FRAMING, MOOD EFFECTS, AND RISKY DECISION MAKING IN CHILDREN, ADOLESCENTS, AND ADULTS

by Steven Michael Estrada

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Risky decision making, and how it changes over the lifespan, is important for theory and public policy. Studies examining decision making from childhood through adolescence on to adulthood have rarely examined choice on the same task. However, this is crucial in order to fully understand the factors that affect decisions through development and to make defensible comparisons. A framing task was administered to groups of 2nd graders (n = 31), adolescents (n = 35), and adults (n = 41). Of interest is how factors affected choices between a sure option and an option that involved risk. In addition to choices, ratings were elicited on a 7-point smiley-face scale to indicate degree of preference. Factors that were examined include frame (gain, loss), risk (.5, .67, and .75), reward magnitude ($5, $20, and $150), induced and measured mood of the decision maker (positive, neutral, or negative), and the decision makers' optimism. Repeated measures analysis of variance revealed that participants chose the gamble option more when options were presented as losses versus when they were presented as gains (a standard framing pattern). Overall, participants chose the gamble most at the lowest risk level (defined as the probability of the bad outcome in the gamble), and chose the gamble less often as the reward magnitude increased. This effect was qualified by a reward magnitude by age group interaction. The decreasing trend in choosing the gamble was found only for adults and adolescents. The decrease in choices of the gamble as magnitude differences increased (favoring the gamble) is further evidence for fuzzy-trace theory's

explanation that standard framing results from gist-based processing in adults. Children's opposite trend, favoring larger outcomes in the gamble, is consistent with fuzzy-trace theory's developmental prediction that younger subjects would be more verbatim processors. Negative mood was found to increase verbatim processing, indicated by an increase in reverse framing (greater preference for the gamble in the gain frame than in the loss frame, the opposite of standard framing). Participants in neutral and positive moods showed the standard framing pattern. Decisions were not found to be influenced by the level of optimism.

BIOGRAPHICAL SKETCH

Steven Michael Estrada was born to Abel and Janie Estrada in San Angelo, Texas on January 31, 1976. He has two siblings, Rebecca Michelle Culwell and Abel F. Estrada Jr. He spent his early life in Texas, attending Haltom High School and receiving his B.A. in psychology from the University of Texas at Arlington. In 2003, he joined the Laboratory for Rational Decision Making at Cornell University to pursue a doctoral degree in Human Development. He has held faculty positions at Indiana University and Stephen F. Austin University.

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CHAPTER 1

INTRODUCTION

For development, the concepts of learning and change are fundamental. Learning is best characterized as a change in response to the same stimulus, or, from a cognitive perspective, as a change in understanding (Kuhn, 2006). In some formulations, learning is not necessarily characterized as the attainment and application of knowledge, but merely a change in response to similar environmental cues. One way to characterize this change is to think of it as relating to a changing relationship between two environments, an “inner” environment comprised of the physiological components of an organism and the “outer” environment. In this framework, learning can be thought of as changing correlations between conceptual objects, objects including the entire landscape (people, colors, and words; anything not of the organism) of the outer environment, and the operations of the inner world of the organism, including cognitions, attitudes, beliefs, sensations, and perceptions. What changes in this associative framework through development is the ability of the current environment to alter response of the inner environment, even to the point of judgments and decisions becoming more greatly influenced by the internal environment of the person. Essentially, this internal environment reflects our experience with the external environment and it is the context of our experience that defines the nature of this association between the “inner” environment and the “outer” environment.

With respect to decision making, based on experiences with loss and risk, older theoretical models have presumed that young children rely on intuitive judgments when making a decision, and what develops into adulthood is greater reliance on combinations of perceived risk and reward, an analytic

process. However, this idea is not very well supported by the data. For example, Reyna and Ellis (1994) administered a framing task to older and younger children. For the task, participants had a choice between a sure option and a gamble that involved risk, presented as either gains or losses. For the gain frame, participants were asked to choose between *winning* a certain amount and taking a chance and maybe winning a larger amount or winning nothing. For the loss frame, participants were first given an endowment, and asked to choose between *losing* a certain amount of money and taking a chance and maybe losing nothing or losing the total endowment. Standard findings on such framing tasks reveal that adults will shift their preference toward choosing the gamble if options are presented as losses versus when they are presented as gains. This is presumably not a rational thing for people to do, because across frames, options remain mathematically equivalent , i.e., winning 5 dollars is mathematically equivalent to being given an endowment of 10 dollars and losing 5; the net gain is 5 dollars for both frames. Reyna and Ellis found that young children (mean age 4 years 8 months) were not susceptible to framing effects, instead showing consistency across frames. This result is consistent with young children attending to both the risk and reward outcome of each option, and, regardless of frame, basing their decision on the end value. However, framing effects were found to emerge in older children (mean age 11 years, 1 month). This finding is proposed to occur because of gist-based decision-making (Reyna & Ellis, 1994).The standard framing pattern is gist-based because research has shown that decision-makers choose the sure option in the gain frame because they reduce the options to gaining something (sure thing) versus either gaining something (prizes in this experiment) or gaining nothing (gamble option) and

losing something (sure frame) versus losing something or losing nothing (gamble) (Reyna & Brainerd, 1991). They then retrieve values stored in long-term memory such as “Getting something is better than nothing” and “Losing nothing is better than losing something.” Mapping these values onto the representations yields preferences for the sure option in the gain frame (because gaining something is better than gaining nothing) and for the gamble in the loss frame (because losing nothing is better than losing something); see Reyna (2008).

Young children, in contrast, rely more often on verbatim representations in their decision process. Verbatim representations are exact representations of the decision scenario, retaining all details including numerical values. For this task, outcome magnitudes were kept constant across frames. Therefore, focusing on verbatim detail favors consistency across frames. In the associative framework presented earlier, the data can be interpreted as a greater influence of the external environment. In this case, the explicit risks and outcomes were more likely to be processed and influence decisions made by younger children as opposed to older children. Other research on developmental differences in framing and “reflection” effects has shown that even young children exhibit loss avoidance when “losses” are not actually net gains (i.e., a reflection effect presumably caused by loss aversion, first reported in children by Reyna, 1996). For example Levin and Hart (2003) found that young children were more sensitive to losses (preferring a gamble over a sure option) when compared to options involving equivalent gains. Further, Schlottmann and Tring (2005) and others found that young children were found to incorporate outcomes and probabilities in their judgments (see Reyna & Brainerd, 1994) Yet for choice behavior, they found no

developmental differences (in contrast to other developmental studies of framing, contradicting earlier studies by Schlottmann, by Levin, and by others, e.g., Levin & Hart, 2003); children showed a standard framing pattern, in contrast to Reyna and Ellis (1994). One key difference between these studies, however, is their procedures. In Reyna and Ellis, participants were asked to choose for themselves, but in the Schlottman and Tring study, children were asked what a doll should decide to do if presented these options. Perhaps deciding for yourself produces an evaluation crucial to the underlying process, though more studies are needed to find if this difference is crucial in producing framing. This may explain the differences in the results between the two studies.

There are many instantiations of the current environment that can be examined with respect to their influence on decisions. The current research will look at effects of emotion, risk, and reward through development on a standard framing task. First, a brief overview of decision making in general will be presented. Next, theories and data with respect to emotion, and emotion as it relates to decision making will be discussed. Finally, a theoretical framework, fuzzy-trace theory, will be used to discuss hypotheses regarding performance on this framing task and how it should differ with respect to development.

The development of decision making

According to Byrnes (2005), "what many developmental scientists, parents, and policymakers really want to know is whether decision making improves with age and whether children possess adequate levels of decision-making competence by the time they reach early adulthood." Inherent in this statement is the requirement that one define what constitutes a competent decision. One definition common to examining the quality of decision making

is the idea that good decisions are rational decisions. Rationality has come to mean “sane”, or “calculated”, or in other formulations, has become synonymous with “intelligent” or “successful” (March & Heath, 1994). However, determining the criteria for rationality still is under debate. One way to identify criteria for what constitutes rational behavior is to draw a distinction between coherence and correspondence. Under the coherence criterion, what is considered good, rational decision making is to examine whether or not the underlying decision process follows a logical, valid, and consistent rule-based process that realizes the goals of the decision maker. If decisions are found to found to fit this criterion, they are rational. A second way to define criteria for rational decisions is with correspondence criteria (Reyna & Farley, 2006). These criteria define good decisions with regard to real outcomes in the world. To offer an example to illustrate the coherence/correspondence distinction, consider smoking. Under the coherence criterion, if one’s goal is to satisfy the urge to smoke, then acting to achieve this goal defines the decision as rational. However, under the correspondence criterion, taking into account the outcomes resultant of choosing to smoke must be undertaken in order to assess the rationality of the decision. From this perspective increased health care costs due to smoking-related illness (those paid by the smoker) and increased negative outcomes for the smoker (health, appearance, social isolation), imply that smoking is decidedly an irrational decision.

Another way to inform rationality and good decision making is to examine decision making from a developmental perspective. From this perspective, one can argue that adults, overall, tend to make more rational and informed decisions than children. To this end, one can then ask “what changes” as people mature. With respect to choice behavior, one can ask

what factors distinguish the decision making process of children, adolescents, and adults.

For most models of decision-making, risk perception plays an important role in determining decisions. These models are generally based on the expectancy-value principle. Essentially, in defining the overall expected value (or expected utility) of any option, rational decision makers should combine outcomes with the probability of those outcomes to produce a valuation of that option. Rational choice in this context is choosing the option that has the higher expected value. When incorporating risk into the equation, risk acts to lower the expected value of an option therefore, options with higher perceived risk are options to be avoided. With respect to development, research has shown that for many instances, risk perception between adolescents and adults differs very little, if at all. For instance, Beyth-Marom, Austin, Fischhoff, Palmgren, and Jacobs-Quadrel (1993) asked adolescents and adults to produce consequences to many risk-taking activities (for instance, sex, drinking, smoking, and hang gliding) and found that the number and quality of consequences produced did not differ. Also, adolescents engaged in risky behaviors reported being at more risk than adolescents not doing the behavior. For instance, smokers reported being at higher risk than nonsmokers for lung cancer and adolescents having sex reported being at greater risk for contracting STD's (Johnson, McCaul, & Klein, 2002). In addition, it has been shown that both risks and benefits are important predictors of adolescent decisions to engage in risky behaviors (Arnett, 2000; Goldberg, Halpen-Felscher, & Millstein, 2000). In addition, research shows that adolescents take more risks when compared to adults across many domains; for instance, they are involved in more driving accidents and have

higher rates of unplanned pregnancies (Centers for Disease Control and Prevention, 2006). Taken together, this supports the idea that adolescents do understand that they are at risk, and that differences in behavior cannot be attributed to differences in risk perception.

Instead, what seems to change is the influence of the environment on current decisions. Through associative connections of consequences of the external environment to the internal environment, responses become less and less variable, and less dependent on changes in the environment. One theory that offers an explanation for the associative framework presented earlier is fuzzy-trace theory. Fuzzy-trace theory (FTT) is a theory of memory, reasoning and decision making that explains findings in each domain by offering that the nature of representation of experience exists in the mind in two forms. The verbatim form (or trace when applying FTT to memory) retains surface form information. In the initial associative framework presented, the relationship between the environment and the verbatim trace is defined as highly correlated. The gist trace is an extraction of meaning from the environment and this meaning is closely correlated with the internal environment, itself a reflection of experience. Gist traces retain relational bottom-line information. Gist traces are less precise than verbatim traces and FTT posits that mature decision-makers rely less on verbatim traces and more on gist traces in their decisions ("the fuzzy-processing preference," Reyna & Brainerd, 1991). One clear hypothesis regarding this is that mature decision-making is characterized by less and less influence of the details in the current environment in decision processes, and that mature decision makers reduce information to simpler representations when making a decision. For instance, Reyna and Brainerd (1991) found that numerical information was not required to produce standard

framing patterns in choice and that participants truncated redundant information when making decisions (as well as other critical tests of prospect theory and fuzzy-trace theory; see Kuhberger & Tanner, 2010). This suggests that one enduring tendency of adult decision making is the reduction of information.

Emotion and Decision Making

A thorough examination of emotion through scientific means has been limited. One issue seems to be how to properly define what constitutes an emotion. Beginning with William James, one central idea with respect to emotion is the relationship of components central to the experience (valence, arousal, motivation, goals, and appraisals) and physiological measurements manifest in the experience (James, 1884). His main idea was that what we "feel," defined here as the central components of the emotional experience, occurs after visceral activation. That is, we feel "bad" because we are crying, not that we cry because we feel "bad." This distinction between the cognitive and the perceptual aspects of emotion has been a critical point of debate (Chartrand, 1997). On one side of the debate, theorists assume that each discrete emotion coincides with a distinct pattern of physiological reactions and behavioral responses (Ekman, 1999; Ledoux, 1996; Panksepp, 2000). These theorists draw correlations between physiological measures, such as the movement of facial muscles, hormonal responses, and autonomic responses that occur in response to environmental cues. These responses occur in distinct patterns and give rise to the natural categories of emotion common to most people, including anger, sadness, fear, and disgust. Extending from this framework, neuroscientific approaches to explaining emotion also posit an underlying neural pattern that is distinct to each emotion (Griffiths, 1997; although recent

evidence has failed to produce any consistent neural correspondence). In this framework, emotion *is* the physiological response. Work in this vein proceeds by studying the correlations between the distinct physiological states and behavior. For instance, if a cluster of physiological responses produces aggressive behavior in the presence of distinct formulations of the environment, that cluster can be defined as *anger,* and hence the relationship between anger and the environment becomes clearer.

Another approach to studying emotion posits that appraisals specifically tied to discrete emotions are essential in defining what an emotion is (Lazarus, 1984; Lerner, 2000). This approach is more concerned with the function of emotion and posits that each emotion is closely tied to cognitive appraisals of the situation. Appraisal (or attributional) theories posit that along with physiological and behavioral markers that define discrete emotions, each emotion coincides with specific cognitive appraisals (Siemer & Reisenzein, 2007; Lazarus, 1991; Lerner & Keltner, 2004). For instance, Smith, Kayne, Lazarus, and Pope (1993) argue that each emotion has along with it a core relational theme that is common among all instances of that emotion and, along with this core relational theme, there are specific appraisals associated with each emotion. Given an environment that elicits an emotional response, appraisal theorists analyze the response with respect to volition on the part of the organism. For example, anger has a core relational theme of other-blame and occurs in conjunction, or as a result (a point not made clear by these theorists), with appraisals that the experienced environment (the moment antecedent to the experience, the perceived moment, and the outcome) is motivationally important, not in congruence with goals, and is judged an intentional act. Happiness has with it a core relational theme of success and

the appraisal tendencies of being motivationally relevant, congruent with goals, and is associated with positive future expectations (Smith et al., 1993). Studies taking this approach generally expose participants to scenarios that elicit emotional responses, and ask them to make appraisal judgments concerning the scenarios (i.e., how would you appraise this situation?) These studies have generally found a strong relationship between the judgments of appraisal and judgments of discrete emotion (Smith et al, 1993;. Seimer and Reisenzein, 2007). Further, it has been found that these appraisals are integral in defining the emotion. With respect to judgment and choice, Lerner and Keltner found that, beyond valence, judgments of risk and choice were influenced by the induced emotion, and this effect was mediated by the cognitive appraisals. They found that though two discrete emotions, sadness and anger, were consistent with respect to valence (both are negative), they produced different results in choice behavior. Anger was found to be associated with a tendency to be risk-seeking, while sadness was found to be associated with risk avoidance (Lerner & Keltner, 2001).

Other approaches to studying emotion have focused on dimensions of measurement that constitute an emotion (Bradley, 1994; Ochsner, 2000). These approaches argue that emotion is best characterized as a multidimensional composite defined along the dimensions of valence, arousal, and dominance, often referred to as affect rather than emotion. Valence is defined as the relative goodness (positive) or badness (negative) of the object or situation. Arousal is a measure of the level of physiological change that the stimulus (or emotion eliciting environment) produced. Dominance is the tendency for the stimulus to overshadow other stimuli and remain central to attention. Though dominance as a true construct is debated, it is clear that

stimuli can be distinguished along the dimensions of valence and arousal. From this approach, Ochsner (2000) was able to show that with respect to memory, negative stimuli were more likely to be remembered, whereas positive information was more likely to be known. The researcher's interpretation was that the recall of negative words involves recall of exact experience, a process known as recollection (associated with a remember response), but recall of positive words was based only a process of familiarity (associated with a know response), that is, not a true recall of exact experience. Further, arousal was found to be associated with increases in recollection but not familiarity. Brainerd, Stein, Silveira, Rohenkohl, and Reyna, using a different methodology, conjoint recognition, found different results. For conjoint recognition, similarity judgments (similar to recollection judgments) are based on retrieval of verbatim traces, while identity judgments (similar to familiarity judgments) are based on retrieval of gist traces. These researchers showed that false memory was higher for negatively valenced words than either neutral or positively valenced material. Further, this was due to increasing similarity of meaning between true presented items and gist-consistent distracters that were not presented for the negative material. Further, participants were less able to use verbatim traces of memory to reject meaning consistent distracters, a process called recollection rejection. Of interest in this study is that the researchers controlled for arousal, therefore, results can be interpreted with respect to valence (Brainerd, Stein, Silveira, Rohenkohl, and Reyna, 2009). Taken together, it is clear that mood influences how we represent information.

Several theorists have argued that many theories of emotion do not take into account the dynamic nature of emotion (Parkinson, 2007; Suchman,

1987). For these theorists, emotions are continuously changing due to the situation and with respect to the goals of the organism, what Parkinson (2007) calls the situated view of emotion. In this view, emotions are not based on conceptual representations of the situation, and cognitive appraisals are not crucial to an emotional experience. From this perspective, emotions are immediate responses to the specifics of the situation. Anger need not be a product of appraisals but merely a quick response to the blockage of goals, in short, a cognitive antecedent involving a representation. In this case, an appraisal, is not a necessary component to explaining emotion (Parkinson, 2004; Parkinson, Fischer, & Mansteid, 2005).

Theorists have attempted to parse the constructs of affect, emotion, and mood. Emotions involve a reactive process. Affect has been characterized by the goodness or badness (or positive or negative) of the current state of the person. Emotions usually have specific antecedent causes and are intense and short in duration (Forgas, 1995). Mood is characterized as less intense, longer in duration and without a specific antecedent cause. Mood is a background state, a “frame of mind” that processes the environment with a positive or negative bias (Forgas, 1995, p. 89).With respect to cognition, emotions have a much clearer defined relationship, as the proximity of the antecedent cause of the emotion is readily available to cognitive resources. In addition, as discussed previously, the relationship between cognitive appraisals and the experience of discrete emotions has been supported by research. However, less is known about the effect of mood on decision making , which is important to understand and is one focus of the current study.

