the manipulation check (9% failure rate), whereas in the negative frame, 50 out of 91 participants failed the manipulation check (55%). Binomial tests were conducted to assess failure rates between the two frames. In the positive frame, the .09 failure rate differed significantly from a test proportion of .55 (the proportion who got the manipulation check incorrect in the negative frame), one tailed, \( p < .001 \). That individuals were significantly more likely to fail the manipulation check in the negative than positive frame condition will be considered in more detail in the Discussion section.

There were two quality checks within the GRP scale, which were modeled off the research by Barger, Behrend, Sharck, and Sinar (2011). These were included as Question 2 and Question 6, which instructed participants to select a specific answer on the scale (see Appendix C). The quality checks were to ensure that participants were engaged in the survey and paid attention to their answers. Failing the quality checks resulted in the participants’ data being discarded, and compensation not being awarded.
Framing confidence. The current study examined the impact framing had on decision-making. Participants were given a vignette describing a business scenario and potential outcomes, which involved a company acquisition and the potential loss of jobs. One group was given two options in a positive frame and the other was given two options in a negative frame. Each had the same information and end result, but presented differently. Participants selected one of the two options presented (the sure or risky outcome, a dichotomous variable), then rated their level of confidence in their decision from 51%–100%. Framing confidence was measured by the probability of selecting the “sure” response such that for individuals who chose the “sure” option, their confidence rating was simply the number reported, whereas for those who chose the “risky” option, their rating was subtracted from 100 to obtain the probability that they would have selected the “sure” response. That is, someone who chose the “risky” option and indicated 75% confidence would have a framing confidence score of 25 (100-75), to reflect the probability that they would have selected the “sure” response and to provide a consistent interpretive meaning to the variable. Frames were adapted from the research by Kahneman and Tversky (1979), and modified for a business setting. The positive and negative frames are outlined in Chapter II, and are included as Appendix D.

The decision to use a dichotomous and continuous outcome was based on the research by Sitkin and Weingart (1995). Their study had participants read a vignette on potential problems with a racecar. They were then asked to decide whether or not they would recommend proceeding with the race (yes or no) and how confident they were from 0%–100%. This study utilized a similar dichotomous and continuous outcome. However, the continuous outcome was reduced to selecting between 51%–100%. This
was done to reduce potential problems or confusion with selecting a level of confidence. By only providing a range of 51%-100%, it reduced the potential of selecting an option and then attributing less than 50% confidence. If this (confidence < 50%) were to happen, it would imply that the participant actually preferred the option not chosen.

**Maverickism.** The exploratory aspect of this study was assessed using a maverickism scale (see Appendix E) developed by Gardiner and Jackson (2012). The scale was developed using full-time workers who were recruited through a Sydney-based research website. It consisted of seven items developed to assess functional characteristics of maverickism in a work setting, and was measured on a 3-point scale, 0 (false), 1 (can't decide), and 3 (true). Scores on each item were summed to reach a composite score. An example item is, "I am much more productive than other people." Higher scores reflect higher maverickism. Using principal axis factor analysis, Gardiner and Jackson found that items loaded on one factor, indicating unidimensionality. Furthermore, Gardiner and Jackson found a relationship between maverickism and personality. It was significantly correlated $r = 0.40$ with reward sensitivity, $r = 0.26$ with defensive approach, and $r = 0.23$ with defensive aggression. Coefficient alpha for Gardiner and Jackson’s sample was 0.72. Initial coefficient alpha for this study was .63. Upon deleting item 6 from analyses, coefficient alpha increased to .65. Although deleting an item slightly increased alpha, the increase was small enough that all items were retained for the analyses.

**Procedure**

Institutional Review Board (IRB) approval was sought using Xavier University’s IRB under the expedited process, with minimal foreseeable risks. The IRB approval letter
is included as Appendix F. Data were collected using MTurk and SurveyGizmo. Participants were informed that the general purpose of the study was to investigate decision-making tendencies in the workplace. A copy of the Informed Consent that was presented to participants is included as Appendix G. Due to the sensitive nature of the demographic information, the highest level of anonymity SurveyGizmo allows was used. This ensured that information, such as IP addresses or geotracking data, was not reported.

Upon entering MTurk, a link was provided, sending participants to the survey. Participants were presented with the MTurk interface, which can be found in Appendix H. Participants first completed the GRP scale. Next, participants were randomly assigned to either the positive frame condition or the negative frame condition by the SurveyGizmo website, where they were presented with a scenario, followed by one of the two decision options (see Appendix I). After selecting either option A or B, participants rated how confident they were only in their decision on a scale ranging from 51%–100%. Next, participants completed the maverickism scale. Finally, participants were presented with demographic questions.
Chapter IV

Results

Binomial tests were conducted to test Hypotheses 1a and 1b, which assessed the proportion of participants in each condition selecting the “sure” vs. “risky” option. Hypothesis 1a stated that in the positive frame condition, participants would select the “sure” option significantly more than the “risky” option. The observed proportion of .64 for the “sure” option differed significantly from .36, the proportion that selected the “risky” option, one-tailed, $p < .001$. Therefore, Hypothesis 1a was supported. Hypothesis 1b stated that in the negative frame condition, participants would select the “risky” option significantly more than the “sure” option. The observed proportion of .54 for the “risky” option did not differ significantly from .46, the proportion that selected the “sure” option, one-tailed, $p = .081$. Therefore, Hypothesis 1b was not supported.

A multiple regression was conducted to test Hypothesis 2, which assessed the moderation of the relationship between framing confidence (as measured by the probability of selecting the “sure” response) and the GRP scale by the frame presented. The multiple regression consisted of framing confidence as the criterion variable, GRP scores as the primary predictor variable, and frame condition as the moderator variable. GRP scores and frame condition (dummy coded) were entered in step one, and significantly predicted framing confidence, $F(2, 173) = 8.29, p = .006$. The GRP x frame product term was entered in step two in order to test for moderation, and the interaction
between GRP scores and frame condition accounted for variance above and beyond the predictors alone, $\Delta r^2 = .035$, $F(1, 172) = 6.92, p = .009$.