There is evidence that mood, affect, and emotion may systematically alter choice. For example, positive affect has been shown to cue positive

material in memory, increase the number of associates produced to neutral words, and increase positive judgments of others (Forgas & Bower, 1987; Isen et al., 1985; Teasdale & Fogarty, 1979). Isen and Patrick (1983) found that decision-makers under positive mood avoided large risks, preferring safer options when asked to choose among insurances. With respect to decision-making, Damasio's somatic marker hypothesis argues that objects, and objects can also be thoughts, cognitions, or deliberations of future acts, become tagged with affective states that naturally arise from physical responses to that object. Further, through repeated associations, these tags become stronger and useful in guiding behavior and decision-making. In support of this idea, Bechara and Damasio (1994) developed what has become known as the Iowa Gambling Task. In this task, decision-makers must learn which of four decks of will produce more gains if consistently chosen. Two of the decks produce large gains but also large losses and if consistently chosen from, will produce a net loss. The other, 'advantageous' decks produce small immediate gains but consistent choice will produce net gains. Bechara and his colleagues found that people with a certain type of brain damage were not able to switch their choices to the advantageous decks, instead, consistently preferring the large immediate gains. Though their subjects' memories, intelligence, and reasoning abilities were all normal and unaltered, what did change was their ability to experience and process emotional information. In addition, Slovic et al. (2004) posit that affect can act as a heuristic towards quick judgments and decisions. In this framework, decision-makers use their current affective state as a marker as to how they should decide. For example, Bateman, Trent, Peters, Slovic, and Starmer (2007) found that when evaluating small gambles, a 7/36 chance of winning $9,

judgments of these gambles were greatly influenced by the affective state of the participant. These gambles were seen as more attractive when a small loss (5 cents) was added to the gamble. The researchers interpret this as the feeling of loss induced by the addition provided a “feeling state” that the participant used to evaluate the option.

With respect to fuzzy-trace theory, the gist/verbatim distinction can be applied when examining emotional effects on relational (gist-based) versus item-specific (verbatim-based) processing. Storbeck and Clore (2004) found that induced positive affect was related to increased reports of false memory, but induced negative mood was found to increase accurate memories. In their affect-as-information approach, they argue that positive affect induces relational processing, but negative affect induces item-specific processing. Storebeck and Clore (1994) showed participants wordlists that contained a central theme. For instance, bed, wake, and snore are related by the central theme ‘sleep.’ The researchers found that participants under positively induced mood were more likely to report having heard a word that was related to the central theme but was not presented. Negatively induced affect was found to induce more accurate retrieval of items that were actually presented. The researchers interpret this data by arguing that affect acts as a gate towards specific processing. Negative affect induces item-specific processing, while positive affect induces relational processing. Relational processing is similar to gist-based processing in fuzzy-trace theory, while item-specific processing is related to verbatim-based processing. Therefore, interpreting the Storebeck and Clore data with respect to fuzzy-trace theory means that positive affect is more likely to be related to gist-based processing, while negative affect is related to verbatim-based processing.

Overview of the present study

The goal of the present study is to examine decision making from childhood to adolescence to adulthood. The same task was administered to all three age groups which allows for comparisons of choices across the three groups. A standard framing task (adapted from Reyna & Ellis, 1994) was given under three different emotion elicitation conditions (positive, negative, and neutral). (Schlottmann and Tring's, 2005, description of the Reyna and Ellis, 1994, task is not accurate; procedures here followed those of Reyna and Ellis.) Each participant was given a choice between a sure option and a gamble under three different levels of increasing risk (operationally defined as the increasing probability of the negative outcome occurring for the gamble) and three different levels of increasing reward magnitude. Each option was presented as either a gain or a loss and expected values remained constant within each level of reward magnitude (see table 1.1). Several hypotheses were evaluated. According to fuzzy-trace theory, framing effects are due to gist-based processing. This is due to reducing the information in presented options to simpler representations. In particular, choices in the gain frame are reduced to winning something in the sure option to winning nothing in the gamble, favoring the sure option. For the loss frame, the decision is reduced to losing something in the sure option and losing nothing in the gamble, favoring the gamble, a pattern that emerges with development (Reyna & Ellis, 1994). Fuzzy-trace theory further posits that decision makers retrieve relevant principles and apply these principles to the decision. For instance, for the sure option, decision makers reduce the information to winning something in the sure option to winning nothing in the gamble, and apply a principle such as "better to win something than nothing," favoring the gamble. Again, this

tendency to engage in gist-based decision processes increases with age. Therefore, the first hypothesis is that increased gist-based processing will be found with increased age. This will be shown by adults using less information (less precision and fewer dimensions) in their decision process than either adolescents or children, and by a greater tendency for adults to show the standard framing effect. Young children will not show standard framing effects, displaying consistency in their choices across frames, indicating that their decisions are more influenced by the objective details of the options. Second, positive emotion is predicted to lead to increased gist-based processing as indicated by a greater tendency to show standard framing effects, but negative emotion will show increased analytic processing (and thus amelioration of framing effects) when compared to participants in a neutral emotion. A final research question concerns the relationship between optimism and pessimism to decisions in the task. Results have shown that people engaged in risky behaviors have a more optimistic outlook on the outcomes of that behavior. For instance, smokers have been shown to have an optimistic bias with respect to negative outcomes for them (i.e. cancer) and that dispositional optimism is related to more positive views of the outcomes of gambles (Arnett, 2000; Gipson & Sambonmatsu, 2004). This would suggest that participants higher in optimism would be more likely to choose the gamble.

CHAPTER 2

METHOD

This chapter outlines materials and methodological details of the study. The general research question is concerned with the development of framing effects and the influence of emotional states on the decision making process. In addition, the relationship between optimism and choice behavior was also examined. Optimism was assessed using a scale previously delivered to children in the target age group (Ey et. al, 2005). The study was approved by the Institutional Review Board at Cornell University prior to implementation (project #08-06-053). A cross-sectional design was used to examine developmental differences in choice behavior with three age groups: Second graders, adolescents, and adults. Adult participants were recruited from Cornell University through SUSAN, an online experiment participation program. Adult participants received course credit for participation. Adolescent participants were recruited through face to face contact in Texas and New York, as well as through the SUSAN participation website. Adolescent participants received 5 dollars as compensation for participation. Child participants were recruited from Ithaca, Freeville and Dryden Independent School Districts located in upstate New York. For adult participants, consent was obtained prior to participation in the study. Young children were not compensated for participation. For child and adolescent participants, parental consent was obtained prior to obtaining assent from the participant. In section one (Participants) of this chapter, recruitment, consent, and compensation for participants is discussed. The following section, Materials, includes three subsections: the first subsection contains detailed information concerning the material used to manipulate emotional states in the participants. The second

subsection describes the choice task, including a description of the options. The third subsection contains a detailed description of scale items used to measure optimism/pessimism in our sample. Finally, the chapter concludes with a section describing the statistical analyses used in the dissertation: repeated-measures analysis of variance and bivariate correlation.

Participants

The study was run from October 2008 to July 2010. The Institutional Review Board (IRB) at Cornell University approved the study protocol prior to implementation. In total, 31 school age children participated (Mean age = 7.5 years, SD = .51, 67% female) in the study with no adverse events reported. Adolescents were recruited via face to face interaction with the researcher and received compensation of 5 dollars for participating. Written parental consent was obtained prior to obtaining assent from the participant. In total, 35 adolescents participated in the study (Mean age = 15.45, SD = .1.27, 49% female). Adult participants were undergraduates obtained from Cornell University located in central New York. Participants were recruited using the Cornell University recruitment website SUSAN. Participants received course credit for participation. In total, there were 41 adult participants (Mean Age = 21.5 years, SD = 4.22, 68% female).

Materials

Emotion Manipulation

Emotional state was manipulated using three movies shown to reliably induce positive (amusement), negative (sadness), and neutral emotional states in prior research (Fredrickson & Branigan, 2005; Gross & Levenson, 1995). The positive induction was a film clip entitled “Penguins” (2 min 6 sec) and depicts groups of penguins waddling, swimming, and jumping. The

negative induction was a clip from the movie “Bambi” (3 min 12 sec) and depicts the death of Bambi's mother. Finally, the neutral control condition – “Sticks” (1 min 33 sec) –presents an abstract dynamic display of colored sticks piling up and elicits virtually no emotion. Participants were asked to self report their emotional state prior to viewing the film clip and immediately after viewing. Participants reported their emotional state on a nine point smiley face scale ranging from +4 to -4 with four faces indicating increasing positive feeling and four faces indicating increasing negative feeling with a neutral face (labeled 0) indicating neither positive nor negative feeling (see Appendix A). Each participant saw only one valence of the mood induction video (either positive, negative, or neutral) prior to the choice trials, defining mood induction as a between-subjects variable.

Choice Task

Five spinners, 18 inches in diameter were, were used to illustrate the choice to the participant. One spinner, painted completely red always represented the sure option. Four spinners were presented in four proportions of red and blue, and represented the gamble; .5 red; .5 blue,.33 red; .67 blue, .25 red; .75 blue, and .2 red; .8 blue. The .2 red; .8 blue spinner was used in the practice trial. Each choice option was presented with the sure option spinner and one of the three trial spinners. The operational definition of risk was conveyed using each of the three levels of the gamble spinner by instructing participants that the gamble spinner involved chance. For each choice, the negative outcome was always associated with the blue proportion of the spinner, giving three increasing levels of risk; .5, .67, and .75. Each option was also presented in two frames, either as a gain or a loss. For the gain frame, each option was presented as either winning an option for sure (the sure spinner) or taking a

chance and either win more or win nothing (the gamble). For the loss frame, each participant was given an endowment and asked to choose between losing a sure amount of money and taking a chance at losing all their endowment or losing nothing. Loss trials and gain trials were presented in blocks of nine. Participants were asked to indicate which of the two spinners they would like to spin, with their choice recorded by the researcher. Each choice option was presented along with varying magnitudes of money associated with the outcome. The money was all fake 5 dollar bills arranged in groups of 5, 20, 50, and 100 dollars. This was done for ease of presentation, as well as making the larger values easily distinguishable. Each 5 dollar bill was 2.6'' by 6.1'' inches, the same dimensions as a real 5 dollar bill. Each fake 5 dollar bill also contained both sides. This was done to make the bill as authentic as possible. There were three levels of magnitude, small, intermediate, and large, which were factorially combined with each of the three levels of risk and each level of frame (Table 1.1). In total, there were 18 trials containing all factorial combinations of the three within-subjects variables, frame, risk, and reward magnitude. It is important to note that within each level of magnitude, expected value is kept constant (5 at the low level, 20 at the intermediate level, and 150 at the large level). After each choice, all participants were asked to report their level of confidence in their choice using a seven point smiley face scale ranging from a neutral face (1) to increasingly smiling faces (7) (Appendix A). Participants were told that if they indicated face 1 for their confidence that meant that they were not that confident and might switch their choice if asked again. For children, it was further explained that confidence means how “sure” you are in your choice. If they indicated a 7 on their confidence, participants were told that meant that they would not

change their choice if offered, even if offered multiple times. Upon completion of all choices, all participants were asked two questions, “What was going through your mind as you made the decisions?” and “Did you notice any difference between the times when you were winning money versus the times you were losing money?” Responses to these questions were recorded by the researcher with efforts to write down the response in as detailed a manner as possible.

Table 1. Factorial combination of risk, magnitude, and frame for gain frame.

	Risk		
Option	0.50	0.67	0.75
	Small Outcomes		
	EV = 5		
Sure	5	5	5
Gamble	10,0	15,0	20,0
	Intermediate outcomes		
	EV = 20		
Sure	20	20	20
Gamble	40,0	60,0	80,0
	Large outcomes		
	EV = 150		
Sure	150	150	150
Gamble	300,0	450,0	600,0

Table 2. Factorial combination of risk, magnitude, and frame for loss frame.

		Risk		
Option		0.5	0.67	0.75
	Small Outcomes			
	EV = 5			
		Endowment		
		10	15	20
Sure		5	5	5
Gamble		10,0	15,0	20,0
	Intermediate Outcomes			
	EV = 20			
		Endowment		
		40	60	80
Sure		20	20	20
Gamble		40,0	60,0	80,0
	Large Outcomes			
	EV = 150			
		Endowment		
		300	450	600
Sure		150	150	150
Gamble		300,0	450,0	600,0

Optimism/Pessimism

Items measuring optimism and pessimism were adapted from the Youth Life Orientation Test (YLOT), itself an adaptation of the Life Orientation Test first developed by Sheier, Carver, and Bridges (1994). The YLOT consists of

six items assessing optimism and six items assessing pessimism along with two filler items (Ey et. al, 2005). Each item was read aloud in random order with respondents rating their degree of agreement on a 5-point scale ranging from strongly disagree to strongly agree. In order to increase children's understanding of this scale, a new agreement response format was developed which presented a person nodding in agreement with varying degrees of vigor. For strongly disagree, the person was vigorously shaking their head side to side exhibiting strongly 'no.' For disagree, the person shook their head less vigorously. For neither agree nor disagree, the person did not move their head at all. For agree, the person nodded their head up and down indicating a 'yes' and for strongly agree, the person nodded even more vigorously. Each participant indicated their understanding by asking to indicate the face that is agreement with how they feel about the following probe statements; "ice cream tastes really good" and "homework is the most fun thing to do." Participants were required to point to the face which indicated their level of agreement with these statements. The majority of people responded favorably to the ice cream statement and unfavorably to the homework statement. If the participant responded with the opposite pattern (responding unfavorably to the ice cream statement), the participant was asked to clarify their response. Understanding of how to use the face agreement scale was indicated by proper responding to the probe statements (in agreement with how they really felt), for example, saying they did not like ice cream if they responded in disagreement to the probe statement. Upon displaying satisfactory understanding of how to use the face agreement scale, participants were then given the Youth Life Orientation Test. Item statistics and scale reliabilities are presented in Table 2.1 and 2.2.

Table 3. Item and scale statistics for measuring optimism

Item	Mean	SD
Each day I look forward to having a lot of fun	3.77	0.95
I usually expect to have a good day	3.72	0.92
When things are bad I usually expect them to get better	3.96	0.79
Overall, I expect more good things to happen to me than bad things	3.70	0.95
When I am not sure what will happen next, I usually expect it to be something good	3.29	0.89
I am a lucky person	3.41	1.07
Cronbach's α	0.79	

Note 1. Each item was measured on a five point scale ranging from strongly disagree to strongly agree, scored from 1 to 5.

Table 4. Item and scale statistics for measuring pessimism.

Item	Mean	SD
Usually, I don’t expect good things to happen to me	2.04	0.93
Each day I expect bad things to happen	1.84	0.88
No matter what I try, I do not believe anything is going to work	1.70	0.77
When things are good, I expect something to go wrong	2.33	1.07
Things usually go wrong for me	2.03	0.93
If something nice happens, chances are it won't be to me	2.27	1.08
Cronbach's α	0.75	

Table 4. (Continued)

Note 1. Each item was measured on a five point scale ranging from strongly disagree to strongly agree, scored from 1 to 5.

Procedure

The procedure used in this study was adapted from Reyna and Ellis (1994). Participants were seated across from the experimenter and tested individually. Following is the script used with children and adolescents at the beginning of the experiment:

> "Hello, your parents have said it is okay to ask you if you want to play a game. For this game, we are going to show you a brief movie and then ask you how the movie makes you feel. There is no right or wrong answer and you do not have to play if you do not want to. In between looking at the pictures, we will play a different game using these spinners. We will ask you to pick either this spinner (point to all-red spinner), or this spinner (point to red and blue spinner). You are not really going to spin the spinners, and you will not really win or lose real money, but please pretend like you really were about to spin the spinner and win or lose real money. After the game is over, you may spin the spinner if you want to. Remember, there are no right or wrong answers and it is okay for you to stop if you want to. Do you have any questions? Do you want to play?"

The adult script was as follows:

> "Hello, for today's study, we are going to show you a video and then we are going to ask you how you feel after viewing the video. Please pay close attention to the video and how it makes you feel. In between viewing videos, you will perform an unrelated task using these spinners,

in which you will be asked to make decisions involving a choice between taking a sure option (point to the red spinner) and taking a gamble (point to the red and blue spinner). You won't actually be spinning the spinners, and you will not actually be winning or losing real money, but please pretend as if you were actually about to spin the spinner and win or lose real money. There is no right or wrong answer. You can stop your participation in the procedure at any time, and if you need me to repeat a question just let me know. Do you have any questions?"

After consent or assent was obtained from the participant, they were then asked "Can you point to the face that looks most like how you feel right now?" Participants were to respond on a 9-point smiley-face scale adapted from Barnett (1984) to indicate their mood (Appendix A). The mood scale ranged from +4 to -4 with 0 being the neutral point on the scale. This provides the baseline measure of their mood. After reporting their baseline mood, participants were shown the emotion manipulation video played using Windows Media Player and viewed while wearing headphones. Each participant saw only one video during the experimental session: positive, negative, or neutral. After viewing the video, participants were asked, "After having viewed that video, can you point to the face that looks most like how the pictures made you feel?" Participants again responded using the nine point smiley face scale. After reporting their mood, participants were then given a block of the choice trials, either 9 gain trials or 9 loss trials. Within each block, each of 9 trials was presented in random order. For the gain frame, participants were offered a choice between winning a certain amount of money and a gamble which offered the chance to win more money or win

nothing. Following is an example of a trial in the gain frame with ½ risk level and a low reward magnitude:

> "You have a choice. If you pick this side, you win $5 for sure. If you pick this side, you take a chance. If the spinner were to land on red, you win $10, but if the spinner lands on blue, you win nothing. What do you want to do? Win $5 for sure (*experimenter points to the sure spinner*), or take a chance and maybe win $10, maybe win nothing (*experimenter points to the gamble spinner*)?"

For the loss frame, each participant was given an endowment and asked to choose between losing a certain amount of money and taking a chance and maybe losing no money or losing everything. Following is the example of a loss trial with ½ risk level and low reward magnitude (italics indicates action taken by the experimenter):

> "I am going to give you $10 *(experimenter places $10 in front of the participant)*. You have a choice. If you pick this side, you lose $5 for sure *(experimenter physically removes the $5, leaving $5 in front of the participant).* If you pick this side *(physically replaces the $10 in front of the participant)*, you take a chance. If the spinner lands on blue, you lose $10 *(experimenter physically removes the $10).* If the spinner lands on red, you give me back nothing *(experimenter places $10 on red part of spinner)*. What do you want to do? Lose $5 dollars for sure (*pointing*), or take a chance and maybe lose $10, maybe lose nothing (*pointing*)?" (Appendix B)

After each of the 9 choices was made and recorded by the researcher, the participant was asked to indicate their confidence in their choice (i.e., the sequence was choose, give confidence, then choose on the next trial, give

confidence for that trial, and so on). Choice was recorded using a 7-point smiley face scale, with 1 being a neutral face and 7 being the most extreme smiling face (Appendix A). Participants were told that if they were highly confident in their choice, meaning that they would never change their choice if given the option, they should indicate 7, If they were not confident at all in their choice, meaning that there was a good chance they would change their choice if given the chance, they should indicate a confidence of 1.

After the block of trials was presented and choice and confidence were recorded, each participant watched the same video that was seen earlier. After viewing the video, participants were asked to again indicate their mood on the 9-point smiley face scale. This was followed by presentation of the remaining 9 choice trials, followed by the participant's confidence ratings of their choice. After the remaining 9 choice trials, each participant was administered the Youth Life Orientation Test (YLOT) (Ey, et. al, 2005). This scale is an adaptation of the Life Orientation Test (LOT) first developed by Sheier, Carver, and Bridges (1994) to measure dispositional optimism and pessimism. The YLOT was developed for use with young children and retains good psychometric properties; for example, the Cronbach's alpha was .75 (Ey et. al, 2005). The questionnaire consisted of 6 items assessing optimism and 6 items assessing pessimism along with 2 filler items (see Table 2.1 and 2.2). Each of 14 items was presented in random order. To respond, participants were given a 5-point scale ranging from strongly disagree to strongly agree, with faces nodding 'yes' (corresponding to strongly agree) and 'no' (strongly disagree). This format was developed by the researchers in order to make the optimism scale more accessible to young children.