The obtained moderation is depicted in Figure 2. As can be seen from the figure, although the confidence in selecting the "sure" response decreased regardless of frame, the decrease was stronger when participants were exposed to the negative frame, which had a significant decrease, than when exposed to the positive frame, which did not have a significant decrease. Based on the presence of a significant product term and the form of the observed moderation, Hypothesis 2 was supported.

Follow up analyses were conducted to assess the strength of decrease in framing confidence (as measured by the probability of selecting the "sure" response) per frame. GRP scores were divided into thirds (low, medium, and high). For each frame, independent-samples $t$ tests were conducted to compare framing confidence with low GRP scores to framing confidence with high GRP scores. In the positive frame, no significant difference was found between framing confidence with low GRP scores ($M = 58.76, SD = 19.10$) and framing confidence with high GRP scores ($M = 58.06, SD = 28.21$), $t(64) = .12, p = .907$. In the negative frame, a significant decrease was found between framing confidence with low GRP scores ($M = 57.08, SD = 23.19$) and framing confidence with high GRP scores ($M = 33.26, SD = 25.02$), $t(69) = 4.16, p < .001, d = .99$.

**Exploratory Analyses**

Although the maverickism scale was not utilized in the hypotheses, it was used for a number of exploratory analyses. In alignment with findings by Gardiner and Jackson (2012), there was a significant positive relationship between the GRP scale and maverickism scale, $r(174) = .45, p < .001$. Additionally, a significant negative
Figure 2. Obtained moderation of the relationship between the probability of selecting the “sure” response and scores on the GRP scale by frame condition.
relationship was found between age and maverickism, $r(174) = -.201, p = .008$. No other significant relationships were found between maverickism and demographic variables.

Furthermore, analyses were conducted to examine the relationship between risk propensity and demographics. A significant negative relationship was found between age and risk propensity, $r(174) = -.18, p = .018$. No other significant relationships were found between risk propensity and demographic variables. Finally, analyses were conducted between framing confidence (as measured by the probability of selecting the “sure” response) and demographic variables. Using a one-way ANOVA, a significant difference was found between race and the probability of selecting the “sure” response, $F(5, 169) = 4.09, p = .002, \eta^2 = .12$. Tukey HSD post hoc tests revealed that Multiracial/Multi-ethnic participants ($M = 6.67; SD = 11.55$) rated their framing confidence significantly higher than participants who identified as Caucasian/Non-Hispanics ($M = 52.22; SD = 24.67$), Black or of African American descent ($M = 57.35; SD = 27.11$), Asian ($M = 36.7; SD = 22.19$), and Indian ($M = 84.00; SD = 13.89$). Additionally, Hispanic/Latino participants ($M = 36.7; SD = 25.73$) rated their framing confidence significantly higher than Indian participants ($M = 84.00; SD = 13.89$). Due to the small sample sizes for many of the racial/ethnic groups (see Table 1), these results should be interpreted with caution.
Chapter V
Discussion

The purpose of this study was to examine the relationship between risk propensity and situational framing in a work setting. Hypothesis 1a stated that in the positive frame condition, participants would select the “sure” option significantly more than the “risky” option. Hypothesis 1b stated that in the negative frame condition, participants would select the “risky” option significantly more than the “sure” option. Hypothesis 2 assessed the moderation of the relationship between framing confidence (as measured by the probability of selecting the “sure” response) and the GRP scale by the frame presented. Hypotheses 1a and 2 were supported.

Hypotheses 1a and 1b assessed the proportion of participants that selected the “sure” vs. “risky” option in a positive or negative frame. In the positive frame, significantly more participants selected the “sure” option than the “risky” option. However, in the negative frame, there was no significant difference between the number of participants who selected the “sure” option and those who selected the “risky” option.

Previous research provides two competing theories regarding decision-making: utility theory and prospect theory. According to utility theory, potential final outcomes are the focal point of a decision, rather than how a situation is presented. For example, “if \( B \) is preferred to \( A \), then any (probability) mixture \((B, p)\) must be preferred to the mixture \((A, p)\)” (Kahneman & Tversky, 1979, p. 266). Conversely, prospect theory states that the way a situation is framed (positively or negatively) will be what influences the decision. The
present study specifically tested predictions based on prospect theory. Therefore, to find support for utility theory, we would expect the same option to be chosen, regardless of frame, which did not occur. Furthermore, this study’s findings oppose rational choice, which suggests that a different frame should not change the preference for one option (Tversky & Kahneman, 1981). However, only the positive frame produced a significant difference in selection, which does not support utility theory, and only partially supports prospect theory in that significant risk-aversion was found in the positive frame.

Hypothesis 2 assessed the relationship between framing confidence (as measured by the probability of selecting the “sure” response) and scores on the GRP scale by frame condition. Modeled off research by Sitkin and Weingart (1995), participants selected a “sure” or “risky” choice and then rated their level of confidence in the decision. GRP scores and frame condition were found to significantly predict the probability of selecting the “sure” response. Furthermore, the significant GRP x frame product term indicated the presence of moderation of the risk propensity-framing confidence relationship by framing condition, such that as risk propensity increased, the negative frame led to a stronger decrease in the probability of selecting the “sure” response than the positive frame. Thus, prospect theory (Kahneman & Tversky, 1979) was supported due to the difference in the probability of selecting the “sure” response by frame.

Exploratory analyses were conducted using a maverickism scale developed by Gardiner and Jackson (2012). As expected, a significant positive relationship was found between maverickism and risk propensity, \( r(174) = .45, p < .001 \). The maverickism scale is a personality measure developed in relation to risk taking. Therefore, its positive relationship with risk propensity was anticipated. However, with a coefficient alpha of
.63, this measure should be used with caution, as it is less than the acceptable level of .70 (Cortina, 1993).

Demographic variables were also assessed in relation to risk propensity, maverickism, and framing confidence. *A priori* arguments can be made for either a positive or negative relationship with age and the identified variables. For example, one argument may be that as age increases, individuals will be comfortable taking more risks, whereas another argument may be that an increase in age will lead to less risk-taking due to past experience. A significant negative relationship was found between age and maverickism, and age and risk propensity, which supports the position that risk taking may decline with age. However, the reason for the direction of this relationship was not assessed in this study, nor can firm causal statements be made based on the present data. A number of significant differences were also found between different races and the level of framing confidence. Although significant results were found, sample sizes for five of the six race categories were small (*n* = 20; *n* = 10; *n* = 8; *n* = 3; *n* = 3). However, the effect size for the one-way ANOVA treating race as a research factor was large (η² = .12; Green & Salkind, 2011). Therefore, these results should be interpreted with caution.

**Contributions**

This study contributes to the literature on decision-making by investigating prospect theory in a work setting and examining its relationship to risk propensity. Research by Hung and Tangpong (2010) and Hung et al. (2012) used a “gain-seeking” scenario with a yes/no decision in conjunction with GRP scale development. The scenario used by Hung and Tangpong was about product innovation adoption. However, only one scenario was presented and, as previously stated, the only options were whether
or not participants would accept the proposal. Furthermore, Sitkin and Weingart (1995) also used a risk scenario with a yes/no decision and a confidence rating from 0%–100%. Again, only one scenario was presented with a decision option of whether or not to move forward. However, their study added the element of a confidence rating.

The development of prospect theory did not utilize a business setting. However, it did show that the way a situation is framed can alter the decision made (Kahneman & Tversky, 1979; Tversky & Kahneman, 1981). In addition, prior research utilized a positive frame with two potential outcomes and a negative frame with two potential outcomes. These decision options had the same end result, but differed in the way they were presented. Although the development of prospect theory did not utilize a business setting, previous research on prospect theory has (e.g., Fiegenbaum, 1990). But how much does a business setting matter? Prospect theory was developed using a life or death scenario, which is more severe than retaining or losing a job. Therefore, future research should consider the difference in magnitude of the potential results (people dying vs. people getting laid off).

This study built on previous research based on prospect theory by using positive and negative frames, a risk propensity measure, and a confidence rating, all in a business-related context. Results show noteworthy implications both from a theoretical and practical standpoint. Based on previous prospect theory research, we would have expected both Hypotheses 1a and 1b to be supported. That is, we would have expected participants in the positive frame to select one option significantly more than the other, and for participants in the negative frame to select the opposite option significantly more than the other. Although in the negative frame, the “risky” option was selected more than
the “sure” option, which was in the hypothesized direction, the difference was not significant. This is interesting from a theoretical perspective because of the nature of the manipulation, which consisted of altering the wording of the scenario to reflect the retaining of jobs vs. the loss of jobs. The slight difference in wording resulted in a different choice based on frame, with one frame yielding significant results and the other yielding non-significant results, but in the right direction. That a negative frame seems to have been somewhat effective in influencing choice, but not as effective as a positive frame, is noteworthy.

In further examining differences across framing conditions, when presented with a positive frame, 8 out of 85 participants failed the manipulation check, a failure rate of 9%, whereas in the negative frame, 50 out of 91 participants failed the manipulation check, a failure rate of 55%. The only difference between the frames was the language used to describe the situation, specifically using “retain” and “lose.” It seems that the positive frame had a stronger resonance with participants than the negative frame, such that participants were able to correctly identify the focus of the organization in the positive frame at a higher rate than the negative frame. However, one potential drawback of the manipulation check was the choice of words used. Participants were asked to identify the focus of the organization rather than the focus of the vignette. Perhaps participants still perceived the organization as helping employees because a restructuring plan was in place, and each frame involved some employees keeping their job. The proportion of participants who selected the “risky” vs. “sure” options differed in the positive frame, but not in the negative frame. However, the negative frame did lead to a greater reported likelihood of selecting the “risky” response than the positive frame. This
implies that although a positive frame may stand out more and be more obvious, a negative frame may lead to a lesser probability of selecting the “sure” response. As stated previously, the failure rates differed significantly from each other across conditions, with the positive frame showing a significantly lower failure rate than the negative frame.

There are a number of potential explanations for the difference in failure rates. Perhaps those in the negative frame were not consciously aware of the manipulation due to the subtlety of the language utilized. However, the same can be argued for those in the positive frame, which had a 91% success rate. It may be that in a business setting, certain terms (gain vs. loss), are more salient than others. Additionally, it may be that individuals, either consciously or subconsciously, attempt to approach situations in a positive way, and due to past experiences with or knowledge of situations like that described in the vignette, may have conceptualized the scenario in the more cognitively “acceptable” way. This could potentially explain why 91% of those in the positive frame correctly identified the organizational focus as a gain, and the majority (55%) of those in the negative frame, although incorrect, also identified the focus as a gain. However, participants in the negative frame reported a lower probability of selecting the “sure” response than the positive frame, thus achieving the desired effect of the manipulation. It could be that situations are approached one way, and processed another way.

Perhaps the most notable and interesting results came from the framing confidence (as measured by the probability of selecting the “sure” response) aspect of this study and the moderation of its relationship with risk propensity by frame presented. Although there was not a significant difference in the selection of “sure” choice vs “risky” choice in the negative frame, there was a difference in the probability of selecting
the "sure" response between frames. As can be seen in Figure 2, the trend line for the negative frame has a much greater decrease than the trend line for the positive frame. As such, as risk propensity increased, there was a greater decrease in the probability of selecting the "sure" option, which corresponded to a greater probability of selecting the "risky" option, in the negative frame than in the positive frame. Although the negative frame did not result in a significant difference in decision options, it did result in a difference in confidence. Based on these results, when presented with multiple options, participants are likely to show greater confidence in a "risky" decision when it is presented in a negative frame than in a positive frame. This supports arguments by Kahneman and Tversky (1979), who stated that those protecting previous gains would be risk-averse, and those who have experienced losses would be risk-seeking. Although previous gains and losses were not assessed, the situation itself did involve gains and losses. Another interesting result is the direction of the positive frame confidence. If we were to assume opposite results by frame, which is consistent with prospect theory, we would expect to see an increase in the probability of selecting the "sure" response in the positive frame. However, as risk propensity increased, a slight decrease in the probability of selecting the "sure" response was found.