Statistical Analysis

Analysis and data management were performed using SPSS, version 16 (SPSS Inc, Chicago, IL). There are three basic analysis performed for the data. First, a manipulation check was run to examine whether the videos affected the participants' reported mood. A mean mood rating score was calculated by adding the two mood ratings given after viewing the video and dividing by 2 to give an average for mood rating. A 2 (Order) X 3 (Induction Condition) X 3 (Age Group) analysis of variance was performed with the between-subject variables of order, (loss first, gain first), induction condition (positive, negative, or neutral) and age group (child, adolescent, adult) as the independent variables and the mean mood rating as the dependent variable. For the second manipulation check, a new variable was calculated, mood shift, by subtracting the mean mood rating from the baseline mood rating. This was done to examine whether the video significantly shifted the participant's mood in the direction of the valence of the video (i.e., reporting their mood as more negative if they viewed the negative video). The second group of analyses examines the choice and confidence data. Two mixed model analyses of variance were performed on the choice data. The first model included three within-subject variables (frame, risk, and magnitude) and three between-subject variables (order, age group, mood induction). This analysis was performed on the choice data which included the same variables except mood induction was replaced by a variable called mood valence. For mood valence, participants were categorized into new groups using the mean mood rating variable. This was done because, although watching the video did significantly shift the mood in the desired direction, many participants reported such high levels of positive mood at baseline, several participants in the negative

condition still retained a positive valence in their reported mood. Using the mean mood rating, participants were categorized as negative if their mean mood rating was < 0 (n = 30), neutral if their mean mood rating was = 0 (n = 21), and positive if their mean mood rating was > 0 (n = 56). For the confidence ratings, a new variable, signed confidence was created by recoding their confidence ratings as either negative or positive depending on the participant's choice of the gamble or the sure option. For each trial, if the sure option was chosen, the confidence rating was left as recorded. However, if the gamble was chosen, each confidence rating was recoded by multiplying the recorded value by -1. This created a new variable, signed confidence rating, with a range for each rating of -7 to +7. This was used as the dependent variable in two mixed model analyses of variance. The same analysis applied to the choice data was done for signed confidence.

The final group of analyses examined the relationship between optimism, the tendency to choose the gamble, and the tendency to show framing effects. The tendency to choose the gamble was calculated by adding the number of times the participants chose the gamble. The tendency to show framing effects were calculated by adding up the total numbers of times the gamble was chosen in the gain frame (gamble score gain) and in the loss frame (gamble score loss). Framing Score was calculated by subtracting gamble score gain from gamble score loss. Positive values for the framing score indicate a standard framing pattern (risk seeking for losses and risk aversion for gains) whereas negative scores indicate a reverse framing pattern. Finally, in order to separate valence from arousal, absolute values for mean mood ratings were used to indicate strength of arousal.

CHAPTER 3

RESULTS

Manipulation Check

In order to check if the mood manipulation actually had an effect on the participants' reported mood, two three-way analyses of variance were performed on the mood ratings. A variable was created called mean mood rating by adding up the two times self reported mood was reported after each viewing and dividing by 2 to calculate an average for the two mood ratings. A 2 (Order) X 3 (Induction Condition) X 3 (Age Group) analysis of variance was run with mean mood rating as the dependent variable.

An overall main effect for age group was found for mean mood ratings, $F(2, 89) = 3.82$, $p < .03$, $\eta_p^2 = .08$. Children reported higher mood ($M = 1.52$, $SD = 2.1$) than either adolescents ($M = .81$, $SD = 1.63$), or adults ($M = .77$, $SD = 1.75$).

A main effect was also found for the mood induction, $F(2, 89) = 59.42$, $p < .001$, $\eta_p^2 = .57$. Participants in the positive condition ($M = 2.36$, $SD = 1.16$) were significantly higher in their reported mood than participants in the neutral condition ($M = 1.55$, $SD = 1.54$). Further, participants in the negative condition ($M = -0.8$, $SD = .98$) reported significantly lower mood than participants in either the positive or neutral condition.

The main effect for mood induction condition was qualified by a two-way interaction with order, $F(2, 89) = 3.58$, $p = .03$, $\eta_p^2 = .07$. For the negative condition, an increase in reported mood was found when gains were presented first ($M = -.64$, $SD = 1.16$) compared to when losses were presented first ($M = -.96$, SD = .71). For the neutral condition, a decrease in reported mood was found when gains were presented first ($M = 1.09$, $SD = 1.38$)

compared to when losses were presented first (*M* = 2.01, SD = 1.64). For the positive condition, an increase in reported mood was found when gains were presented first (*M* = 2.64, *SD* = 1.03) compared to when losses were presented first (*M* = 2.07, SD = 1.32) (figure 1.3). This interaction retained the same pattern as the main effect for mood condition, with only variations in magnitude and therefore does not affect the interpretation of the main effect.

In order to rule out the idea that differences in mean mood ratings were due to group differences for the induction condition (e.g., participants in the positive condition were just more positive to begin with than the other groups) a new variable was created by subtracting the baseline mood reported from the mean mood rating, giving a measure that examines the valence and magnitude of the shift in reported mood that occurred after viewing the video. A 2 (Order) X 3 (Induction Condition) X 3 (Age Group) analysis of variance was run with mood shift as the dependent variable.

A main effect was found for mood induction, $F(2, 89) = 61.24$, $p < .001$, $\eta_p^2 = .58$. Participants in the positive condition (*M* = .35, *SD* = 1.18) had a significant positive shift in their mood rating when compared to the neutral condition (*M* = .35, *SD* = .97). Also, participants in the negative condition (*M* = .35, *SD* = 1.33) had a significant negative shift in their mood ratings when compared to either the positive or neutral conditions.

Taken together, the results of the mood manipulation checks provide evidence that the participants' mood was significantly shifted in the expected direction for each of the mood induction groups.

Choice Behavior

Choice behavior was analyzed using a 2 (Order) X 2 (Frame) X 3 (Risk) X 3 (Reward) X 3 (Mood Induction) X 3 (Age Group) mixed model analysis of variance. Frame, Risk, and Reward were within-subject factors while Order, Mood Induction and Age Group were between-subject factors. Frame contained two levels; each choice was presented as either a gain or a loss. Risk was operationally defined as the three levels of the bad outcome for the gamble option, .5, .67, and .75. Reward magnitude was defined as the three levels of outcome: small, intermediate, and large. Mood induction was defined as the valence of the video; negative, neutral, and positive. The three age groups were young children, adolescents, and adults.

For the analysis, Mauchly's test indicated that the assumption of sphericity had been violated for risk ($\chi^2(2) = 10.14$, $p = .006$), reward ($\chi^2(2) = 8.42$, $p = .015$), and the risk by reward interaction ($\chi^2(9) = 19.26$, $p = .02$), therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity.

A main effect of age group was found, $F(2, 89) = 8.09$, $p < .001$, $\eta_p^2 = .15$. Young children ($M = .72$, $SD = .46$) chose the gamble significantly more than either adolescents ($M = .54$, $SD = .51$) or adults ($M = .55$, $SD = .54$). No reliable difference was found between adolescents and adults.

A main effect for frame was found, $F(1, 89) = 3.99$, $p = .05$, $\eta_p^2 = .04$. Overall, a standard framing effect was found, with participants preferring the gamble more often when options were presented as losses ($M = .63$, SD = .44) than when they were presented as gains ($M = .58$, $SD = .5$).

A main effect was also found for risk, $F(1.8, 160.53) = 12.61$, $p < .001$, $\eta_p^2 = .12$. Participants preferred the gamble more often when the risk was .5

(*M* = .68, *SD* =.26) than either .67 (*M* = .6, *SD* = .26) or .75 (*M* = .54, *SD* =.28). Post-hoc tests reveal that each mean was significantly different.

A main effect of reward magnitude was also found, *F(*1.83, 163.13) = 18.58, *p* < .001, η_p^2 = .17. Participants preferred the gamble more often when the reward magnitude was low (*M* = .69, *SD* =.26) than either the intermediate (*M* = .6, *SD* = .28) or high (*M* = .52, *SD* =.27) reward magnitudes. Post-hoc analysis reveals that each level was significantly different from each other level.

The main effect of reward magnitude was qualified by a reward magnitude by age group interaction, *F(*3.66,163.13) = 14.11, *p* < .001, η_p^2 = .24. Children preferred the gamble at each level of reward magnitude, low (*M* = .68, *SD* =.45), intermediate (*M* = .72, *SD* =.53), and high (*M* = .76, *SD* =.48). Adolescents showed a non-monotonic trend across reward magnitude, low (*M* = .65, *SD* =.45), intermediate (*M* = .51, *SD* = .51), and high (*M* = .76, *SD* =.48). Adults, however, showed a decreasing monotonic trend, choosing the gamble less at the each level of increasing reward magnitude, low (*M* = .76, *SD* =.38), intermediate (*M* = .57, *SD* =.45), and high (*M* = .33, *SD* = .41).

The reward magnitude was also found to interact with order, *F(*1.83,163.13) = 3.2, *p* = *.05*, η_p^2 = .04. When the gain block was presented first, participants chose the gamble most at the low (*M* = .66, *SD* =.33), followed by the intermediate (*M* = .58, *SD* =.38), and high (*M* = .55, *SD* =.34). When the loss block was presented first, participants chose the gamble most at the low (*M* = .74, *SD* =.35), followed by the intermediate (*M* = .62, *SD* =.42), and high (*M* = .49, *SD* =.38). The significant interaction did not alter the trend for the main effect found for reward, but seemed to attenuate the effect when gains were presented first.

Order was also found to interact with mood induction, *F(*2,89) = 4.07, *p* = *.02*, η_p^2 = .08. When the gain block was presented first, participants chose the gamble most in the positive induction (*M* = .69, *SD* =.45), followed by the negative (*M* = .52, *SD* =.46), and neutral (*M* = .58, *SD* =.46) induction conditions, which were roughly similar. When the loss block was presented first, participants chose the gamble most in the neutral (*M* = .69, *SD* =.48) induction condition, followed by the positive (*M* = .58, *SD* =.55), and negative (*M* = .58, *SD* =.49) induction conditions.

The reward magnitude by order interaction was further qualified by a three-way interaction with mood induction, *F(*3.66,163.13) = 3.11, *p* = *.02*, η_p^2 = .06. When the gain block was presented first, for the negative induction, participants chose the gamble most at the low (*M* = .64, *SD* =.55), followed by the high (*M* = .6, *SD* =.59), and the intermediate (*M* = .5, *SD* =.66) reward magnitudes. For the neutral induction, participants chose the gamble most at the low (*M* = .56, *SD* =.57), followed by the high (*M* = .52, *SD* =.61), and the intermediate (*M* = .49, *SD* =.67) reward magnitudes. For the positive induction, participants chose the gamble most at the low (*M* = .77, *SD* =.54), followed by the intermediate (*M* = .76, *SD* =.64), and the high (*M* = .54, *SD* =.58) reward magnitudes. When the loss block was presented first, for the negative induction, participants chose the gamble most at the intermediate (*M* = .64, *SD* =.07 and low (*M* = .64, *SD* =.6), followed by the high (*M* = .46, *SD* =.64) reward magnitudes. For the neutral induction, participants chose the gamble most at the low (*M* = .79, *SD* =.57), followed by the intermediate (*M* = .71, *SD* =.68), and the high (*M* = .57, *SD* =.61) reward magnitudes. For the positive induction, participants chose the gamble most at the low (*M* = .8, *SD* =.66), followed by the intermediate (*M* = .51, *SD* =.79), and the high (*M* = .45, *SD*

=.71) reward magnitudes.

A three-way interaction among frame, risk, and mood induction was also found, *F(*3.97,176.60) = 3.37, *p* = *.01*, η_p^2 = .07. For participants in the negative induction condition, for the gain frame, participants chose the gamble most at the .75 (*M* = .6, *SD* =.56) and .5 (*M* = .59, *SD* =.49) risk levels, followed by the .67 (*M* = .56, *SD* =.53) risk levels. For the loss frame, participants chose the gamble most at the .5 (*M* = .72, *SD* =.48) followed by the .67 (*M* = .54, *SD* =.5) and the .75 (*M* = .46, *SD* =.57) risk levels. For the neutral induction, for the gain frame, participants chose the gamble most at the .5 (*M* = .61, *SD* =.49), followed by the .67 (*M* = .55, *SD* =.53), and the .75 (*M* = .5, *SD* =.56) risk levels. For the loss frame, participants chose the gamble most at the .5 (*M* = .67, *SD* =.48) and the .67 (*M* = .67, *SD* =.49), followed by the .75 (*M* = .64, *SD* =.57) risk levels. For the positive induction, for the gain frame, participants chose the gamble most at the .5 (*M* = .71, *SD* =.52), followed by the .67 (*M* = .64, *SD* =.56), and the .75 (*M* = .49, *SD* =.59) risk levels. For the loss frame, participants chose the gamble most at the .5 (*M* = .78, *SD* =.51) and the .67 (*M* = .64, *SD* =.53), followed by the .75 (*M* = .56, *SD* =.6) risk levels.

A significant three-way interaction was found among risk, reward, and mood induction, *F(*7.31, 325.55) = 2.87, *p* = *.02*, η_p^2 = .05. For the negative condition, at the .5 level of risk, participants gambled most at the low (*M* = .71, *SD* = .54) level of reward, followed by the intermediate (*M* = .63, *SD* = .63) then the high (*M* = .62, *SD* = .61) level of reward magnitude. At the .67 level of risk, participants gambled most at the low (*M* = .62, *SD* = .56) level of reward, followed by the intermediate (*M* = .54, *SD* = .61) then the high (*M* = .49, *SD* = .62) level of reward magnitude. At the .75 level of risk, participants gambled

most at the low (*M* = .58, *SD* = .61) level of reward, followed by the intermediate (*M* = .53, *SD* = .65) then the high (*M* = .48, *SD* = .58) level of reward magnitude. For the neutral condition, at the .5 level of risk, participants gambled most at the low (*M* = .78, *SD* = .54) level of reward, followed by the intermediate (*M* = .63, *SD* = .62) then the high (*M* = .51, *SD* = .6) level of reward magnitude. At the .67 level of risk, participants gambled most at the intermediate (*M* = .67, *SD* = .61) level of reward, followed by the high (*M* = .59, *SD* = .62) then the low (*M* = .55, *SD* = .56) level of reward magnitude. At the .75 level of risk, participants gambled most at the low (*M* = .68, *SD* = .6) level of reward, followed by the high (*M* = .52, *SD* = .57) then the intermediate (*M* = .5, *SD* = .65) level of reward magnitude. For the positive condition, at the .5 level of risk, participants gambled most at the low (*M* = .88, *SD* = .57) level of reward, followed by the intermediate (*M* = .76, *SD* = .67) then the high (*M* = .6, *SD* = .64) level of reward magnitude. At the .67 level of risk, participants gambled most at the high (*M* = .81, *SD* = .6) level of reward, followed by the intermediate (*M* = .58, *SD* = .65) then the low (*M* = .53, *SD* = .66) level of reward magnitude. At the .75 level of risk, participants gambled most at the low (*M* = .67, *SD* = .6) level of reward, followed by the intermediate (*M* = .56, *SD* = .69) then the high (*M* = .35, *SD* = .61) level of reward magnitude.

A second analysis was run on the choice data replacing mood induction with a new variable called mood valence. Participants were categorized based on the valence of their reported mean mood. Participants reporting negative values were categorized as negative (n = 30), participants reporting 0 (indicated by neutral on the mood face scale) were categorized as neutral (n = 21), and participants reporting positive values were categorized as positive (n = 56). Choice behavior was analyzed using a 2 (Order) X 2 (Frame)

X 3 (Risk) X 3 (Reward) X 3 (Mood Valence) X 3 (Age Group) mixed model analysis of variance.

For the analysis, Mauchly's test indicated that the assumption of sphericity had been violated for risk ($\chi^2(2) = 10.53$, $p = .005$), reward ($\chi^2(2) = 7.42$, $p = .02$), and the risk by reward interaction ($\chi^2(9) = 20.89$, $p = .01$), therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity.

A main effect of age group was found, $F(2, 89) = 3.09$, $p = .05$, $\eta_p^2 = .06$. Young children ($M = .68$, $SD = .49$) chose the gamble significantly more than either adolescent s($M = .54$, $SD = .38$) or adults ($M = .55$, $SD = .42$). No reliable difference was found between adolescents and adults.

A main effect was also found for risk, $F(1.85, 164.68) = 5.9$, $p = .005$, $\eta_p^2 = .06$. Participants preferred the gamble more often when the risk was .5 ($M = .66$, $SD = .3$) than either .67 ($M = .57$, $SD = .29$) or .75 ($M = .54$, $SD = .36$). No reliable difference was found between the .67 or .75 risk levels.

A main effect of reward magnitude was also found, $F(1.85, 164.68) = 15.71$, $p < .001$, $\eta_p^2 = .15$. Participants preferred the gamble more often when the reward magnitude was low ($M = .69$, $SD = .3$) than either the intermediate ($M = .59$, $SD = .36$) or high ($M = .49$, $SD = .29$) reward magnitudes. Post-hoc tests revealed that each level was significantly different from each other level.

The main effect of reward magnitude was qualified by a reward. magnitude by age group interaction, $F(3.7,164.68) = 10.5$, $p < .001$, $\eta_p^2 = .19$. Children chose the gamble increasingly at each level of reward magnitude, low ($M = .64$, $SD = .6$), intermediate ($M = .69$, $SD = .7$), and high ($M = .73$, $SD = .58$). Adolescents showed a decreasing monotonic trend at each level of reward magnitude, low ($M = .64$, $SD = .46$), intermediate ($M = .53$, $SD = .55$),

and high (*M* = .46, *SD* =.45). Adults showed the same decreasing monotonic trend as adolescents, choosing the gamble less at the each level of increasing reward magnitude, low (*M* = .79, *SD* =.51), intermediate (*M* = .55, *SD* =.61), and high (*M* = .31, *SD* = .5).

Reward magnitude was also found to interact with order, *F(*1.85,164.68) = 3.94, *p* = *.02*, η_p^2 = .04. When the gain block was presented first, participants chose the gamble most at the low (*M* = .66, *SD* =.4), followed by the intermediate (*M* = .53, *SD* =.47), and high (*M* = .54, *SD* =.39). When the loss block was presented first, participants chose the gamble most at the low (*M* = .72, *SD* =.46), followed by the intermediate (*M* = .64, *SD* =.55), and high (*M* = .45, *SD* =.45). The significant interaction did not alter the trend for the main effect found for reward, but seemed to attenuate the effect when gains were presented first.