An important aspect of this study is its generalizability. Hung et al. (2012) found acceptable levels of generalizability for the GRP scale with alphas of .76 for the U.S. sample and .73 for the Chinese sample. Their samples consisted of business students and business professionals. This study's coefficient alpha of .82 was greater than what was found by Hung et al., and had a sample of varying educational levels, position in the company, tenure, and age. Additionally, age was the only demographic variable
significantly related to risk propensity. Therefore, with the lack of differences among other demographics, and sufficient variability within demographic categories, we can assume reasonable generalizability for the GRP scale.

A number of practical implications can be drawn from these results. In any line of business, companies will be faced with changes in their organization. These can include new marketing campaigns, operations, product development, and other major and minor changes to how work is done. This study focused specifically on company restructuring and the potential gain/loss of employees. The application of these results can be approached from multiple perspectives, potentially stemming from an individual’s ambitions. For example, using this study’s scenario, if a business were to restructure, and multiple proposals were made regarding the direction to choose, a specific frame could be used to increase the chances of obtaining a desired result. If an employer or employee were proposing a new product, process, or idea, a different frame could be used in their favor when presenting on the potential benefits, risks, and overall outcome.

Additionally, the GRP scale can be administered to decision-makers in an organization to gain a better understanding of their level of risk-taking and the type of decisions it might lead to. Employers could assess employees’ general risk propensity, and based on their score, decide how involved they should be in important company decisions. For example, if an organization’s current economic state requires it to be more conservative than in the past or than what is desired, an employee with high risk propensity should potentially not be involved in high level decisions. Conversely, if an organization desires to take a risk, is stable enough to take a risk, or needs to take a risk to remain competitive, it may desire an employee with high risk propensity. High risk
propensity will not only increase risk-taking, but may lead to the possibility of finding more opportunities in a given situation, especially if it is framed a certain way (Palich & Bagby, 1995).

**Limitations and Future Research**

One limitation of this study was its use of an online sample using Amazon’s MTurk. This limited the sample to those with computer and Internet access. There has been debate over the representativeness of MTurk samples as compared to student samples, although MTurk samples have been shown to be more representative than student samples and appropriate for research aimed at employees (Barger et al., 2011). Furthermore, the motivation of MTurk participants has sometimes been questioned. The quality check items assessed whether or not participants were paying attention, thus speaking to the quality of the data (Barger et al., 2011). A final limitation of MTurk participants was the number of those with decision-making responsibilities within the organization. Of the 176 usable responses, 105 were non-supervisors with likely no decision-making authority. Without having faced important decisions at work, responses may not represent realistic organizational decisions. However, between team leaders \(n = 36\), managers \(n = 30\), and senior executives \(n = 5\), 71 participants were likely to have such authority.

The second potential limitation is the strength of the framing manipulation, as it was not an exact replication of prior research. The two frames were modeled off the research by Kahneman and Tversky (1979) and adapted for a business setting. It is possible that participants may have recognized that both options within the frame had the same outcome, but were presented differently, which may have affected their decision. As previously discussed, there was a difference in the success rates for each frame, which
suggests potential problems with the strength of the manipulation. Furthermore, participants were only presented with one frame, therefore it is unknown how responses would have compared had they been presented with both frames. Additionally, the scenario was presented in a form that was very broad, (i.e., it did not contain a lot of detail or discuss other potential impacts, only retaining or losing jobs). A more detailed business scenario with potential benefits and drawbacks may lead to a different decision-making process.

A third potential limitation is the hypothetical nature of the study. The choice participants made did not have an impact on their personal or work life. This relates back to an individual’s motivation to complete the study accurately and truthfully. Without any repercussions, participants may not have given as much thought to their decision as they would have at work. However, restructuring and downsizing are common organizational practices. Between 2000 and 2007, over 4,000 employees were downsized per day (De Meuse & Guangrong, 2013). After the economic downturn of 2008, 4 million workers were downsized in 2009 (Cascio, 2010 as cited in Day, Armenakis, Feild, & Norris, 2012). Even though this study did not have an impact on their life, participants may have been affected by downsizing or restructuring in the past, or known someone who has, potentially influencing their decision.

Finally, it was hypothesized that the way a situation was framed would contribute to the level of risky decisions made. However, a number of individual characteristics, such as tolerance for ambiguity or sensation seeking, may have played a role in how a situation is perceived, and these characteristics were not addressed in this study. Random
assignment and procedural consistency were used in attempts to decrease these differences. Therefore, future research is needed in a number of areas.

Using a sample within a single organization may yield different results than using a sample from MTurk. Although it may not be as generalizable, it could provide important insight as to the state of the company as well as variability among levels of employees from entry level workers to senior executives. Additionally, whether using MTurk or a single organization, it is important to identify who has decision-making authority, which this study does not address. By identifying decision-makers vs. non decision-makers, researchers may find a difference based on risk propensity.

A second potential future research area is the nature of scenario presented. The scenario used in the present study was simple, as it was adapted from research by Kahneman and Tversky (1979). Future research should address framing and risk propensity by using a more detailed, and potentially more complicated scenario that reflects a more realistic situation encountered in an organization. It is not likely that decisions will be black and white, but will involve tradeoffs for each possible decision made. Furthermore, it would be interesting to investigate decision-making when participants are presented with both frames during the study instead of just one.

There are a number of different risk propensity scales that may provide insight on the construct. For example, Weber et al. (2002) developed a risk propensity scale addressing multiple domains, such as health risk, social risk, and financial risk. Although support was found for domain specificity, using various scales could contribute to current literature on the nature of risk propensity.
A fourth future research area would be to use a real issue an organization is currently facing. This would allow researchers to address organizational goals and potential obstacles, thus providing more insight into the decision-making process. In this scenario, real consequences could be examined, and perhaps give more attention to situation at hand. This should investigate previous losses and gains that influenced the decision. By addressing previous events, we may discover a trend as to what plays a bigger role in future decisions. However, researchers should be aware of potential ethical issues when manipulating the way information is presented in a situation involving drastic change. Serious consideration should be given to any manipulation used in a real organization, although a controlled setting may be more practical.

Finally, although a maverickism scale was used as a personality measure for exploratory purposes, it was not a focal point and did not demonstrate acceptable psychometric properties. Personality should be further addressed in future research in hopes of finding characteristics consistently related to risk propensity. This would provide organizations with greater insight into risk-taking at an organizational level as well as an individual level.

Conclusion

Understanding why a decision was made can provide valuable insight to an organization when faced with important issues. This study investigated the relationship between risk propensity and situational framing in the workplace. Support was found for prospect theory, such that the way a situation is framed will affect the decision made. Specifically, as risk propensity increases, the probability of selecting the “risky” option increases in a negative frame significantly more than in a positive frame. Organizations
can benefit from understanding why decisions were made and potential outcomes to be expected based on a situations frame. Future research should be conducted using various frames as well as the nature of risk propensity. However, this study provides important implications regarding the relationship between risk propensity and framing.
Chapter VI

Summary

Every decision we make has some degree of risk, and our success may be influenced by our propensity to take chances in the presence of a degree of uncertainty. Risk propensity can be defined as one’s decision-making tendency with an uncertain outcome and the possible success or failure of each outcome (Hung & Tangpong, 2010). This is said to be adaptable across different contexts and can evolve over time due to experience (Hung & Tangpong, 2010). From a cognitive standpoint, some individuals may frame a situation more positively, focusing on more positive than negative characteristics in a situation and its potential outcome (Palich & Bagby, 1995).

A decision can be said to have some degree of risk when the outcome is uncertain. Situations with high variability are often seen as undesirable because variability decreases predictability. Likewise, a lack of knowledge about the potential outcomes also decreases predictability (Sitkin & Pablo, 1992). Expected outcomes have also been shown to impact risky decision-making. A positive expected outcome will likely lead to different decisions than a negative expected outcome (Kahneman & Tversky, 1979).

Gardiner and Jackson (2012) examined the relationship between the Five-Factor Model of personality, risk-taking propensity, and maverickism. Maverickism is a behavioral predisposition to participate in creative, risk-taking, disruptive, and goal-oriented behaviors. Mavericks are seen as those who go against the status-quo, lack
caution, and are rule-breakers. A positive relationship was found between risk propensity and maverickism (Gardiner & Jackson, 2012).

The way choices are framed (i.e., as gain or loss) determines the type of decision made. Prospect theory addresses decision-making in uncertain conditions and evaluates prospects presented. Researchers argued that the value of an outcome is based on a reference point, which is the standard an individual uses to evaluate a situation, and the amount of change from that point (Kahneman & Tversky, 1979). What is seen by one as a large gain or loss may seem miniscule to another based on each reference point. Their study found support for prospect theory. Risk-aversion was found for positive frames (gains) and risk-seeking was found for negative frames (losses). The researchers stated that people will often ignore the shared components of situations and focus on aspects that make them different (Kahneman & Tversky, 1979).

The aim of this study is to investigate the claims of prospect theory and its relationship to scores on a risk propensity measure in a business context. Below is an example of the business frames adapted from Kahneman and Tversky’s (1979) model:

A large corporation is planning to acquire another company that only has 300 employees, and is going to have to restructure the workforce. Two alternative plans for restructuring are being considered:

*Positive Frame*

If the company uses restructuring plan A, 100 employees in the acquired company will retain their jobs. [sure]
If the company uses restructuring plan B, there is a one-third probability that 300 employees in the acquired company will retain their jobs, and a two-thirds probability they will not retain their jobs. [risky]

Negative Frame

If the company uses restructuring plan A, 200 employees in the acquired company will lose their jobs. [sure]

If the company uses restructuring plan B, there is a one-third probability that no one in the acquired company will lose their job, and a two-third probability that 300 employees will lose their jobs. [risky]

Therefore, the following are hypothesized:

Hypothesis 1a: In the positive frame condition, participants will select the “sure” option significantly more than the “risky” option.

Hypothesis 1b: In the negative frame condition, participants will select the “riskier” option significantly more than the “sure” option.

When faced with apparent losses, individuals are more likely to take risks. Consequently, when a gain is seen as certain (positive frame), individuals are more likely to be risk-averse and protect that gain (Kahneman & Tversky, 1979). In the current study, confidence in the selected frame will be measured by the probability of selecting the “sure” response. Therefore, the following is hypothesized:

Hypothesis 2: The relationship between risk propensity and framing confidence (as measured by the probability of selecting the “sure” response) will be moderated by the frame (positive vs. negative) such that although selecting the sure response will
decrease regardless of frame, the decrease will be stronger when participants are exposed to a negative frame than when they are exposed to a positive frame.

Exploratory analyses were conducted utilizing a maverickism measure developed by Gardiner and Jackson (2012) to determine whether future research in this area may be warranted.

**Method**

**Participants**

This sample was taken from Amazon’s Mechanical Turk (MTurk). Participants in this study had to be at least 18 years of age, currently employed in the U.S. and have at least a 95% HIT (human intelligence tasks) approval rate with a minimum of 50 HITs completed. Participants were compensated $.50 for satisfactory completion of all required items and correctly answering the quality checks. A total of 176 usable responses were collected: 92 males (52.3%), 83 females (47.2%), and one (.6%) who preferred not to answer. Sample sizes for positive and negative frame conditions were $n = 85$, and $n = 91$, respectively. The average age of participants was 36.7 years ($SD = 13.27$).

**Measures**

**Risk propensity.** Risk propensity was assessed using the General Risk Propensity (GRP) scale developed by Hung and Tangpong (2010) and Hung, Tangpong, Li, and Li (2012). It consists of five items measured on a 7-point scale ranging from 1 (very inaccurate description) to 7 (very accurate description). Higher scores reflect a greater tendency to take risks. Coefficient alpha for this study was .82.