The reward magnitude by order interaction was qualified by a three-way interaction with mood valence, *F(*3.7,164.68) = 2.89, *p* = *.03*, η_p^2 = .06. When the gain block was presented first, for the negative induction, participants chose the gamble most at the high (*M* = .62, *SD* =.68), followed by the low (*M* = .57, *SD* =.7), and the intermediate (*M* = .45, *SD* =.83) reward magnitudes. For the neutral induction, participants chose the gamble most at the low (*M* = .76, *SD* =.85), followed by the intermediate (*M* = .5, *SD* = .61), and the intermediate (*M* = .46, *SD* =.82) reward magnitudes. For the positive induction, participants chose the gamble most at the low (*M* = .67, *SD* =.46), followed by the intermediate (*M* = .65, *SD* =.55), and the high (*M* = .53, *SD* =.45) reward magnitudes. When the loss block was presented first, for the negative induction, participants chose the gamble most at the intermediate (*M* = .66, *SD* =.7) and low (*M* = .64, *SD* =.9), followed by the high (*M* = .36, *SD* =.64) reward

magnitudes. For the neutral induction, participants chose the gamble most at the low (*M* = .72, *SD* =.85), followed by the intermediate (*M* = .65, *SD* =.68), and the high (*M* = .49, *SD* =.82) reward magnitudes. For the positive induction, participants chose the gamble most at the low (*M* = .8, *SD* =.51), followed by the intermediate (*M* = .61, *SD* =.6), and the high (*M* = .52, *SD* =.49) reward magnitudes.

Reward magnitude and order was also found to interact with age group, *F(*3.7,164.68) = 3.23, *p* = *.02*, η_p^2 = .06. When the gain block was presented first, young children chose the gamble most at the high (*M* = .88, *SD* =.64), followed by the low (*M* = .59, *SD* =.66), and the intermediate (*M* = .59, *SD* =.79) reward magnitudes. Adolescents chose the gamble most at the low (*M* = .65, *SD* =.68), followed by the intermediate (*M* = .54, *SD* = .81), and the high (*M* = .47, *SD* =.66) reward magnitudes. Adults chose the gamble most at the low (*M* = .76, *SD* =.72), followed by the intermediate (*M* = .47, *SD* =.85), and the high (*M* = .26, *SD* =.7) reward magnitudes. When the loss block was presented first, young children chose the gamble most at the intermediate (*M* = .78, *SD* =.64), followed by the low (*M* = .69, *SD* =.66), and the high (*M* = .57, *SD* =.96) reward magnitudes. Adolescents chose the gamble most at the low (*M* = .64, *SD* =.63), followed by the intermediate (*M* = .52, *SD* = .74), and the high (*M* = .44, *SD* =.6) reward magnitudes. Adults chose the gamble most at the low (*M* = .82, *SD* =.73), followed by the intermediate (*M* = .63, *SD* =.86), and the high (*M* = .35, *SD* =.7) reward magnitudes.

A three-way interaction among frame, risk, and mood valence was also found, *F(*3.96,176.26) = 2.12, *p* = *.02*, η_p^2 = .09. For participants in the negative valence condition, for the gain frame, participants chose the gamble most at the .75 (*M* = .62, *SD* =.81) and .5 (*M* = .56, *SD* =.75), followed by the

.67 (*M* = .54, *SD* =.75) risk levels. For the loss frame, participants chose the gamble most at the .5 (*M* = .66, *SD* =.68) followed by the .67 (*M* = .49, *SD* =.68) and the .75 (*M* = .42, *SD* =.81) risk levels. For the neutral valence, for the gain frame, participants chose the gamble most at the .5 (*M* = .61, *SD* =.68), followed by the .67 (*M* = .51, *SD* =.76), and the .75 (*M* = .5, *SD* =.82) risk levels. For the loss frame, participants chose the gamble most at the .5 (*M* = .7, *SD* =.68) and the .67 (*M* = .65, *SD* =.68), followed by the .75 (*M* = .62, *SD* =.81) risk levels. For the positive induction, for the gain frame, participants chose the gamble most at the .5 (*M* = .67, *SD* =.39), followed by the .67 (*M* = .63, *SD* =.43), and the .75 (*M* = .51, *SD* =.47) risk levels. For the loss frame, participants chose the gamble most at the .5 (*M* = .73, *SD* =.39) and the .67 (*M* = .64, *SD* =.39), followed by the .75 (*M* = .6, *SD* =.47) risk levels.

A five-way interaction among frame, risk, order, age group, and mood valence was found, $F(7.92,176.26) = 3.09$, $p = .05$, $\eta_p^2 = .06$ (see Appendix for all non-significant effects). The predicted frame by age group interaction was found to be marginally significant, $F(2,164.68) = 2.76$, $p = .06$, $\eta_p^2 = .06$. Children chose the gamble more often for the gain frame (*M* = .7, *SD* = .57) than the loss frame (*M* = .67, *SD* = .56). Adolescents chose the gamble consistently across gain (*M* = .53, *SD* = .44) and loss (*M* = .53, *SD* = .43) frames. Adults showed the standard framing pattern, choosing the gamble more for the loss (*M* = .61, *SD* = .48) than gain (*M* = .48, *SD* = .49) frame.

Signed Confidence

Signed confidence was created by recoding the participant's confidence ratings of their choice as either negative or positive depending on the participant's choice of the gamble or the sure option. If the sure option was chosen, the confidence rating remained positive. If the gamble was chosen,

each confidence rating was recoded by multiplying the recorded value by -1. This created a new variable, signed confidence rating, with a range for each rating of -7 to +7.

Signed Confidence was analyzed using a 2 (Frame) X 3 (Risk) X 3 (Reward) X 2 (Order) 3 (Mood Induction) X 3 (Age Group) mixed model analysis of variance. Frame, Risk, and Reward were within-subject variables while Mood Induction and Age Group were between-subject variables. Frame contained two levels; each choice was presented as either a gain or a loss. Risk was operationally defined as the three levels of the bad outcome of the gamble option, .5, .67, and .75. Reward magnitude was defined as the three levels of outcome; small, intermediate, and large. Mood induction was defined as the three induction groups; negative, neutral, and positive. For the study, there were three age groups; young children, adolescents, and adults.

For the analysis, Mauchly's test indicated that the assumption of sphericity had been violated for risk ($\chi^2(2) = 8.93$, $p = .01$), reward ($\chi^2(2) = 8.99$, $p = .01$), the risk by reward interaction ($\chi^2(9) = 17.29$, $p = .04$), and the frame by risk by reward interaction ($\chi^2(2) = 22.76$, $p < .001$); therefore degrees of freedom were corrected using Greenhouse-Geisser estimates.

A main effect of age group was found, $F(2, 89) = 17.13$, $p < .001$, $\eta_p^2 = .28$. Young children ($M = -2.93$, $SD = .4$) reported significantly lower signed confidence (greatest preference for the gamble) than either adolescents ($M = .14$, $SD = .39$) or adults ($M = -.36$, $SD = .35$). No reliable difference was found between adolescents and adults.

A main effect for frame was found, $F(1, 89) = 7.14$, $p < .001$, $\eta_p^2 = .07$. Overall, participants reported lower signed confidence ratings for the loss ($M = -1.39$, SD = .25) than the gain ($M = -.71$, $SD = .26$) frame.

A main effect was also found for risk, *F(*1.82, 162.23) = 16.32, *p* < .001, η_p^2 = .16 . Participants reported the lowest signed confidence ratings (greatest preference for the gamble) at the .5 (*M* = -1.96, *SD* =.26) risk level which was significantly different than either the .67 (*M* = -.81, *SD* = .26) or .75 (*M* = -.37, *SD* =.29) risk level.

A main effect of reward magnitude was also found, *F(*1.82, 162.23) = 20.57, *p* < .001, η_p^2 = .19. Participants had the lowest signed confidence ratings at the low (*M* = -2.02, *SD* =.25) level, which was significantly different from both the intermediate (*M* = -.92, *SD* = .29) and high (*M* = -.22, *SD* =.29) reward magnitudes. Post-hoc analysis revealed that each level was significantly different from each other level.

The main effect of reward magnitude was qualified by a reward magnitude by age group interaction, *F(*3.65,162.23) = 14.72, *p* < .001, η_p^2 = .25. Children had the lowest signed confidence ratings (greatest preference for the gamble) at the high (*M* = -3.32, *SD* =.52) followed by the intermediate (*M* = -2.89, *SD* =.53), and low (*M* = -2.58, *SD* =.45) levels of reward magnitude. Adolescents showed an increasing monotonic trend at each level of reward magnitude, low (*M* = -.93, *SD* =.45), intermediate (*M* = .54, *SD* = .51), and high (*M* = .81, *SD* =.51). Adults showed the same increasing (i.e., scores increased but preference for the gamble decreased) monotonic trend as adolescents, preferring the gamble less at the each level of increasing reward magnitude, low (*M* = -2.55, *SD* =.39), intermediate (*M* = -.39, *SD* =.45), and high (*M* = .1.86, *SD* = .45).

Reward magnitude was also found to interact with order, *F(*3.49,162.23) = 3.49, *p* = *.04*, η_p^2 = .05. When the gain block was presented first, participants reported the lowest ratings at the low (*M* = -1.68, *SD* =.34), followed by the

intermediate (*M* = -.86, *SD* =.38), and high (*M* = -.62, *SD* =.38) reward levels. When the loss block was presented first, participants also reported the lowest ratings at the low (*M* = -2.36, *SD* =.37), followed by the intermediate (*M* = -.97, *SD* =.43), and high (*M* = .18, *SD* =.42) reward levels, but the differences were larger. The significant interaction did not alter the trend for the main effect found for reward, but seemed to attenuate the effect when gains were presented first.

Frame was found to interact with reward magnitude, *F(*1.93,162.23) = 3.46, *p = .04*, η_p^2 = .04. For the gain frame, participants reported the lowest signed ratings when reward magnitude was low (*M* = -1.28*, SD =.34*) followed by the intermediate (*M* = -.66*, SD =.37*) and the high (*M* = -.19*, SD =.35*) reward levels. For the loss frame, participants reported the lowest signed ratings when reward magnitude was low (*M* = -2.76*, SD =.3*) followed by the intermediate (*M* = -1.17*, SD =.35*) and the high (*M* = -.24*, SD =.34*) reward magnitudes.

Order was also found to interact with mood induction, *F(*2,89) = 5.34, *p = .006*, η_p^2 = .11. When the gain block was presented first, participants reported the lowest ratings for the positive induction (*M* = -2.03, *SD* =.51), followed by the negative (*M* = -1.03, *SD* =.51), and neutral (*M* = -.11, *SD* =.53) induction conditions. When the loss block was presented first, participants chose the gamble most in the neutral (*M* = -2.03, *SD* =.53) induction condition, followed by the negative (*M* = -.64, *SD* =.55), and positive (*M* = -.47, *SD* =.62) induction conditions.

The reward magnitude by order interaction was qualified by a three-way interaction with mood induction, *F(*3.65,162.23) = 2.88, *p = .03*, η_p^2 = .06. When the gain block was presented first, for the negative induction,

participants reported the lowest ratings for the low (*M* = -1.78, *SD* = .58), followed by the high (*M* = -1.21, *SD* =.67), and the intermediate (*M* = -.11, *SD* =.67) reward magnitudes. For the neutral induction, participants reported the lowest ratings at the low (*M* = -.57, *SD* =.59), followed by the high (*M* = .2, *SD* = .68), and the intermediate (*M* = .06, *SD* =.69) reward magnitudes. For the positive induction, participants reported the lowest ratings at the low (*M* = -2.7, *SD* =.57), followed by the intermediate (*M* = -2.54, *SD* =.66), and the high (*M* = -.85, *SD* =.65) reward magnitudes. When the loss block was presented first, for the negative induction, participants reported the lowest ratings at the low (*M* = -1.38, *SD* =.62) followed by the intermediate (*M* = -1.1, *SD* =.72), followed by the high (*M* = .55, *SD* =.71) reward magnitudes. For the neutral induction, participants reported the lowest ratings at the low (*M* = -3.01, *SD* =.6), followed by the intermediate (*M* = -2.17, *SD* =.69), and the high (*M* = -.9, *SD* =.69) reward magnitudes. For the positive induction, participants reported the lowest ratings at the low (*M* = -2.68, *SD* =.7), followed by the intermediate (*M* = .37, *SD* =.81) and the high (*M* = .91, *SD* =.8) reward magnitudes.

A three-way interaction among frame, risk, and mood induction was also found, *F(*3.92,162.23) = 2.7, *p* = *.03*, η_p^2 = 0.06. For participants in the negative induction condition, for the gain frame, participants reported the lowest ratings at the .5 (*M* = -.85, *SD* =.57) and .75 (*M* = -.83, *SD* =.59), followed by the .67 (*M* = -33, *SD* =.58) risk level. For the loss frame, participants reported the lowest ratings at the .5 (*M* = -2.39, *SD* =.52) followed by the .67 (*M* = -.54, *SD* =.51) and the .75 (*M* = -.05, *SD* =.57) risk levels. For the neutral valence, for the gain frame, participants preferred the gamble most at the .5 (*M* = -1.3, *SD* =.57), followed by the .67 (*M* = -.04, *SD* =.57), and the .75 (*M* = -.05, *SD* =.58) risk levels. For the loss frame, participants reported

the lowest ratings at the .5 (*M* = -2.1, *SD* =.52) followed by the .67 (*M* = -1.75, *SD* =.51), followed by the .75 (*M* = -1.16, *SD* =.56) risk levels. For the positive induction, for the gain frame, participants preferred the gamble most at the .5 (*M* = -2.33, *SD* =.6), followed by the .67 (*M* = -.92, *SD* =.61), and the .75 (*M* = .27, *SD* =.62) risk levels. For the loss frame, participants chose the gamble most at the .5 (*M* = -2.78, *SD* =.55) followed by the .67 (*M* = -1.3, *SD* =.61), followed by the .75 (*M* = -.43, *SD* =.6) risk levels.

A significant three-way interaction was found among risk, reward, and mood induction, *F(*7.42, 330.26) = 2.33, *p* = *.02*, η_p^2 = .05. For the negative condition, at the .5 level of risk, participants reported the lowest ratings at the low (*M* = -2.25, *SD* = .6) level of reward, followed by the high (*M* = -1.34, *SD* = .64) then the intermediate (*M* = -1.28, *SD* = .66) level of reward magnitude. At the .67 level of risk, participants reported the lowest ratings at the low (*M* = -1.27, *SD* = .54) level of reward, followed by the intermediate (*M* = -.22, *SD* = .62) then the high (*M* = .17, *SD* = .64) level of reward magnitude. At the .75 level of risk, participants reported the lowest rating at the low (*M* = -1.2, *SD* = .6) level of reward, followed by the intermediate (*M* = -.31, *SD* = .63) then the high (*M* = .19, *SD* = .6) level of reward magnitude. For the neutral condition, at the .5 level of risk, participants reported the lowest ratings at the low (*M* = -3.18, *SD* = .6) level of reward, followed by the intermediate (*M* = -1.61, *SD* = .65) then the high (*M* = -.31, *SD* = .64) level of reward magnitude. At the .67 level of risk, participants reported the lowest ratings at the intermediate (*M* = -1.52, *SD* = .61) level of reward, followed by the high (*M* =-.62, *SD* = .63) then the low (*M* = -.54, *SD* = .54) level of reward magnitude. At the .75 level of risk, participants reported the lowest ratings at the low (*M* = -1.65, *SD* = .6) level of reward, followed by the high (*M* = -.13, *SD* = .6) then the intermediate (*M* = -

.04, *SD* = .63) level of reward magnitude. For the positive condition, at the .5 level of risk, participants reported the lowest ratings at the low (*M* = -3.94, *SD* = .64) level of reward, followed by the intermediate (*M* = -2.51, *SD* = .69) then the high (*M* = -1.22, *SD* = .68) level of reward magnitude. At the .67 level of risk, participants reported the lowest ratings at the low (*M* = -2.72, *SD* = .57) level of reward, followed by the intermediate (*M* = -.45, *SD* = .65) then the high (*M* = -.16, *SD* = .68) level of reward magnitude. At the .75 level of risk, participants reported the lowest ratings at the low (*M* = -1.42, *SD* = .63) level of reward, followed by the intermediate (*M* = -.31, *SD* = .67) then the high (*M* = 1.48, *SD* = .64) level of reward magnitude.

A five-way interaction among frame, risk, order, age group, and mood valence was found, *F(*7.92,176.26) = 3.09, *p* = *.05*, η_p^2 = .06 (see Appendix for all non-significant effects). The predicted frame by age group interaction was found to be marginally significant, *F(*2,164.68) = 2.76, *p* = *.06*, η_p^2 = .06. Children chose the gamble more often for the gain frame (*M* = .7, *SD* = .57) than the loss frame (*M* = .67, *SD* = .56). Adolescents chose the gamble consistently across gain (*M* = .53, *SD* = .44) and loss (*M* = .53, *SD* = .43) frames. Adults showed the standard framing pattern, choosing the gamble more for the loss (*M* = .61, *SD* = .48) than gain (*M* = .48, *SD* = .49) frame.

In addition, a four way interaction among frame, order, age group, and mood induction was significant, *F(*4, 89) = 3.37, *p* = *.01*, η_p^2 = .13. Finally, a significant five-way interaction among risk, reward, order, age group, and mood induction was found to be significant, *F(*14.84, 330.26) = 2.44, *p* = *.002*, η_p^2 = .10. The predicted frame by age group interaction was not significant, *F(*2,89) = .15, *p* = .86, η_p^2 = .003 (see Appendix for all means and non-significant results).

Optimism/Pessimism

Table 5. Correlation matrix

	Age	Gamble Gain	Gamble Loss	Gamble Total	Framing	Total Optimism	Mean Mood	Valence	Arousal
Age	1	-.3**	-.26*	-.33**	.05	-.15	-.18	-.21*	-.09
Gamble Gain		1	.52**	.87**	-.5**	.08	.09	.1	.12
Gamble Loss			1	.87**	.48**	.16	.18	.17	.11
Gamble Total				1	-.2	.14	.15	.15	.13
Framing					1	.09	.09	.07	-.02
Optimism						1	.03	-.01	.003
Mood							1	.89**	.7**
Valence								1	.53**
Arousal									1

** - significant at the .01 level

* - significant at the .05 level

Bivariate correlations were used to examine the relationship between optimism, pessimism, risky choice, and the tendency to frame. Optimism and pessimism scores were calculated from responses to items from the YLOT (Ey, 2005). Tables 2.1 and 2.2 contain item statistics and scale properties. The YLOT consists of 6 items that assess optimism and 6 items that assess

pessimism. Each item was scored on a 5-point scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5) These items were added together to give a total optimism and a total pessimism score. A total optimism score was calculated by adding together the optimism items with the reverse scored pessimism items.

Risky choice was defined as choosing the gamble. For each frame, a gamble score was calculated by adding together the number of times the gamble was chosen. A gamble score of 9 indicates choosing the gamble every time and a score of 0 indicates choosing the sure option every time. Framing score was calculated by subtracting the gamble score for the gain frame from the gamble score for the loss frame. Positive values indicate a standard framing pattern, risk aversion for gains and risk seeking for losses while negative values indicate a reverse framing pattern. Finally, arousal and valence were separated using responses on the smiley-face mood scale. Valence was created by coding the mean mood into negative, neutral, and positive valence based on whether the participants’ mean mood was negative (-), neutral (0), or positive (+). Arousal was created by coding mean mood into absolute values of the reported mood. For instance, +1 and -1 would both be coded as 1. Arousal ranged from 0 to 4.

The pattern of correlations revealed few significant correlations. Optimism and pessimism significantly correlated with each other but did not correlate with any other measure, r*(107) = -.61, p <.01*. Of interest, gamble score gain and gamble score loss were significiantly correlated with each other, indicating that the tendency to choose the gamble was correlated across both frames, *(107) = -.52, p <.01*.