**Framing Confidence.** Participants were given a vignette describing a business scenario and potential outcomes, which involved a company acquisition and the potential
loss of jobs. One group was given two options in a positive frame and the other was given two options in a negative frame. Each had the same information and end result, but presented differently. Participants selected one of the two options presented (sure or risky), then rated their level of confidence in their decision from 51%–100%. Framing confidence was measured by the probability of selecting the “sure” response such that for individuals who chose the “sure” option, their confidence rating was simply the number reported, whereas for those who chose the “risky” option, their rating was subtracted from 100 to obtain the probability that they would have selected the “sure” response. That is, someone who chose the “risky” option and indicated 75% confidence would have a framing confidence score of 25 (100-75), to reflect the probability that they would have selected the “sure” response and to provide a consistent interpretive meaning to the variable.

**Maverickism.** Maverickism was assessed using a scale developed by Gardiner and Jackson (2012). It consisted of seven items developed to assess functional characteristics of maverickism in a work setting, and was measured on a 3-point scale, 0 (false), 1 (can’t decide), and 3 (true). Coefficient alpha for this study was .63.

**Procedure**

Data was collected using MTurk and SurveyGizmo. Participants were informed that the general purpose of the study was to investigate decision-making tendencies in the workplace. Due to the sensitive nature of the demographic information, the highest level of anonymity SurveyGizmo allows was used. This ensured that information such as IP addresses or geotracking data was not reported.
A link was provided through MTurk, sending participants to the survey, presenting them with the MTurk interface. Participants first completed the GRP scale. Next, participants were randomly assigned to either the positive or negative frame condition by the SurveyGizmo website, where they were presented with a scenario, followed by one of the two decision options. After selecting either option A or B, participants rated how confident they were only in their decision on a scale ranging from 51%–100%. Next, participants completed the maverickism scale followed by demographic questions.

Results

Binomial tests were conducted to test Hypotheses 1a and 1b, which assessed the proportion of participants in each condition selecting the “sure” vs. “risky” option. Hypothesis 1a stated that in the positive frame condition, participants would select the “sure” option significantly more than the “risky” option. The observed proportion of .64 for the “sure” option differed significantly from .36, the proportion that selected the “risky” option, one-tailed, $p < .001$. Hypothesis 1a was supported. Hypothesis 1b stated that in the negative frame condition, participants would select the “risky” option significantly more than the “sure” option. The observed proportion of .54 for the “risky” option did not differ significantly from .46, the proportion that selected the “sure” option, one-tailed, $p = .081$. Hypothesis 1b was not supported.

A multiple regression was conducted to test Hypothesis 2, which assessed the moderation of the relationship between framing confidence (as measured by the probability of selecting the “sure” response) and the GRP scale by the frame presented. The multiple regression consisted of framing confidence as the criterion variable, GRP
scores as the primary predictor variable, and frame condition as the moderator variable. GRP scores and frame condition (dummy coded) were entered in step one, and significantly predicted framing confidence, $F(2, 173) = 8.29, p = .006$. The GRP x frame product term was entered in step two in order to test for moderation, and the interaction between GRP scores and frame condition accounted for variance above and beyond the predictors alone, $\Delta R^2 = .035$, $F(1, 172) = 6.92, p = .009$.

The obtained moderation showed that although the confidence in selecting the “sure” response decreased regardless of frame, the decrease was stronger when participants were exposed to the negative frame, which had a significant decrease, than when exposed to the positive frame, which did not have a significant decrease. Based on the presence of a significant product term and the form of the observed moderation, Hypothesis 2 was supported.

Follow up analyses were conducted to assess the strength of decrease in framing confidence (as measured by the probability of selecting the “sure” response) per frame. GRP scores were divided into thirds (low, medium, and high). For each frame, independent-samples $t$ tests were conducted to compare framing confidence with low GRP scores to framing confidence with high GRP scores. In the positive frame, no significant difference was found between framing confidence with low GRP scores ($M = 58.76, SD = 19.10$) and framing confidence with high GRP scores ($M = 58.06, SD = 28.21$), $t(64) = .12, p = .907$. In the negative frame, a significant decrease was found between framing confidence with low GRP scores ($M = 57.08, SD = 23.19$) and framing confidence with high GRP scores ($M = 33.26, SD = 25.02$), $t(69) = 4.16, p < .001$, $d = .99$. 
Exploratory Analyses

There was a significant positive relationship between the GRP scale and maverickism scale, $r(174) = .45, p < .001$. A significant negative relationship was found between age and maverickism, $r(174) = -.201, p = .008$. A significant negative relationship was found between age and risk propensity, $r(174) = -.18, p = .018$. Results of a one-way ANOVA showed a significant difference between race and the probability of selecting the “sure” response, $F(5, 169) = 4.09, p = .002, \eta^2 = .12$. Tukey HSD post hoc tests revealed that Multiracial/Multi-ethnic participants ($M = 6.67; SD = 11.55$) rated their framing confidence significantly higher than participants who identified as Caucasian/Non-Hispanics ($M = 52.22; SD = 24.67$), Black or of African American descent ($M = 57.35; SD = 27.11$), Asian ($M = 36.7; SD = 22.19$), and Indian ($M = 84.00; SD = 13.89$). Additionally, Hispanic/Latino participants ($M = 36.7; SD = 25.73$) rated their framing confidence significantly higher than Indian participants ($M = 84.00; SD = 13.89$). Due to the small sample sizes for many of the racial/ethnic groups, these results should be interpreted with caution.

Discussion

The purpose of this study was to examine the relationship between risk propensity and situational framing in the workplace. Hypotheses 1a and 1b assessed the proportion of participants that selected the “sure” vs. “risky” option in a positive or negative frame. In the positive frame, significantly more participants selected the “sure” option than the “risky” option, supporting Hypothesis 1a. In the negative frame, there was no significant difference between the number of participants who selected the “sure” option and those who selected the “risky” option, failing to support Hypothesis 1b.
Previous research provides two competing theories regarding decision-making: utility theory and prospect theory. According to utility theory, potential final outcomes are the focal point of a decision, rather than how a situation is presented. Conversely, prospect theory states that the way a situation is framed (positively or negatively) will be what influences the decision. Only the positive frame saw a significant difference in selection, which does not support utility theory, and only partially supports prospect theory in that significant risk-aversion was found in the positive frame.