CHAPTER 4

DISCUSSION

In order to interpret the results effectively, a detailed examination of the task is warranted. For each option, participants were to choose between a sure option and a gamble. There are several key points that must be made. First, for each option, expected value was kept constant across options. Therefore, for each individual choice, participants never chose between options with higher and lower expected values. Expected value did vary however with respect to reward magnitude, but the sure and gamble options were the same (i.e., both options were of equal expected value). Within each level of reward magnitude, expected value remained constant across probability, done so by increasing the magnitude of the positive option as risk level increased. Second, with respect to the individual objective values within each level of reward magnitude, the value for the sure option was always a value lower than the positive value in the gamble. For example a *sure* option of winning $5 versus a *gamble* option of winning $10.

In order to keep expected values constant, the gamble option always inlcuded the possibility of a 'bad' option, and in the gains case 'bad' means no net gain in worth. Across gain and loss, though probabilities and net gains remained constant within each reward magnitude, the 0 component of the options changed in meaning. For the gain frame, 0 is attached to the negative outcome (winning 0) and for the loss frame, the 0 component is attached to the positive outcome (losing 0). It is important to note that risk (as defined by the probabilities) and reward were factorially combined (as in Figner, Mackinlay, Wilkening, & Weber, 2009). Therefore, one result supporting an expected value process underlying a decision for this task would be to find a

risk X reward interaction. However, though main effects for risk and reward were found, no interaction between the two was found for our sample. Indeed, risk was not found to interact with any other variable. Therefore, explaining the results with expected value could not be accurate.

For children, fuzzy-trace theory argues that children engage more often in verbatim-based analytic processes that favor consistency across frames. The data are consistent with this interpretation. Children were found to more consistently prefer the gamble relative to adults, found in both choice analyses as well as the signed confidence analysis. In addition, for all analyses, young children were found to increasinglyly choose the gamble as magnitude increased. Children, it seems, made comparisons between objective magnitudes of rewards in the two options. The interpretation of this result is that children are making at least an ordinal and possibly even an interval (choice of the gamble increases as the interval between the sure option and the gamble increases) comparison of the rewards. Given that the higher value was always presented with the gamble, comparison from this perspective favors choice of the gamble. Because children showed a preference for the outcome with the higher magnitude (the gamble) their choices seem to be more influenced by processing of the external environment, because it is the objective magnitude, i.e., it is in the environment. For adults, patterns of choice were not influenced by this quantitative detail; instead their choices were more reflective of how the information was changed (reduced). This change in information processing, it is posited, is brought about by experience, again reflected and captured in the internal state of the person. The question then becomes what develops and causes the pattern of choice to change into adulthood?

As discussed previously, fuzzy-trace theory's explanation of the standard framing pattern is that in the gain frame, decision makers are reducing the option to winning something (sure option) versus winning nothing (the gamble), favoring the sure option. For the loss frame, decision makers reduce the options to losing something (sure option) versus losing nothing (the gamble), favoring the gamble; these assumptions predict standard framing as observed in adults (Reyna & Brainerd, 1991, 1995; Reyna & Ellis, 1994). For adults, a decreasing monotonic trend was seen for reward magnitude, too. For our sample, the age by frame interaction predicted by fuzzy-trace theory was found to be marginally significant ($p = .06$). The pattern of this result is consistent with fuzzy-trace theory in that adults were the only age group that showed a standard framing pattern (.48 for gain frame, .61 for loss frame). Young children showed reverse framing and adolescents were consistent across frames. A consistent age by reward magnitude effect also emerged throughout our analyses. Essentially, the tendency to choose the gamble less as the magnitude of the sure option increased was a pattern of choice found only for adolescents and adults. Children's choices showed the opposite trend across changes in magnitude. Fuzzy-trace theory argues that gist and verbatim representations of experience are encoded in parallel and are independent. When making a choice, decision makers can use either gist (not influenced by quantitative details) or verbatim (influenced by such details) representations. The decrease in choices of the gamble as magnitude differences increased favoring the gamble is further evdience of gist-based processing in adults. Children's opposite trend, favoring larger outcomes in the gamble, is consistent with fuzzy-trace theory's developmental prediction, which is that younger subjects would be more verbatim processors.

Given that the overall trend is decreasing for adolescents and adults, one might ask what remains constant across levels of magnitude of reward? Across magnitude, the bad outcome remains constant (probability of winning 0 in the gain frame, and losing everything in the loss frame), so basing choice on the invariant aspect of the gamble (across magnitudes) does not make sense. Looking at the other components in each decision, for the other aspect of the gamble, values increase as reward magnitudes increase. The same thing occurs for the sure option. However, the gamble always retains the higher value; thus, comparing the options would favor the gamble as reward magnitude increases. Therefore, the only other option left is that they are evaluating each option separately. Of the two options, a downward monotonic trend in choice of the gamble could occur if 1) participants began to favor the sure option as it increased, or 2) participants grew averse to the gamble as reward magnitude increased. Of the two, only explanation 1 makes sense. Adults begin to prefer the safe option (the sure option) as reward magnitude increased. In order to explain the results fully from this perspective, a discussion of loss avoidance is warranted.

In invoking loss avoidance in any way, it is important to keep in mind, what is the decision maker avoiding? Evidence shows that even young children can exhibit loss avoidance (Levin & Hart, 2003, 2007; Reyna, 1996). However these tasks were reflection effects, where the net values, though equal in magnitude, were not equal with respect to net gain. These studies basically argue that even young children make more risky choices to avoid a loss than to achieve a gain of equal magnitude (loss aversion). Our task was a framing task, where net gains were equivalent across frames. Given that one explanation for the findings presented here is that mature decision makers

evaluate only the sure option, it is possible to incorporate loss avoidance by positing that the sure or 'safe' option is examined with respect to loss. If participants view the sure option as safe because it is the decision makers for certain if they choose that option, than it is possible to argue that if they take a chance and lose, they lose the sure option. With respect to magnitude, this "loss" becomes larger and larger as the magnitude increases, hence decreasing the probability that the decision-maker "take a chance." Decision makers are avoiding a future state of the world in which they lose the sure option. For the loss frame, loss is inherent in the decision, i.e., the sure option is presented and experienced as a loss. Therefore, the increase in choosing the gamble is due to the increased tendency to view the sure option as a loss, thereby becoming an option to avoid. For this case, the sure option becomes an immediate and experienced loss, and hence taking a chance avoids this loss. Again, this can only occur if the only evaluation adult participants engaged in is evaluating the sure option.

It is acknowledged that the latter explanation offered here, namely, the reduction of options to evaluation of a single option, though consistent with the data, is speculative. It is also important to note that though previous explanations of framing from a fuzzy-trace theory perspective offer a different explanation (see discussion above) than the single option evaluation explanation offered here, both are instantiations of the fuzzy-trace principle of reduction of representations to simpler representations. Further, both are consistent with the tenet that this tendency to reduce options develops with age and experience. What is needed is a design that will distinguish the two explanations. What is required is a paradigm that can tease out whether choices of the sure option occur because 1) decision makers are avoiding the

gamble (or the sure option in the loss frame), or 2) the appeal of the sure option (or the gamble for the loss frame) increases enough to invoke a preference for that option (the same logic can be applied to choices of the gamble). In a sense, the question becomes, are decision makers avoiding the gamble or approaching the sure option, or are choices a combination of the two (Lejuez et al., 2003)?

With respect to emotion, there is some evidence that our hypothesis was supported. When examining the three-way interaction among frame, risk, and mood induction (found for all three analyses), participants in both positive and neutral moods showed a standard framing pattern. In contrast, participants in the negative mood condition showed a pattern of reverse framing as the risk increased. This indicates that negative mood may be related to verbatim processing (responsible for reverse framing). Positive and neutral mood were not distinguished from each other, though this could be due to the fact that our positive mood induction was not a strong induction procedure or, as is common, subjects tend to be in a positive mood (so the neutral condition resembles the positive one).

It has often been argued that in tasks similar to the one used, where a choice is offered between a sure option and a gamble, young children prefer the gamble not because they are engaging in any kind of cognitive process but instead prefer the gamble because they prefer to play a game, an "entertainment bias." However, in this version of the task, both the sure and gamble option used spinners (not just the gamble). Given that the higher dollar amount always coincided with the gamble option, however, makes it difficult to fully explain away this possible explanation. There is evidence that this is the case for children. Looking at figure 2.5, a pattern of increasing

choice of the gamble was found for children (from .58 at the lowest magnitude to .82 in the highest magnitude) in the gain frame. This pattern is not a necessary result of an “entertainment bias,” but is, however, a necessary result of a magnitude comparison of the outcome of the two options. The higher outcome always occurred in the gamble option. Therefore, an ordinal (and interval) comparison of the two options would always favor the gamble, the pattern of choice shown by children. Further, an “entertainment bias” could not explain the shift in preferences for gains and losses, the standard framing pattern, seen in adults, and therefore an alternative explanation has to be invoked for adults choosing of the gamble.

A limitation of the study is with respect to manipulating mood. For our study, it is clear that valence was manipulated, but, arousal was not controlled. Therefore, it is not clear whether mood influenced our study due to valence, or that our mood induction videos differed in arousal. Further, even though each mood manipulation shifted the reported mood state of the participant in the desired direction, many participants still reported an overall positive state, even after viewing the negative stimuli. Because of this, all participants were categorized by their mean mood ratings into a new variable reflecting the valence of their actual reported mood, and not the video they saw. In doing this, the cells became greatly uneven, with most participants falling in the positive valence category. Running more subjects would increase the power of our study and perhaps make the effects of mood on our task clearer.

Further, the study did not attempt to distinguish valence from arousal. Although it is clear from the data that in terms of self-reported mood, valence clearly shifted in the desired direction, it is possible that arousal was not affected at all, or affected differently across the different videos. Several

studies have shown that valence and arousal have different effects on cognition (Lerner & Keltner, 2000; Brainerd et al, 2009). Future studies should take care to distinguish these two constructs. Several researchers emphasize that within each valence, different emotions could elicit different choices (Lerner & Keltner, 2005). A final criticism of the study is that the less powerful cross-sectional design was used instead of a longitudinal design. Future studies can implement a longitudinal design to overcome this disadvantage.

There were several advantages of this study over previous studies. One is that all levels of frame, risk, and magnitude were factorially combined, hence could be collapsed to examine main effects. This has an advantage over studies using paradigms such as the Iowa Gambling Task which does not allow for examining main effects of reward magnitude or risk level. Another advantage of this study is that the same task was administered across three age groups. Many adolescent researchers are quick to point out that for many domains, adolescents take more risks. In particular, neuroscientists have argued that this increase in risk taking is due to a change in brain structures that process risk and reward. Some have argued that a preference for risk taking increases in adolescence due to pubertal changes in brain morphology, and others argue that the adolescent brain is more sensitive to reward magnitudes (Casey & Galvan, 2007; Steinberg, 2007; 2008). These studies however, have not taken into account that the domains in which these arguments are made (smoking, unprotected sex, drug use, driving behavior) are domains familiar to the adolescent and not amenable to comparisons with young children (who are unfamiliar with them). In other words, children's risk taking encompasses different activities which are not comparable across age groups. Therefore, studies taking the approach ascribed here, the same task

given to children, adolescents, and adults, are important for understanding what exactly changes from childhood to adolescence to adulthood.

The Development of Cognition

As discussed in the introduction, development can be characterized as a changing relationship between the external environment and the internal environment of the organism. Extending from this framework is the hypothesis that an essential part of this link is sensory processing. New ideas describing the link between the processing of our senses and the formation of our cognitions have been the object of growing interest. These ideas, known as embodied cognition, suggest that cognition is closely tied to underlying neural circuitry that analyzes and processes sensory information (Wilson, 2002). Many other studies have provided evidence supporting this perspective. For instance, research has found that when people are reading a book, areas of the brain associated with the activity being read about (e.g., grasping an object, running) become active and this difference is detected in the contralateral nature of the brain (Speers, Reynold, Swallows & Zacks, 2009). Taking a developmental perspective on decision making, one can examine the involvement of sensory and perceptual processing on choice tasks. For instance, how would choice change if one were to vary the physical salience of the outcomes? For instance, if one were to alter the size of the spinners, yet keep the proportion constant, one could hypothesize that this advantage in visual processing would translate into preference for the accentuated option. Again, because children are more influenced by the external environment as presented in the associative framework earlier, one would expect this result to be facilitated in children. Some anecdotal evidence exists in the data obtained for this study that would support this notion. Several children, when asked why

they chose how they did, indicated that the chosen spinner just looked "bigger."

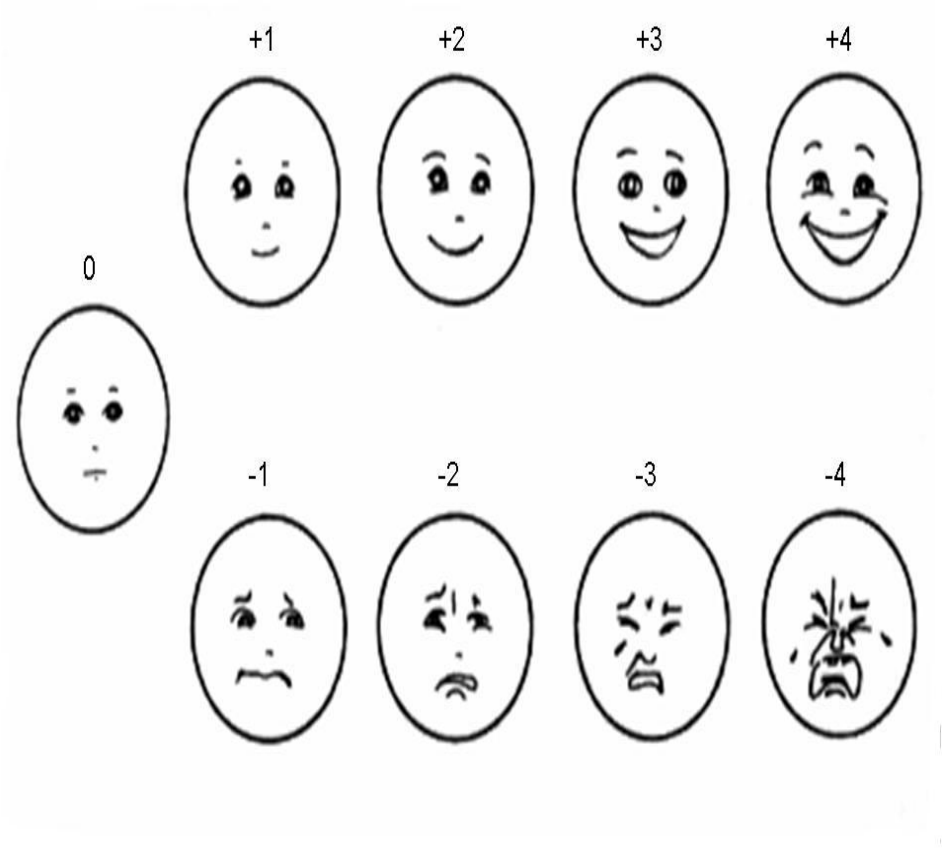
Conclusion

In sum, the importance of this study is that the same choice task was administered to children, adolescents, and adults. This allowed a comparison of choices among these age groups and an examination of the influence of increasing risk, reward, frame, and emotional state to be done, without confounds present in reports of real-life behavior. Overall, the results were consistent with fuzzy-trace theory's explanation of framing as a product of gist-based processing. Further, results are consistent with fuzzy-trace theory's's argument that children's choices tend to reflect a more verbatim-based analytic process. This further supports fuzzy-trace theory's developmental prediction that gist-based processing increases with age in that standard framing effects, itself a product of gist-based processing, was found to increase with age. Note that, as a dual process theory, fuzzy-trace theory does not predict that only gist-based processing increases with age (Reyna & Brainerd, 1994, 1995). Both verbatim analysis (computation) and gist-based processing increase developmentally, but gist increasingly becomes the default processing mode in reasoning and decision making. Mood was found to bias processing in the hypothesized direction, with negative mood related to verbatim-based processing and neutral (and positive) mood related to gist-based processing. Mood may interact with the use of gist in risky decision making, but perhaps only when the options themselves are the source of the emotion (not mood; Rivers et al., 2008). Future research on emotion and decision making should examine effects of emotional content.

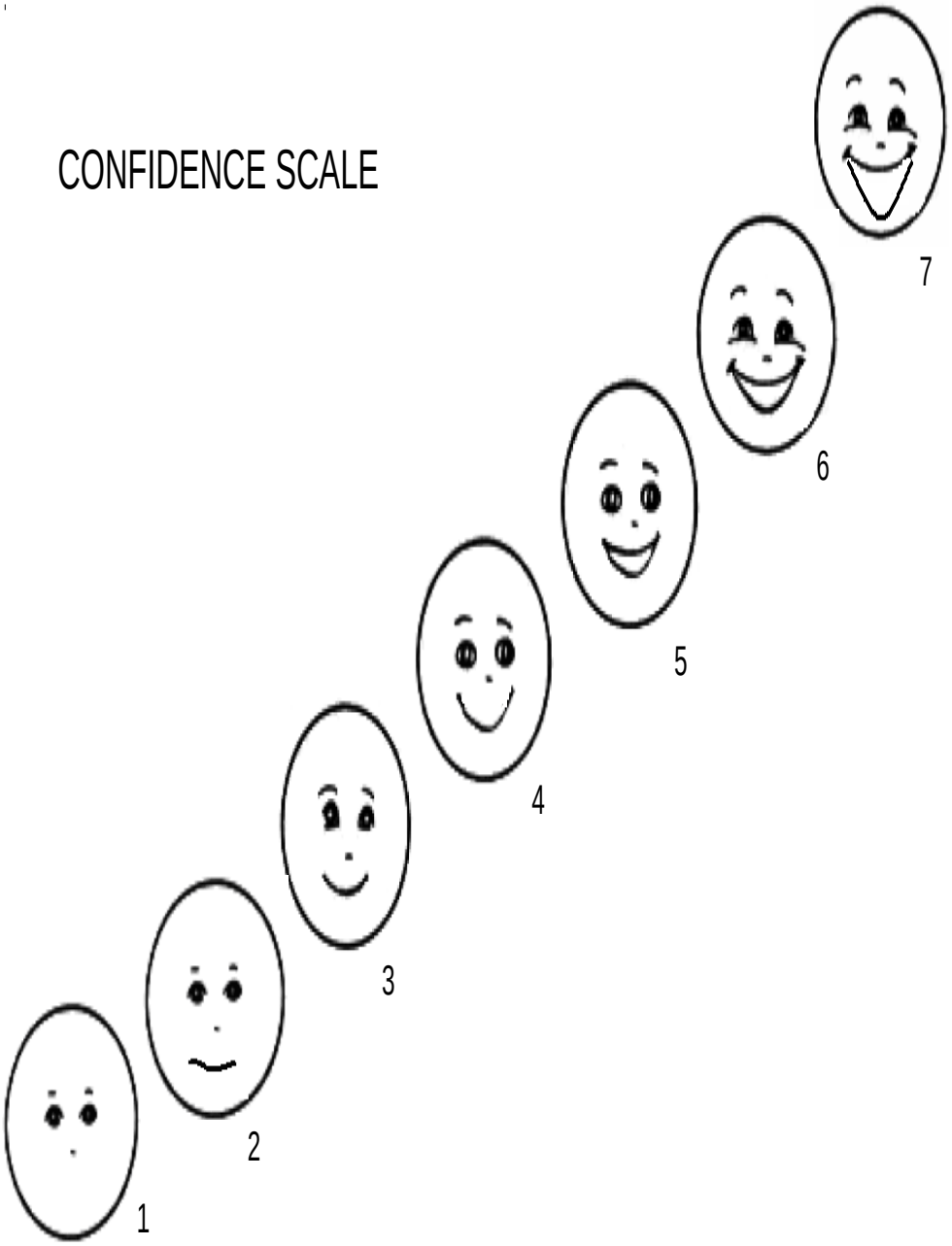
APPENDIX A

Smiley Face Scales

Mood Rating Scale



CONFIDENCE SCALE



APPENDIX B

Instructions for Choice task

Frame Order: _____ Condition: _____ Experimenter Initials #:_____

Participant #:_____ Participant's Birthdate:_____

Participant's Gender (M/F):_____

GAIN FRAME: Pretend you have a chance to win money.
Remember to show videos before 1 and after 4

Order	Choice	Confidence	Script
			You have a choice. If you pick this side, you win $5 for sure. If you pick this side, you take a chance. If the spinner were to land on red, you win $10, but if the spinner lands on blue, you win nothing. What do you want to do? Win $5 for sure, or take a chance and maybe win $10, maybe win nothing? (1/2)
			You have a choice. If you pick this side, you win $20 for sure. If you pick this side, you take a chance. If the spinner were to land on red, you win $40, if the spinner lands on blue, you win nothing. What do you want to do? Win $20 for sure, or take a chance and maybe win $40, maybe win nothing? (1/2)
			You have a choice. If you pick this side, you win $150 for sure. If you pick this side, you take a chance. If the spinner were to land on red, you win $300, if the spinner lands on blue, you win nothing. What do you want to do? Win $150 for sure, or take a chance and maybe win $300, maybe win nothing? (1/2)
			You have a choice. If you pick this side, you win $5 for sure. If you pick this side, you take a chance. If the spinner were to land on red, you win $15, if the spinner lands on blue, you win nothing. What do you want to do? Win $5 for sure, or take a chance and maybe win $15,

			maybe win nothing? (1/3)
			You have a choice. If you pick this side, you win $20 for sure. If you pick this side, you take a chance. If the spinner were to land on red, you win $60, if the spinner lands on blue, you win nothing. What do you want to do? Win $20 for sure, or take a chance and maybe win $60, maybe win nothing? (1/3)
			You have a choice. If you pick this side, you win $150 for sure. If you pick this side, you take a chance. If the spinner were to land on red, you win $450, if the spinner lands on blue, you win nothing. What do you want to do? Win $150 for sure, or take a chance and maybe win $450, maybe win nothing? (1/3)
			You have a choice. If you pick this side, you win $5 for sure. If you pick this side, you take a chance. If the spinner were to land on red, you win $20, if the spinner lands on blue, you win nothing. What do you want to do? Win $5 for sure, or take a chance and maybe win $20, maybe win nothing? (1/4)
			You have a choice. If you pick this side, you win $20 for sure. If you pick this side, you take a chance. If the spinner were to land on red, you win $80, if the spinner lands on blue, you win nothing. What do you want to do? Win $20 for sure, or take a chance and maybe win $80, maybe win nothing? (1/4)
			You have a choice. If you pick this side, you win $150 for sure. If you pick this side, you take a chance. If the spinner were to land on red, you win $600, if the spinner lands on blue, you win nothing. What do you want to do? Win $150 for sure, or take a chance and maybe win $600, maybe win nothing? (1/4)

Debrief (Only at the end of the experiment, not after first frame):
1. What was going through your mind as you made the decisions?

2. Did you notice any difference between the times when you were winning $ versus the times you were losing $?
LOSS FRAME: Pretend you have a chance to win money.
Remember to show videos before 1 and after 4

Order	Choice	Confidence	Script
			I am going to give you $10. You have a choice. If you pick this side, you lose $5 for sure. If you pick this side, you take a chance. If the spinner lands on blue, you lose $10. If the spinner lands on red, you give me back nothing. What do you want to do? Lose $5 dollars for sure, or take a chance and maybe lose $10, maybe lose nothing? (1/2)
			I am going to give you $40. You have a choice. If you pick this side, you lose $20 for sure. If you pick this side, you take a chance. If the spinner lands on blue, you lose $40. If the spinner lands on red, you lose nothing. What do you want to do? Lose $20 dollars for sure, or take a chance and maybe lose $40, maybe lose nothing? (1/2)
			I am going to give you $300. You have a choice. If you pick this side, you lose $150 for sure. If you pick this side, you take a chance. If the spinner lands on blue, you lose $300. If the spinner lands on red, you lose nothing. What do you want to do? Lose $150 dollars for sure, or take a chance and maybe lose $300, maybe lose nothing? (1/2)
			I am going to give you $15. You have a choice. If you pick this side, you lose $10 for sure. If you pick this side, you take a chance. If the spinner lands on blue, you lose $15. If the spinner lands on red, you lose nothing. What do you want to do? Lose $10 dollars for sure, or take a chance and maybe lose $15, maybe lose nothing? (1/3)
			I am going to give you $60. You have a choice. If you pick this side, you lose $40 for sure. If you pick this side, you take a chance. If the spinner lands on blue, you lose $60. If the spinner lands on red, you lose nothing. What do you want to do? Lose $40 dollars for sure, or

			take a chance and maybe lose $60, maybe lose nothing? (1/3)
			I am going to give you $450. You have a choice. If you pick this side, you lose $300 for sure. If you pick this side, you take a chance. If the spinner lands on blue, you lose $450. If the spinner lands on red, you lose nothing. What do you want to do? Lose $300 dollars for sure, or take a chance and maybe lose $450, maybe lose nothing? (1/3)
			I am going to give you $20. You have a choice. If you pick this side, you lose $15 for sure. If you pick this side, you take a chance. If the spinner lands on blue, you lose $20. If the spinner lands on red, you lose nothing. What do you want to do? Lose $15 dollars for sure, or take a chance and maybe lose $20, maybe lose nothing? (1/4)
			I am going to give you $80. You have a choice. If you pick this side, you lose $60 for sure. If you pick this side, you take a chance. If the spinner lands on blue, you lose $80. If the spinner lands on red, you lose nothing. What do you want to do? Lose $60 dollars for sure, or take a chance and maybe lose $80, maybe lose nothing? (1/4)
			I am going to give you $600. You have a choice. If you pick this side, you lose $450 for sure. If you pick this side, you take a chance. If the spinner lands on blue, you lose $600. If the spinner lands on red, you lose nothing. What do you want to do? Lose $450 dollars for sure, or take a chance and maybe lose $600, maybe lose nothing? (1/4)

Debrief (Only at the end of the experiment, not after first frame):
1. What was going through your mind as you made the decisions?

2. Did you notice any difference between the times when you were winning $ versus the times you were losing $?

APPENDIX C

Descriptives and Summary Tables for Choice by Induction Analysis

Descriptive Statistics

	Order	Age_Group	Condition	Mean	Std. Deviation	N
G(1/2)5	Gain First	Child	Neutral	.6667	.51640	6
			Positive	.8000	.44721	5
			Negative	.7143	.48795	7
			Total	.7222	.46089	18
		Adolescent	Neutral	.6000	.54772	5
			Positive	.8571	.37796	7
			Negative	.4000	.54772	5
			Total	.6471	.49259	17
		Adult	Neutral	.8571	.37796	7
			Positive	.7500	.46291	8
			Negative	.7143	.48795	7
			Total	.7727	.42893	22
		Total	Neutral	.7222	.46089	18
			Positive	.8000	.41039	20
			Negative	.6316	.49559	19
			Total	.7193	.45334	57
	Loss First	Child	Neutral	.7500	.50000	4
			Positive	.8000	.44721	5
			Negative	.7500	.50000	4
			Total	.7692	.43853	13
		Adolescent	Neutral	.6250	.51755	8
			Positive	.6667	.57735	3
			Negative	.7143	.48795	7
			Total	.6667	.48507	18
		Adult	Neutral	.7143	.48795	7

			Positive	1.0000	.00000	6
			Negative	.6667	.51640	6
			Total	.7895	.41885	19
		Total	Neutral	.6842	.47757	19
			Positive	.8571	.36314	14
			Negative	.7059	.46967	17
			Total	.7400	.44309	50
	Total	Child	Neutral	.7000	.48305	10
			Positive	.8000	.42164	10
			Negative	.7273	.46710	11
			Total	.7419	.44480	31
		Adolescent	Neutral	.6154	.50637	13
			Positive	.8000	.42164	10
			Negative	.5833	.51493	12
			Total	.6571	.48159	35
		Adult	Neutral	.7857	.42582	14
			Positive	.8571	.36314	14
			Negative	.6923	.48038	13
			Total	.7805	.41906	41
		Total	Neutral	.7027	.46337	37
			Positive	.8235	.38695	34
			Negative	.6667	.47809	36
			Total	.7290	.44658	107
G(1/2)20	Gain First	Child	Neutral	.3333	.51640	6
			Positive	1.0000	.00000	5
			Negative	.5714	.53452	7
			Total	.6111	.50163	18
		Adolescent	Neutral	.6000	.54772	5
			Positive	1.0000	.00000	7
			Negative	.4000	.54772	5

			Total	.7059	.46967	17
		Adult	Neutral	.5714	.53452	7
			Positive	.7500	.46291	8
			Negative	.5714	.53452	7
			Total	.6364	.49237	22
		Total	Neutral	.5000	.51450	18
			Positive	.9000	.30779	20
			Negative	.5263	.51299	19
			Total	.6491	.48149	57
	Loss First	Child	Neutral	.7500	.50000	4
			Positive	1.0000	.00000	5
			Negative	.7500	.50000	4
			Total	.8462	.37553	13
		Adolescent	Neutral	.7500	.46291	8
			Positive	.6667	.57735	3
			Negative	.4286	.53452	7
			Total	.6111	.50163	18
		Adult	Neutral	.4286	.53452	7
			Positive	.3333	.51640	6
			Negative	.5000	.54772	6
			Total	.4211	.50726	19
		Total	Neutral	.6316	.49559	19
			Positive	.6429	.49725	14
			Negative	.5294	.51450	17
			Total	.6000	.49487	50
	Total	Child	Neutral	.5000	.52705	10
			Positive	1.0000	.00000	10
			Negative	.6364	.50452	11
			Total	.7097	.46141	31
		Adolescent	Neutral	.6923	.48038	13
			Positive	.9000	.31623	10

			Negative	.4167	.51493	12
			Total	.6571	.48159	35
		Adult	Neutral	.5000	.51887	14
			Positive	.5714	.51355	14
			Negative	.5385	.51887	13
			Total	.5366	.50485	41
		Total	Neutral	.5676	.50225	37
			Positive	.7941	.41043	34
			Negative	.5278	.50631	36
			Total	.6262	.48610	107
G(1/2)150	Gain First	Child	Neutral	.8333	.40825	6
			Positive	.8000	.44721	5
			Negative	.8571	.37796	7
			Total	.8333	.38348	18
		Adolescent	Neutral	.6000	.54772	5
			Positive	.5714	.53452	7
			Negative	.8000	.44721	5
			Total	.6471	.49259	17
		Adult	Neutral	.2857	.48795	7
			Positive	.3750	.51755	8
			Negative	.4286	.53452	7
			Total	.3636	.49237	22
		Total	Neutral	.5556	.51131	18
			Positive	.5500	.51042	20
			Negative	.6842	.47757	19
			Total	.5965	.49496	57
	Loss First	Child	Neutral	1.0000	.00000	4
			Positive	.6000	.54772	5
			Negative	.7500	.50000	4
			Total	.7692	.43853	13
		Adolescent	Neutral	.6250	.51755	8

			Positive	.3333	.57735	3
			Negative	.1429	.37796	7
			Total	.3889	.50163	18
		Adult	Neutral	.0000	.00000	7
			Positive	.5000	.54772	6
			Negative	.5000	.54772	6
			Total	.3158	.47757	19
		Total	Neutral	.4737	.51299	19
			Positive	.5000	.51887	14
			Negative	.4118	.50730	17
			Total	.4600	.50346	50
	Total	Child	Neutral	.9000	.31623	10
			Positive	.7000	.48305	10
			Negative	.8182	.40452	11
			Total	.8065	.40161	31
		Adolescent	Neutral	.6154	.50637	13
			Positive	.5000	.52705	10
			Negative	.4167	.51493	12
			Total	.5143	.50709	35
		Adult	Neutral	.1429	.36314	14
			Positive	.4286	.51355	14
			Negative	.4615	.51887	13
			Total	.3415	.48009	41
		Total	Neutral	.5135	.50671	37
			Positive	.5294	.50664	34
			Negative	.5556	.50395	36
			Total	.5327	.50128	107
G(1/3)5	Gain First	Child	Neutral	.0000	.00000	6
			Positive	.6000	.54772	5
			Negative	.7143	.48795	7
			Total	.4444	.51131	18

	Adolescent	Neutral	.2000	.44721	5
		Positive	1.0000	.00000	7
		Negative	.4000	.54772	5
		Total	.5882	.50730	17
	Adult	Neutral	.4286	.53452	7
		Positive	.6250	.51755	8
		Negative	.7143	.48795	7
		Total	.5909	.50324	22
	Total	Neutral	.2222	.42779	18
		Positive	.7500	.44426	20
		Negative	.6316	.49559	19
		Total	.5439	.50250	57
Loss First	Child	Neutral	1.0000	.00000	4
		Positive	.6000	.54772	5
		Negative	.2500	.50000	4
		Total	.6154	.50637	13
	Adolescent	Neutral	.6250	.51755	8
		Positive	1.0000	.00000	3
		Negative	.4286	.53452	7
		Total	.6111	.50163	18
	Adult	Neutral	.5714	.53452	7
		Positive	1.0000	.00000	6
		Negative	1.0000	.00000	6
		Total	.8421	.37463	19
	Total	Neutral	.6842	.47757	19
		Positive	.8571	.36314	14
		Negative	.5882	.50730	17
		Total	.7000	.46291	50
Total	Child	Neutral	.4000	.51640	10
		Positive	.6000	.51640	10
		Negative	.5455	.52223	11

			Total	.5161	.50800	31
		Adolescent	Neutral	.4615	.51887	13
			Positive	1.0000	.00000	10
			Negative	.4167	.51493	12
			Total	.6000	.49705	35
		Adult	Neutral	.5000	.51887	14
			Positive	.7857	.42582	14
			Negative	.8462	.37553	13
			Total	.7073	.46065	41
		Total	Neutral	.4595	.50523	37
			Positive	.7941	.41043	34
			Negative	.6111	.49441	36
			Total	.6168	.48845	107
G1320	Gain First	Child	Neutral	.3333	.51640	6
			Positive	.8000	.44721	5
			Negative	.5714	.53452	7
			Total	.5556	.51131	18
		Adolescent	Neutral	.6000	.54772	5
			Positive	.8571	.37796	7
			Negative	.2000	.44721	5
			Total	.5882	.50730	17
		Adult	Neutral	.4286	.53452	7
			Positive	.3750	.51755	8
			Negative	.7143	.48795	7
			Total	.5000	.51177	22
		Total	Neutral	.4444	.51131	18
			Positive	.6500	.48936	20
			Negative	.5263	.51299	19
			Total	.5439	.50250	57
	Loss First	Child	Neutral	1.0000	.00000	4
			Positive	.6000	.54772	5

			Negative	.5000	.57735	4
			Total	.6923	.48038	13
		Adolescent	Neutral	.8750	.35355	8
			Positive	.3333	.57735	3
			Negative	.2857	.48795	7
			Total	.5556	.51131	18
		Adult	Neutral	.5714	.53452	7
			Positive	.8333	.40825	6
			Negative	.8333	.40825	6
			Total	.7368	.45241	19
		Total	Neutral	.7895	.41885	19
			Positive	.6429	.49725	14
			Negative	.5294	.51450	17
			Total	.6600	.47852	50
	Total	Child	Neutral	.6000	.51640	10
			Positive	.7000	.48305	10
			Negative	.5455	.52223	11
			Total	.6129	.49514	31
		Adolescent	Neutral	.7692	.43853	13
			Positive	.7000	.48305	10
			Negative	.2500	.45227	12
			Total	.5714	.50210	35
		Adult	Neutral	.5000	.51887	14
			Positive	.5714	.51355	14
			Negative	.7692	.43853	13
			Total	.6098	.49386	41
		Total	Neutral	.6216	.49167	37
			Positive	.6471	.48507	34
			Negative	.5278	.50631	36
			Total	.5981	.49258	107
G(1/3)150	Gain First	Child	Neutral	.6667	.51640	6

		Positive	.8000	.44721	5
		Negative	1.0000	.00000	7
		Total	.8333	.38348	18
	Adolescent	Neutral	.6000	.54772	5
		Positive	.4286	.53452	7
		Negative	.8000	.44721	5
		Total	.5882	.50730	17
	Adult	Neutral	.0000	.00000	7
		Positive	.3750	.51755	8
		Negative	.2857	.48795	7
		Total	.2273	.42893	22
	Total	Neutral	.3889	.50163	18
		Positive	.5000	.51299	20
		Negative	.6842	.47757	19
		Total	.5263	.50375	57
Loss First	Child	Neutral	1.0000	.00000	4
		Positive	.6000	.54772	5
		Negative	.7500	.50000	4
		Total	.7692	.43853	13
	Adolescent	Neutral	.5000	.53452	8
		Positive	.3333	.57735	3
		Negative	.1429	.37796	7
		Total	.3333	.48507	18
	Adult	Neutral	.4286	.53452	7
		Positive	.3333	.51640	6
		Negative	.5000	.54772	6
		Total	.4211	.50726	19
	Total	Neutral	.5789	.50726	19
		Positive	.4286	.51355	14
		Negative	.4118	.50730	17
		Total	.4800	.50467	50

	Total	Child	Neutral	.8000	.42164	10
			Positive	.7000	.48305	10
			Negative	.9091	.30151	11
			Total	.8065	.40161	31
		Adolescent	Neutral	.5385	.51887	13
			Positive	.4000	.51640	10
			Negative	.4167	.51493	12
			Total	.4571	.50543	35
		Adult	Neutral	.2143	.42582	14
			Positive	.3571	.49725	14
			Negative	.3846	.50637	13
			Total	.3171	.47112	41
		Total	Neutral	.4865	.50671	37
			Positive	.4706	.50664	34
			Negative	.5556	.50395	36
			Total	.5047	.50233	107
G(1/4)5	Gain First	Child	Neutral	.1667	.40825	6
			Positive	.6000	.54772	5
			Negative	.5714	.53452	7
			Total	.4444	.51131	18
		Adolescent	Neutral	.0000	.00000	5
			Positive	.5714	.53452	7
			Negative	.8000	.44721	5
			Total	.4706	.51450	17
		Adult	Neutral	.7143	.48795	7
			Positive	.3750	.51755	8
			Negative	.5714	.53452	7
			Total	.5455	.50965	22
		Total	Neutral	.3333	.48507	18
			Positive	.5000	.51299	20
			Negative	.6316	.49559	19