Hypothesis 2 assessed the relationship between framing confidence (as measured by the probability of selecting the “sure” response) and scores on the GRP scale by frame condition. GRP scores and frame condition were found to significantly predict the probability of selecting the “sure” response. Furthermore, the significant GRP x frame product term indicated the presence of moderation of the risk propensity-framing confidence relationship by framing condition, such that as risk propensity increased, the negative frame led to a stronger decrease in the probability of selecting the “sure” response than the positive frame.

Exploratory analyses were conducted using a maverickism scale developed by Gardiner and Jackson (2012). A significant positive relationship was found between maverickism and risk propensity. A significant negative relationship was found between age and maverickism, and age and risk propensity, which indicates that risk taking may decline with age. However, the reason for the direction of this relationship was not assessed in this study, nor can firm causal statements be made based on the present data. A number of significant differences were found between different races and the level framing confidence. Although significant results were found, sample sizes for five of the
six race categories were small. However, the effect size for the one-way ANOVA treating race as a research factor was large ($\eta^2 = .12$; Green & Salkind, 2011).

**Contributions**

This study built on previous research based on prospect theory by using positive and negative frames, a risk propensity measure, and a confidence rating, all in a business-related context. Based on previous prospect theory research, we would have expected both Hypothesis 1a and 1b to be supported. That is, we would have expected participants in the positive frame to select one option significantly more than the other, and for participants in the negative frame to receive significant results in the opposite option significantly more than the other. Although in the negative frame, the “risky” option was selected more than the “sure” option, which was in the hypothesized direction, the difference was not significant. This is interesting from a theoretical perspective because of the nature of the manipulation, which consisted of altering the wording of the scenario to reflect the retaining of jobs vs. the loss of jobs. The difference in wording resulted in a different choice based on frame, with one frame yielding significant results and the other yielding non-significant results, but in the right direction.

In the positive frame, 8 out of 85 participants failed the manipulation check, whereas in the negative frame, 50 out of 91 participants failed the manipulation check. The only difference between the frames was the language used to describe the situation, specifically using “retain” and “lose.” The proportion of participants who selected the “risky” vs. “sure” options differed in the positive frame, but not in the negative frame. However, the negative frame did lead to a greater reported likelihood of selecting the “risky” response than the positive frame.
Perhaps the most notable and interesting results came from the framing confidence (as measured by the probability of selecting the “sure” response) aspect of this study and the moderation of its relationship with risk propensity by frame presented. There was a difference in the probability of selecting the “sure” response between frames, such that as risk propensity increased, there was a greater decrease in the probability of selecting the “sure” option, which corresponded to a greater probability of selecting the “risky” option, in the negative frame than in the positive frame. When presented with a multiple options, participants are likely to show greater confidence in a “risky” decision when it is presented in a negative frame than in a positive frame, supporting arguments by Kahneman and Tversky (1979).

A number of practical implications can be drawn from these results. For example, using this study’s scenario, if a business were to restructure, and multiple proposals were made regarding the direction to go, a specific frame could be used to increase the chances of obtaining a desired result. If an employer or employee were proposing a new product, process, or idea, a different frame could be used in their favor when presenting the potential risks and benefits.

Limitations and Future Research

A potential limitation is the strength of the framing manipulation, as it was not an exact replication of prior research. The two frames were modeled off the research by Kahneman and Tversky (1979) and adapted for a business setting. It is possible that participants may have recognized that both options within the frame had the same outcome, but were presented differently, which may have affected their decision. Future research should address framing and risk propensity by using a more detailed, and
potentially more complicated scenario that reflects a more realistic situation encountered in an organization.

A second potential limitation is the hypothetical nature of the study. The choice made did not have an impact on their personal or work life. This relates back to an individual’s motivation to complete the study accurately and truthfully. Without any repercussions, participants may not have given as much thought to their decision as they would have at work. Future research should use a real issue an organization is currently facing. This would allow researchers to address organizational goals and potential obstacles, thus providing more insight into the decision-making process. This would provide real consequences, and perhaps give more attention to situation at hand.

Conclusion

This study investigated the relationship between risk propensity and situational framing in the workplace. Support was found for prospect theory, such that the way a situation is framed will affect the decision made. Specifically, as risk propensity increases, the probability of selecting the “risky” option increases in a negative frame significantly more than in a positive frame. Future research should be conducted using various frames as well as the nature of risk propensity. However, this study provides important implications regarding the relationship between risk propensity and framing.
References


http://www.siop.org/tip/oct11/03barger.aspx


Appendix A

Five-Item General Risk Propensity Scale

The General Risk Propensity scale is protected by copyright, so it is not reproduced in this document.
This measure is made available in the following reference:


http://www.pittstate.edu/department/economics/journal-of-managerial-issues/
Appendix B
Demographics

1. What was the focus of the organization?
   - Employees retaining their jobs
   - Employees losing their jobs

2. Gender:
   - Male
   - Female
   - Prefer not to answer

3. Age (fill in):

4. Race (select one):
   - Caucasian/Non-Hispanic
   - Black or of African descent
   - Hispanic/Latino
   - Asian
   - Indian
   - Native Hawaiian or Other Pacific Islander
   - Native American
   - Multiracial/Multi-ethnic
   - Prefer not to answer
   - Other (please specify):
Appendix B (Cont)

5. Highest education level achieved:

☐ Some high school
☐ High School diploma or equivalent
☐ Associate’s degree
☐ Bachelor’s degree
☐ Master’s degree
☐ Doctorate
☐ Other professional certifications (please specify):