		Total	.4912	.50437	57
Loss First	Child	Neutral	1.0000	.00000	4
		Positive	.6000	.54772	5
		Negative	.7500	.50000	4
		Total	.7692	.43853	13
	Adolescent	Neutral	.7500	.46291	8
		Positive	.6667	.57735	3
		Negative	.4286	.53452	7
		Total	.6111	.50163	18
	Adult	Neutral	.5714	.53452	7
		Positive	.6667	.51640	6
		Negative	.8333	.40825	6
		Total	.6842	.47757	19
	Total	Neutral	.7368	.45241	19
		Positive	.6429	.49725	14
		Negative	.6471	.49259	17
		Total	.6800	.47121	50
Total	Child	Neutral	.5000	.52705	10
		Positive	.6000	.51640	10
		Negative	.6364	.50452	11
		Total	.5806	.50161	31
	Adolescent	Neutral	.4615	.51887	13
		Positive	.6000	.51640	10
		Negative	.5833	.51493	12
		Total	.5429	.50543	35
	Adult	Neutral	.6429	.49725	14
		Positive	.5000	.51887	14
		Negative	.6923	.48038	13
		Total	.6098	.49386	41
	Total	Neutral	.5405	.50523	37
		Positive	.5588	.50399	34

			Negative	.6389	.48714	36
			Total	.5794	.49597	107
G(1/4)20	Gain First	Child	Neutral	.5000	.54772	6
			Positive	.8000	.44721	5
			Negative	.4286	.53452	7
			Total	.5556	.51131	18
		Adolescent	Neutral	.2000	.44721	5
			Positive	.5714	.53452	7
			Negative	.8000	.44721	5
			Total	.5294	.51450	17
		Adult	Neutral	.1429	.37796	7
			Positive	.5000	.53452	8
			Negative	.2857	.48795	7
			Total	.3182	.47673	22
		Total	Neutral	.2778	.46089	18
			Positive	.6000	.50262	20
			Negative	.4737	.51299	19
			Total	.4561	.50250	57
	Loss First	Child	Neutral	.7500	.50000	4
			Positive	.6000	.54772	5
			Negative	1.0000	.00000	4
			Total	.7692	.43853	13
		Adolescent	Neutral	.6250	.51755	8
			Positive	.0000	.00000	3
			Negative	.5714	.53452	7
			Total	.5000	.51450	18
		Adult	Neutral	.5714	.53452	7
			Positive	.5000	.54772	6
			Negative	.8333	.40825	6
			Total	.6316	.49559	19
		Total	Neutral	.6316	.49559	19

			Positive	.4286	.51355	14
			Negative	.7647	.43724	17
			Total	.6200	.49031	50
	Total	Child	Neutral	.6000	.51640	10
			Positive	.7000	.48305	10
			Negative	.6364	.50452	11
			Total	.6452	.48637	31
		Adolescent	Neutral	.4615	.51887	13
			Positive	.4000	.51640	10
			Negative	.6667	.49237	12
			Total	.5143	.50709	35
		Adult	Neutral	.3571	.49725	14
			Positive	.5000	.51887	14
			Negative	.5385	.51887	13
			Total	.4634	.50485	41
		Total	Neutral	.4595	.50523	37
			Positive	.5294	.50664	34
			Negative	.6111	.49441	36
			Total	.5327	.50128	107
G(1/4)150	Gain First	Child	Neutral	1.0000	.00000	6
			Positive	.8000	.44721	5
			Negative	.8571	.37796	7
			Total	.8889	.32338	18
		Adolescent	Neutral	.2000	.44721	5
			Positive	.4286	.53452	7
			Negative	.6000	.54772	5
			Total	.4118	.50730	17
		Adult	Neutral	.1429	.37796	7
			Positive	.2500	.46291	8
			Negative	.2857	.48795	7
			Total	.2273	.42893	22

	Total	Neutral	.4444	.51131	18
		Positive	.4500	.51042	20
		Negative	.5789	.50726	19
		Total	.4912	.50437	57
Loss First	Child	Neutral	.7500	.50000	4
		Positive	.4000	.54772	5
		Negative	.7500	.50000	4
		Total	.6154	.50637	13
	Adolescent	Neutral	.7500	.46291	8
		Positive	.0000	.00000	3
		Negative	.1429	.37796	7
		Total	.3889	.50163	18
	Adult	Neutral	.1429	.37796	7
		Positive	.5000	.54772	6
		Negative	.3333	.51640	6
		Total	.3158	.47757	19
	Total	Neutral	.5263	.51299	19
		Positive	.3571	.49725	14
		Negative	.3529	.49259	17
		Total	.4200	.49857	50
Total	Child	Neutral	.9000	.31623	10
		Positive	.6000	.51640	10
		Negative	.8182	.40452	11
		Total	.7742	.42502	31
	Adolescent	Neutral	.5385	.51887	13
		Positive	.3000	.48305	10
		Negative	.3333	.49237	12
		Total	.4000	.49705	35
	Adult	Neutral	.1429	.36314	14
		Positive	.3571	.49725	14
		Negative	.3077	.48038	13

			Total	.2683	.44857	41
		Total	Neutral	.4865	.50671	37
			Positive	.4118	.49955	34
			Negative	.4722	.50631	36
			Total	.4579	.50057	107
L(1/2)10	Gain First	Child	Neutral	.8333	.40825	6
			Positive	1.0000	.00000	5
			Negative	.4286	.53452	7
			Total	.7222	.46089	18
		Adolescent	Neutral	1.0000	.00000	5
			Positive	1.0000	.00000	7
			Negative	.6000	.54772	5
			Total	.8824	.33211	17
		Adult	Neutral	.7143	.48795	7
			Positive	.8750	.35355	8
			Negative	1.0000	.00000	7
			Total	.8636	.35125	22
		Total	Neutral	.8333	.38348	18
			Positive	.9500	.22361	20
			Negative	.6842	.47757	19
			Total	.8246	.38372	57
	Loss First	Child	Neutral	1.0000	.00000	4
			Positive	.8000	.44721	5
			Negative	1.0000	.00000	4
			Total	.9231	.27735	13
		Adolescent	Neutral	.7500	.46291	8
			Positive	1.0000	.00000	3
			Negative	.8571	.37796	7
			Total	.8333	.38348	18
		Adult	Neutral	.8571	.37796	7
			Positive	1.0000	.00000	6

			Negative	.6667	.51640	6
			Total	.8421	.37463	19
		Total	Neutral	.8421	.37463	19
			Positive	.9286	.26726	14
			Negative	.8235	.39295	17
			Total	.8600	.35051	50
	Total	Child	Neutral	.9000	.31623	10
			Positive	.9000	.31623	10
			Negative	.6364	.50452	11
			Total	.8065	.40161	31
		Adolescent	Neutral	.8462	.37553	13
			Positive	1.0000	.00000	10
			Negative	.7500	.45227	12
			Total	.8571	.35504	35
		Adult	Neutral	.7857	.42582	14
			Positive	.9286	.26726	14
			Negative	.8462	.37553	13
			Total	.8537	.35784	41
		Total	Neutral	.8378	.37368	37
			Positive	.9412	.23883	34
			Negative	.7500	.43916	36
			Total	.8411	.36728	107
L(1/2)40	Gain First	Child	Neutral	1.0000	.00000	6
			Positive	1.0000	.00000	5
			Negative	.4286	.53452	7
			Total	.7778	.42779	18
		Adolescent	Neutral	.6000	.54772	5
			Positive	.8571	.37796	7
			Negative	1.0000	.00000	5
			Total	.8235	.39295	17
		Adult	Neutral	.2857	.48795	7

		Positive	.7500	.46291	8
		Negative	.7143	.48795	7
		Total	.5909	.50324	22
	Total	Neutral	.6111	.50163	18
		Positive	.8500	.36635	20
		Negative	.6842	.47757	19
		Total	.7193	.45334	57
Loss First	Child	Neutral	.7500	.50000	4
		Positive	.8000	.44721	5
		Negative	1.0000	.00000	4
		Total	.8462	.37553	13
	Adolescent	Neutral	.7500	.46291	8
		Positive	.3333	.57735	3
		Negative	.5714	.53452	7
		Total	.6111	.50163	18
	Adult	Neutral	.7143	.48795	7
		Positive	.6667	.51640	6
		Negative	.6667	.51640	6
		Total	.6842	.47757	19
	Total	Neutral	.7368	.45241	19
		Positive	.6429	.49725	14
		Negative	.7059	.46967	17
		Total	.7000	.46291	50
Total	Child	Neutral	.9000	.31623	10
		Positive	.9000	.31623	10
		Negative	.6364	.50452	11
		Total	.8065	.40161	31
	Adolescent	Neutral	.6923	.48038	13
		Positive	.7000	.48305	10
		Negative	.7500	.45227	12
		Total	.7143	.45835	35

		Adult	Neutral	.5000	.51887	14
			Positive	.7143	.46881	14
			Negative	.6923	.48038	13
			Total	.6341	.48765	41
		Total	Neutral	.6757	.47458	37
			Positive	.7647	.43056	34
			Negative	.6944	.46718	36
			Total	.7103	.45577	107
L(1/2)300	Gain First	Child	Neutral	.8333	.40825	6
			Positive	1.0000	.00000	5
			Negative	.8571	.37796	7
			Total	.8889	.32338	18
		Adolescent	Neutral	.4000	.54772	5
			Positive	.7143	.48795	7
			Negative	1.0000	.00000	5
			Total	.7059	.46967	17
		Adult	Neutral	.0000	.00000	7
			Positive	.3750	.51755	8
			Negative	.5714	.53452	7
			Total	.3182	.47673	22
		Total	Neutral	.3889	.50163	18
			Positive	.6500	.48936	20
			Negative	.7895	.41885	19
			Total	.6140	.49115	57
	Loss First	Child	Neutral	.7500	.50000	4
			Positive	.6000	.54772	5
			Negative	.7500	.50000	4
			Total	.6923	.48038	13
		Adolescent	Neutral	.3750	.51755	8
			Positive	.6667	.57735	3
			Negative	.2857	.48795	7

			Total	.3889	.50163	18
		Adult	Neutral	.4286	.53452	7
			Positive	.6667	.51640	6
			Negative	.5000	.54772	6
			Total	.5263	.51299	19
		Total	Neutral	.4737	.51299	19
			Positive	.6429	.49725	14
			Negative	.4706	.51450	17
			Total	.5200	.50467	50
	Total	Child	Neutral	.8000	.42164	10
			Positive	.8000	.42164	10
			Negative	.8182	.40452	11
			Total	.8065	.40161	31
		Adolescent	Neutral	.3846	.50637	13
			Positive	.7000	.48305	10
			Negative	.5833	.51493	12
			Total	.5429	.50543	35
		Adult	Neutral	.2143	.42582	14
			Positive	.5000	.51887	14
			Negative	.5385	.51887	13
			Total	.4146	.49878	41
		Total	Neutral	.4324	.50225	37
			Positive	.6471	.48507	34
			Negative	.6389	.48714	36
			Total	.5701	.49739	107
L(1/3)15	Gain First	Child	Neutral	.5000	.54772	6
			Positive	.8000	.44721	5
			Negative	.7143	.48795	7
			Total	.6667	.48507	18
		Adolescent	Neutral	.4000	.54772	5
			Positive	.8571	.37796	7

			Negative	.6000	.54772	5
			Total	.6471	.49259	17
		Adult	Neutral	.7143	.48795	7
			Positive	.7500	.46291	8
			Negative	.8571	.37796	7
			Total	.7727	.42893	22
		Total	Neutral	.5556	.51131	18
			Positive	.8000	.41039	20
			Negative	.7368	.45241	19
			Total	.7018	.46155	57
	Loss First	Child	Neutral	.7500	.50000	4
			Positive	.8000	.44721	5
			Negative	.5000	.57735	4
			Total	.6923	.48038	13
		Adolescent	Neutral	.7500	.46291	8
			Positive	.6667	.57735	3
			Negative	.2857	.48795	7
			Total	.5556	.51131	18
		Adult	Neutral	.7143	.48795	7
			Positive	1.0000	.00000	6
			Negative	1.0000	.00000	6
			Total	.8947	.31530	19
		Total	Neutral	.7368	.45241	19
			Positive	.8571	.36314	14
			Negative	.5882	.50730	17
			Total	.7200	.45356	50
	Total	Child	Neutral	.6000	.51640	10
			Positive	.8000	.42164	10
			Negative	.6364	.50452	11
			Total	.6774	.47519	31
		Adolescent	Neutral	.6154	.50637	13

			Positive	.8000	.42164	10
			Negative	.4167	.51493	12
			Total	.6000	.49705	35
		Adult	Neutral	.7143	.46881	14
			Positive	.8571	.36314	14
			Negative	.9231	.27735	13
			Total	.8293	.38095	41
		Total	Neutral	.6486	.48398	37
			Positive	.8235	.38695	34
			Negative	.6667	.47809	36
			Total	.7103	.45577	107
L(1/3)60	Gain First	Child	Neutral	.8333	.40825	6
			Positive	1.0000	.00000	5
			Negative	.4286	.53452	7
			Total	.7222	.46089	18
		Adolescent	Neutral	.6000	.54772	5
			Positive	.4286	.53452	7
			Negative	.2000	.44721	5
			Total	.4118	.50730	17
		Adult	Neutral	.5714	.53452	7
			Positive	.7500	.46291	8
			Negative	.5714	.53452	7
			Total	.6364	.49237	22
		Total	Neutral	.6667	.48507	18
			Positive	.7000	.47016	20
			Negative	.4211	.50726	19
			Total	.5965	.49496	57
	Loss First	Child	Neutral	1.0000	.00000	4
			Positive	.6000	.54772	5
			Negative	1.0000	.00000	4
			Total	.8462	.37553	13

		Adolescent	Neutral	.5000	.53452	8
			Positive	.0000	.00000	3
			Negative	.5714	.53452	7
			Total	.4444	.51131	18
		Adult	Neutral	.7143	.48795	7
			Positive	.3333	.51640	6
			Negative	.6667	.51640	6
			Total	.5789	.50726	19
		Total	Neutral	.6842	.47757	19
			Positive	.3571	.49725	14
			Negative	.7059	.46967	17
			Total	.6000	.49487	50
	Total	Child	Neutral	.9000	.31623	10
			Positive	.8000	.42164	10
			Negative	.6364	.50452	11
			Total	.7742	.42502	31
		Adolescent	Neutral	.5385	.51887	13
			Positive	.3000	.48305	10
			Negative	.4167	.51493	12
			Total	.4286	.50210	35
		Adult	Neutral	.6429	.49725	14
			Positive	.5714	.51355	14
			Negative	.6154	.50637	13
			Total	.6098	.49386	41
		Total	Neutral	.6757	.47458	37
			Positive	.5588	.50399	34
			Negative	.5556	.50395	36
			Total	.5981	.49258	107
L(1/3)450	Gain First	Child	Neutral	1.0000	.00000	6
			Positive	1.0000	.00000	5
			Negative	.5714	.53452	7

			Total	.8333	.38348	18
		Adolescent	Neutral	.8000	.44721	5
			Positive	.1429	.37796	7
			Negative	.4000	.54772	5
			Total	.4118	.50730	17
		Adult	Neutral	.4286	.53452	7
			Positive	.3750	.51755	8
			Negative	.1429	.37796	7
			Total	.3182	.47673	22
		Total	Neutral	.7222	.46089	18
			Positive	.4500	.51042	20
			Negative	.3684	.49559	19
			Total	.5088	.50437	57
	Loss First	Child	Neutral	.7500	.50000	4
			Positive	.8000	.44721	5
			Negative	.2500	.50000	4
			Total	.6154	.50637	13
		Adolescent	Neutral	.3750	.51755	8
			Positive	.6667	.57735	3
			Negative	.7143	.48795	7
			Total	.5556	.51131	18
		Adult	Neutral	.5714	.53452	7
			Positive	.5000	.54772	6
			Negative	.3333	.51640	6
			Total	.4737	.51299	19
		Total	Neutral	.5263	.51299	19
			Positive	.6429	.49725	14
			Negative	.4706	.51450	17
			Total	.5400	.50346	50
	Total	Child	Neutral	.9000	.31623	10
			Positive	.9000	.31623	10

			Negative	.4545	.52223	11
			Total	.7419	.44480	31
		Adolescent	Neutral	.5385	.51887	13
			Positive	.3000	.48305	10
			Negative	.5833	.51493	12
			Total	.4857	.50709	35
		Adult	Neutral	.5000	.51887	14
			Positive	.4286	.51355	14
			Negative	.2308	.43853	13
			Total	.3902	.49386	41
		Total	Neutral	.6216	.49167	37
			Positive	.5294	.50664	34
			Negative	.4167	.50000	36
			Total	.5234	.50180	107
L(1/4)20	Gain First	Child	Neutral	.8333	.40825	6
			Positive	1.0000	.00000	5
			Negative	.4286	.53452	7
			Total	.7222	.46089	18
		Adolescent	Neutral	.8000	.44721	5
			Positive	.8571	.37796	7
			Negative	.6000	.54772	5
			Total	.7647	.43724	17
		Adult	Neutral	.5714	.53452	7
			Positive	.6250	.51755	8
			Negative	.7143	.48795	7
			Total	.6364	.49237	22
		Total	Neutral	.7222	.46089	18
			Positive	.8000	.41039	20
			Negative	.5789	.50726	19
			Total	.7018	.46155	57
	Loss First	Child	Neutral	1.0000	.00000	4

			Positive	.4000	.54772	5
			Negative	.5000	.57735	4
			Total	.6154	.50637	13
		Adolescent	Neutral	.8750	.35355	8
			Positive	.6667	.57735	3
			Negative	.1429	.37796	7
			Total	.5556	.51131	18
		Adult	Neutral	.8571	.37796	7
			Positive	1.0000	.00000	6
			Negative	.6667	.51640	6
			Total	.8421	.37463	19
		Total	Neutral	.8947	.31530	19
			Positive	.7143	.46881	14
			Negative	.4118	.50730	17
			Total	.6800	.47121	50
	Total	Child	Neutral	.9000	.31623	10
			Positive	.7000	.48305	10
			Negative	.4545	.52223	11
			Total	.6774	.47519	31
		Adolescent	Neutral	.8462	.37553	13
			Positive	.8000	.42164	10
			Negative	.3333	.49237	12
			Total	.6571	.48159	35
		Adult	Neutral	.7143	.46881	14
			Positive	.7857	.42582	14
			Negative	.6923	.48038	13
			Total	.7317	.44857	41
		Total	Neutral	.8108	.39706	37
			Positive	.7647	.43056	34
			Negative	.5000	.50709	36
			Total	.6916	.46401	107

L(1/4)80	Gain First	Child	Neutral	.3333	.51640	6
			Positive	1.0000	.00000	5
			Negative	.4286	.53452	7
			Total	.5556	.51131	18
		Adolescent	Neutral	.4000	.54772	5
			Positive	.7143	.48795	7
			Negative	.0000	.00000	5
			Total	.4118	.50730	17
		Adult	Neutral	.4286	.53452	7
			Positive	.5000	.53452	8
			Negative	.7143	.48795	7
			Total	.5455	.50965	22
		Total	Neutral	.3889	.50163	18
			Positive	.7000	.47016	20
			Negative	.4211	.50726	19
			Total	.5088	.50437	57
	Loss First	Child	Neutral	1.0000	.00000	4
			Positive	.6000	.54772	5
			Negative	.5000	.57735	4
			Total	.6923	.48038	13
		Adolescent	Neutral	.5000	.53452	8
			Positive	.3333	.57735	3
			Negative	.1429	.37796	7
			Total	.3333	.48507	18
		Adult	Neutral	.5714	.53452	7
			Positive	.6667	.51640	6
			Negative	.6667	.51640	6
			Total	.6316	.49559	19
		Total	Neutral	.6316	.49559	19
			Positive	.5714	.51355	14
			Negative	.4118	.50730	17