6. In my current job, I would best be described as a:

☐ Non-supervisor
☐ Team Leader
☐ Manager
☐ Senior Executive

7. How long have you worked at your current company?

☐ 0-6 months
☐ 7-12 months
☐ 1-3 years
☐ 4-6 years
☐ 7-10 years
☐ 11-14 years
☐ 15+ years
Appendix B (Cont)

8. Mechanical Turk user identification number (needed in order to process your payment; this will be deleted from the data set prior to conducting any analyses, to ensure total anonymity of your responses):
Appendix C

Quality Check Items

1. Please select "2" for this item.
   Will be inserted as the second item in the General Risk Propensity scale.

2. Please select "5" for this item.
   Will be inserted as the fourth item in the General Risk Propensity scale.
Appendix D

Positive and Negative Frames

A large corporation is planning to acquire another company that only has 300 employees, and is going to have to restructure the workforce. Two alternative plans for restructuring are being considered:

*Positive Frame*

If the company uses restructuring plan A, 100 employees in the acquired company will retain their jobs. [sure]

If the company uses restructuring plan B, there is a one-third probability that 300 employees in the acquired company will retain their jobs, and a two-thirds probability they will not retain their jobs. [risky]

*Negative Frame*

If the company uses restructuring plan A, 200 employees in the acquired company will lose their jobs. [sure]

If the company uses restructuring plan B, there is a one-third probability that no one in the acquired company will lose their job, and a two-third probability that 300 employees will lose their jobs. [risky]
Appendix E

Maverickism Scale

The General Risk Propensity scale is protected by copyright, so it is not reproduced in this document.
This measure is made available in the following reference:

August 6, 2014

Bryce Hansell
2834 Losantiville Terrace
Cincinnati, OH 45213

Re: Protocol #14-008, The Relationship between Risk Propensity and Situational Framing in the Work Place

Dear Mr. Hansell:

The IRB has reviewed the materials regarding your study, referenced above, and has determined that it meets the criteria for the Exempt from Review category under Federal Regulation 45CFR46. Your protocol is approved as exempt research, and therefore requires no further oversight by the IRB. We appreciate your thorough treatment of the issues raised and your timely response.

If you wish to modify your study, including the addition of data collection sites, it will be necessary to obtain IRB approval prior to implementing the modification. If any adverse events occur, please notify the IRB immediately.

Please contact our office if you have any questions. We wish you success with your project!

Sincerely,

[Signature]

Kathleen J. Hart, Ph.D., ABPP
Vice Chair, Institutional Review Board
Xavier University

KJH/dob
Appendix G

Informed Consent

You are being asked to participate in a research project conducted by Bryce Hansell as part of a Master’s thesis at Xavier University. The purpose of this study is to examine factors related to decision-making.

In this study, you will complete a short survey, read a workplace scenario, and answer questions about that scenario. Finally, you will be asked to respond to a series of demographic items. The total time to complete this task is approximately 20 minutes, but you will be given 1 hour to complete the entire survey.

There are no known risks associated with this study, and your participation is entirely voluntary. You are free to withdraw from the study at any time without penalty. You will be paid $0.50 for participating in this study. **However, please note that if you do not complete all required items, or if you do not pass the quality and attention checks, you may not be eligible for compensation.** You must be at least 18 years of age to complete this study.

Although you will be required to enter your MTurk unique worker ID at the end of the survey to receive compensation if eligible, the researchers will not be able to access any identifying information you provided to Amazon or MTurk. Furthermore, the researchers will be the only individuals with access to your responses. Therefore, your responses will remain anonymous. Finally, no analyses of any kind will be conducted prior to the removal of all MTurk ID numbers from the data set.

If you have any questions at any time during the study, you may contact the principal investigator, Bryce Hansell at hansellb@xavier.edu or his faculty advisor, Dr. Morrie Mullins at mullins@xavier.edu. Questions about your rights as a research subject should be directed to Xavier University’s Institutional Review Board at 513-745-2870.

By clicking “Next,” you agree to the following statement:

I have been given sufficient information about this research study and the risks and benefits involved. I freely give my consent to participate in this research project.
Appendix H

MTurk Interface

Instructions

I am conducting a study on the factors related to an individual’s decision-making tendencies in the workplace. This consists of short surveys, reading a workplace scenario, and will take approximately 20 minutes. **Please note that you will have to enter your unique ID TWICE, once HERE and once at the END of the study in order to be compensated, if eligible.**

1. Please enter your unique identifier located on the MTurk Dashboard. Enter your MTurk ID in the box below.

   Also, please SAVE your unique identifier because you will be required to enter it once again AT THE END OF THE STUDY.

2. Please click the link located below in order to access the survey. **After you complete the survey, click the "Submit" button below.**

   **Survey Link:** [Survey Link will be added once survey is completed]

   **Mechanical Turk ID:** [Box will be included here where ID should be entered]

   [SUBMIT]
Appendix I

Decision Options

A large corporation is planning to acquire another company that only has 300 employees, and is going to have to restructure the workforce. Two alternative plans for restructuring are being considered:

**Plan A:** If the company uses restructuring plan A, 100 employees in the acquired company will retain their jobs.

**Plan B:** If the company uses restructuring plan B, there is a one-third probability that 300 employees in the acquired company will retain their jobs, and a two-thirds probability they will not retain their jobs.

Which plan would you recommend they choose?

☐ Plan A

☐ Plan B

How confident are you in your decision to choose that plan?

*Enter a percentage between 51% and 100%:* ________%
Appendix I (Cont)

A large corporation is planning to acquire another company that only has 300 employees, and is going to have to restructure the workforce. Two alternative plans for restructuring are being considered:

**Plan A:** If the company uses restructuring plan A, 200 employees in the acquired company will lose their jobs.

**Plan B:** If the company uses restructuring plan B, there is a one-third probability that no one in the acquired company will lose their job, and a two-third probability that 300 employees will lose their jobs.

Which plan would you recommend they choose?

- [ ] Plan A
- [ ] Plan B

How confident are you in your decision to choose that plan?

*Enter a percentage between 51% and 100%:* __________%