			Total	.5400	.50346	50
	Total	Child	Neutral	.6000	.51640	10
			Positive	.8000	.42164	10
			Negative	.4545	.52223	11
			Total	.6129	.49514	31
		Adolescent	Neutral	.4615	.51887	13
			Positive	.6000	.51640	10
			Negative	.0833	.28868	12
			Total	.3714	.49024	35
		Adult	Neutral	.5000	.51887	14
			Positive	.5714	.51355	14
			Negative	.6923	.48038	13
			Total	.5854	.49878	41
		Total	Neutral	.5135	.50671	37
			Positive	.6471	.48507	34
			Negative	.4167	.50000	36
			Total	.5234	.50180	107
L(1/4)600	Gain First	Child	Neutral	.8333	.40825	6
			Positive	.8000	.44721	5
			Negative	.8571	.37796	7
			Total	.8333	.38348	18
		Adolescent	Neutral	.4000	.54772	5
			Positive	.4286	.53452	7
			Negative	.4000	.54772	5
			Total	.4118	.50730	17
		Adult	Neutral	.2857	.48795	7
			Positive	.0000	.00000	8
			Negative	.1429	.37796	7
			Total	.1364	.35125	22
		Total	Neutral	.5000	.51450	18
			Positive	.3500	.48936	20

		Negative	.4737	.51299	19
		Total	.4386	.50063	57
Loss First	Child	Neutral	.7500	.50000	4
		Positive	.4000	.54772	5
		Negative	.5000	.57735	4
		Total	.5385	.51887	13
	Adolescent	Neutral	.7500	.46291	8
		Positive	.0000	.00000	3
		Negative	.5714	.53452	7
		Total	.5556	.51131	18
	Adult	Neutral	.2857	.48795	7
		Positive	.1667	.40825	6
		Negative	.3333	.51640	6
		Total	.2632	.45241	19
	Total	Neutral	.5789	.50726	19
		Positive	.2143	.42582	14
		Negative	.4706	.51450	17
		Total	.4400	.50143	50
Total	Child	Neutral	.8000	.42164	10
		Positive	.6000	.51640	10
		Negative	.7273	.46710	11
		Total	.7097	.46141	31
	Adolescent	Neutral	.6154	.50637	13
		Positive	.3000	.48305	10
		Negative	.5000	.52223	12
		Total	.4857	.50709	35
	Adult	Neutral	.2857	.46881	14
		Positive	.0714	.26726	14
		Negative	.2308	.43853	13
		Total	.1951	.40122	41
	Total	Neutral	.5405	.50523	37

	Positive	.2941	.46250	34
	Negative	.4722	.50631	36
	Total	.4393	.49863	107

Tests of Within-Subjects Effects

Measure:choice

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
frame	Sphericity Assumed	1.022	1	1.022	3.986	.049	.043
	Greenhouse-Geisser	1.022	1.000	1.022	3.986	.049	.043
	Huynh-Feldt	1.022	1.000	1.022	3.986	.049	.043
	Lower-bound	1.022	1.000	1.022	3.986	.049	.043
frame * Order	Sphericity Assumed	.309	1	.309	1.204	.275	.013
	Greenhouse-Geisser	.309	1.000	.309	1.204	.275	.013
	Huynh-Feldt	.309	1.000	.309	1.204	.275	.013
	Lower-bound	.309	1.000	.309	1.204	.275	.013
frame * Age_Group	Sphericity Assumed	.077	2	.039	.151	.860	.003
	Greenhouse-Geisser	.077	2.000	.039	.151	.860	.003
	Huynh-Feldt	.077	2.000	.039	.151	.860	.003
	Lower-bound	.077	2.000	.039	.151	.860	.003
frame * Condition	Sphericity Assumed	1.054	2	.527	2.056	.134	.044
	Greenhouse-Geisser	1.054	2.000	.527	2.056	.134	.044
	Huynh-Feldt	1.054	2.000	.527	2.056	.134	.044

	Lower-bound	1.054	2.000	.527	2.056	.134	.044
frame * Order * Age_Group	Sphericity Assumed	.306	2	.153	.597	.553	.013
	Greenhouse-Geisser	.306	2.000	.153	.597	.553	.013
	Huynh-Feldt	.306	2.000	.153	.597	.553	.013
	Lower-bound	.306	2.000	.153	.597	.553	.013
frame * Order * Condition	Sphericity Assumed	.558	2	.279	1.089	.341	.024
	Greenhouse-Geisser	.558	2.000	.279	1.089	.341	.024
	Huynh-Feldt	.558	2.000	.279	1.089	.341	.024
	Lower-bound	.558	2.000	.279	1.089	.341	.024
frame * Age_Group * Condition	Sphericity Assumed	.501	4	.125	.488	.744	.021
	Greenhouse-Geisser	.501	4.000	.125	.488	.744	.021
	Huynh-Feldt	.501	4.000	.125	.488	.744	.021
	Lower-bound	.501	4.000	.125	.488	.744	.021
frame * Order * Age_Group * Condition	Sphericity Assumed	2.429	4	.607	2.368	.059	.096
	Greenhouse-Geisser	2.429	4.000	.607	2.368	.059	.096
	Huynh-Feldt	2.429	4.000	.607	2.368	.059	.096
	Lower-bound	2.429	4.000	.607	2.368	.059	.096
Error(frame)	Sphericity Assumed	22.818	89	.256			
	Greenhouse-Geisser	22.818	89.000	.256			
	Huynh-Feldt	22.818	89.000	.256			
	Lower-bound	22.818	89.000	.256			
risk	Sphericity Assumed	5.778	2	2.889	12.607	.000	.124

	Greenhouse-Geisser	5.778	1.804	3.204	12.607	.000	.124
	Huynh-Feldt	5.778	2.000	2.889	12.607	.000	.124
	Lower-bound	5.778	1.000	5.778	12.607	.001	.124
risk * Order	Sphericity Assumed	.563	2	.281	1.228	.295	.014
	Greenhouse-Geisser	.563	1.804	.312	1.228	.293	.014
	Huynh-Feldt	.563	2.000	.281	1.228	.295	.014
	Lower-bound	.563	1.000	.563	1.228	.271	.014
risk * Age_Group	Sphericity Assumed	1.129	4	.282	1.231	.299	.027
	Greenhouse-Geisser	1.129	3.607	.313	1.231	.300	.027
	Huynh-Feldt	1.129	4.000	.282	1.231	.299	.027
	Lower-bound	1.129	2.000	.564	1.231	.297	.027
risk * Condition	Sphericity Assumed	1.263	4	.316	1.378	.244	.030
	Greenhouse-Geisser	1.263	3.607	.350	1.378	.247	.030
	Huynh-Feldt	1.263	4.000	.316	1.378	.244	.030
	Lower-bound	1.263	2.000	.631	1.378	.258	.030
risk * Order * Age_Group	Sphericity Assumed	.527	4	.132	.575	.681	.013
	Greenhouse-Geisser	.527	3.607	.146	.575	.663	.013
	Huynh-Feldt	.527	4.000	.132	.575	.681	.013
	Lower-bound	.527	2.000	.264	.575	.565	.013
risk * Order * Condition	Sphericity Assumed	.752	4	.188	.821	.514	.018
	Greenhouse-Geisser	.752	3.607	.209	.821	.503	.018
	Huynh-Feldt	.752	4.000	.188	.821	.514	.018

	Lower-bound	.752	2.000	.376	.821	.443	.018
risk * Age_Group * Condition	Sphericity Assumed	.218	8	.027	.119	.998	.005
	Greenhouse-Geisser	.218	7.215	.030	.119	.997	.005
	Huynh-Feldt	.218	8.000	.027	.119	.998	.005
	Lower-bound	.218	4.000	.055	.119	.975	.005
risk * Order * Age_Group * Condition	Sphericity Assumed	2.971	8	.371	1.621	.122	.068
	Greenhouse-Geisser	2.971	7.215	.412	1.621	.131	.068
	Huynh-Feldt	2.971	8.000	.371	1.621	.122	.068
	Lower-bound	2.971	4.000	.743	1.621	.176	.068
Error(risk)	Sphericity Assumed	40.794	178	.229			
	Greenhouse-Geisser	40.794	160.529	.254			
	Huynh-Feldt	40.794	178.000	.229			
	Lower-bound	40.794	89.000	.458			
reward	Sphericity Assumed	9.354	2	4.677	18.576	.000	.173
	Greenhouse-Geisser	9.354	1.833	5.104	18.576	.000	.173
	Huynh-Feldt	9.354	2.000	4.677	18.576	.000	.173
	Lower-bound	9.354	1.000	9.354	18.576	.000	.173
reward * Order	Sphericity Assumed	1.612	2	.806	3.202	.043	.035
	Greenhouse-Geisser	1.612	1.833	.880	3.202	.048	.035
	Huynh-Feldt	1.612	2.000	.806	3.202	.043	.035
	Lower-bound	1.612	1.000	1.612	3.202	.077	.035
reward * Age_Group	Sphericity Assumed	14.211	4	3.553	14.111	.000	.241

	Greenhouse-Geisser	14.211	3.666	3.877	14.111	.000	.241
	Huynh-Feldt	14.211	4.000	3.553	14.111	.000	.241
	Lower-bound	14.211	2.000	7.106	14.111	.000	.241
reward * Condition	Sphericity Assumed	1.988	4	.497	1.974	.100	.042
	Greenhouse-Geisser	1.988	3.666	.542	1.974	.107	.042
	Huynh-Feldt	1.988	4.000	.497	1.974	.100	.042
	Lower-bound	1.988	2.000	.994	1.974	.145	.042
reward * Order * Age_Group	Sphericity Assumed	2.050	4	.512	2.035	.091	.044
	Greenhouse-Geisser	2.050	3.666	.559	2.035	.098	.044
	Huynh-Feldt	2.050	4.000	.512	2.035	.091	.044
	Lower-bound	2.050	2.000	1.025	2.035	.137	.044
reward * Order * Condition	Sphericity Assumed	3.133	4	.783	3.111	.017	.065
	Greenhouse-Geisser	3.133	3.666	.855	3.111	.020	.065
	Huynh-Feldt	3.133	4.000	.783	3.111	.017	.065
	Lower-bound	3.133	2.000	1.566	3.111	.049	.065
reward * Age_Group * Condition	Sphericity Assumed	2.521	8	.315	1.252	.272	.053
	Greenhouse-Geisser	2.521	7.331	.344	1.252	.276	.053
	Huynh-Feldt	2.521	8.000	.315	1.252	.272	.053
	Lower-bound	2.521	4.000	.630	1.252	.295	.053
reward * Order * Age_Group * Condition	Sphericity Assumed	1.248	8	.156	.620	.761	.027
	Greenhouse-Geisser	1.248	7.331	.170	.620	.746	.027
	Huynh-Feldt	1.248	8.000	.156	.620	.761	.027

	Lower-bound	1.248	4.000	.312	.620	.650	.027
Error(reward)	Sphericity Assumed	44.817	178	.252			
	Greenhouse-Geisser	44.817	163.123	.275			
	Huynh-Feldt	44.817	178.000	.252			
	Lower-bound	44.817	89.000	.504			
frame * risk	Sphericity Assumed	.321	2	.161	1.174	.312	.013
	Greenhouse-Geisser	.321	1.985	.162	1.174	.311	.013
	Huynh-Feldt	.321	2.000	.161	1.174	.312	.013
	Lower-bound	.321	1.000	.321	1.174	.282	.013
frame * risk * Order	Sphericity Assumed	.244	2	.122	.889	.413	.010
	Greenhouse-Geisser	.244	1.985	.123	.889	.412	.010
	Huynh-Feldt	.244	2.000	.122	.889	.413	.010
	Lower-bound	.244	1.000	.244	.889	.348	.010
frame * risk * Age_Group	Sphericity Assumed	.449	4	.112	.819	.515	.018
	Greenhouse-Geisser	.449	3.970	.113	.819	.514	.018
	Huynh-Feldt	.449	4.000	.112	.819	.515	.018
	Lower-bound	.449	2.000	.224	.819	.444	.018
frame * risk * Condition	Sphericity Assumed	1.845	4	.461	3.368	.011	.070
	Greenhouse-Geisser	1.845	3.970	.465	3.368	.011	.070
	Huynh-Feldt	1.845	4.000	.461	3.368	.011	.070
	Lower-bound	1.845	2.000	.922	3.368	.039	.070
frame * risk * Order * Age_Group	Sphericity Assumed	.802	4	.201	1.464	.215	.032

	Greenhouse-Geisser	.802	3.970	.202	1.464	.215	.032
	Huynh-Feldt	.802	4.000	.201	1.464	.215	.032
	Lower-bound	.802	2.000	.401	1.464	.237	.032
frame * risk * Order * Condition	Sphericity Assumed	1.177	4	.294	2.149	.077	.046
	Greenhouse-Geisser	1.177	3.970	.297	2.149	.077	.046
	Huynh-Feldt	1.177	4.000	.294	2.149	.077	.046
	Lower-bound	1.177	2.000	.589	2.149	.123	.046
frame * risk * Age_Group * Condition	Sphericity Assumed	2.190	8	.274	1.999	.049	.082
	Greenhouse-Geisser	2.190	7.940	.276	1.999	.050	.082
	Huynh-Feldt	2.190	8.000	.274	1.999	.049	.082
	Lower-bound	2.190	4.000	.547	1.999	.102	.082
frame * risk * Order * Age_Group * Condition	Sphericity Assumed	1.934	8	.242	1.765	.087	.073
	Greenhouse-Geisser	1.934	7.940	.244	1.765	.087	.073
	Huynh-Feldt	1.934	8.000	.242	1.765	.087	.073
	Lower-bound	1.934	4.000	.483	1.765	.143	.073
Error(frame*risk)	Sphericity Assumed	24.376	178	.137			
	Greenhouse-Geisser	24.376	176.660	.138			
	Huynh-Feldt	24.376	178.000	.137			
	Lower-bound	24.376	89.000	.274			
frame * reward	Sphericity Assumed	.787	2	.394	1.665	.192	.018
	Greenhouse-Geisser	.787	1.947	.404	1.665	.193	.018
	Huynh-Feldt	.787	2.000	.394	1.665	.192	.018

	Lower-bound	.787	1.000	.787	1.665	.200	.018
frame * reward * Order	Sphericity Assumed	.618	2	.309	1.307	.273	.014
	Greenhouse-Geisser	.618	1.947	.317	1.307	.273	.014
	Huynh-Feldt	.618	2.000	.309	1.307	.273	.014
	Lower-bound	.618	1.000	.618	1.307	.256	.014
frame * reward * Age_Group	Sphericity Assumed	.883	4	.221	.934	.446	.021
	Greenhouse-Geisser	.883	3.894	.227	.934	.444	.021
	Huynh-Feldt	.883	4.000	.221	.934	.446	.021
	Lower-bound	.883	2.000	.442	.934	.397	.021
frame * reward * Condition	Sphericity Assumed	.446	4	.112	.472	.756	.010
	Greenhouse-Geisser	.446	3.894	.115	.472	.751	.010
	Huynh-Feldt	.446	4.000	.112	.472	.756	.010
	Lower-bound	.446	2.000	.223	.472	.625	.010
frame * reward * Order * Age_Group	Sphericity Assumed	.539	4	.135	.570	.685	.013
	Greenhouse-Geisser	.539	3.894	.138	.570	.680	.013
	Huynh-Feldt	.539	4.000	.135	.570	.685	.013
	Lower-bound	.539	2.000	.270	.570	.567	.013
frame * reward * Order * Condition	Sphericity Assumed	.086	4	.022	.091	.985	.002
	Greenhouse-Geisser	.086	3.894	.022	.091	.984	.002
	Huynh-Feldt	.086	4.000	.022	.091	.985	.002
	Lower-bound	.086	2.000	.043	.091	.913	.002
frame * reward * Age_Group *	Sphericity Assumed	1.661	8	.208	.878	.536	.038

Condition	Greenhouse-Geisser	1.661	7.788	.213	.878	.534	.038
	Huynh-Feldt	1.661	8.000	.208	.878	.536	.038
	Lower-bound	1.661	4.000	.415	.878	.481	.038
frame * reward * Order * Age_Group * Condition	Sphericity Assumed	.741	8	.093	.392	.924	.017
	Greenhouse-Geisser	.741	7.788	.095	.392	.921	.017
	Huynh-Feldt	.741	8.000	.093	.392	.924	.017
	Lower-bound	.741	4.000	.185	.392	.814	.017
Error(frame*reward)	Sphericity Assumed	42.087	178	.236			
	Greenhouse-Geisser	42.087	173.280	.243			
	Huynh-Feldt	42.087	178.000	.236			
	Lower-bound	42.087	89.000	.473			
risk * reward	Sphericity Assumed	.445	4	.111	.754	.556	.008
	Greenhouse-Geisser	.445	3.658	.122	.754	.545	.008
	Huynh-Feldt	.445	4.000	.111	.754	.556	.008
	Lower-bound	.445	1.000	.445	.754	.387	.008
risk * reward * Order	Sphericity Assumed	.161	4	.040	.273	.895	.003
	Greenhouse-Geisser	.161	3.658	.044	.273	.880	.003
	Huynh-Feldt	.161	4.000	.040	.273	.895	.003
	Lower-bound	.161	1.000	.161	.273	.602	.003
risk * reward * Age_Group	Sphericity Assumed	.869	8	.109	.737	.658	.016
	Greenhouse-Geisser	.869	7.316	.119	.737	.646	.016
	Huynh-Feldt	.869	8.000	.109	.737	.658	.016

	Lower-bound	.869	2.000	.434	.737	.481	.016
risk * reward * Condition	Sphericity Assumed	2.694	8	.337	2.286	.021	.049
	Greenhouse-Geisser	2.694	7.316	.368	2.286	.025	.049
	Huynh-Feldt	2.694	8.000	.337	2.286	.021	.049
	Lower-bound	2.694	2.000	1.347	2.286	.108	.049
risk * reward * Order * Age_Group	Sphericity Assumed	.671	8	.084	.570	.803	.013
	Greenhouse-Geisser	.671	7.316	.092	.570	.788	.013
	Huynh-Feldt	.671	8.000	.084	.570	.803	.013
	Lower-bound	.671	2.000	.336	.570	.568	.013
risk * reward * Order * Condition	Sphericity Assumed	1.882	8	.235	1.597	.124	.035
	Greenhouse-Geisser	1.882	7.316	.257	1.597	.132	.035
	Huynh-Feldt	1.882	8.000	.235	1.597	.124	.035
	Lower-bound	1.882	2.000	.941	1.597	.208	.035
risk * reward * Age_Group * Condition	Sphericity Assumed	1.380	16	.086	.585	.895	.026
	Greenhouse-Geisser	1.380	14.631	.094	.585	.882	.026
	Huynh-Feldt	1.380	16.000	.086	.585	.895	.026
	Lower-bound	1.380	4.000	.345	.585	.674	.026
risk * reward * Order * Age_Group * Condition	Sphericity Assumed	4.352	16	.272	1.847	.024	.077
	Greenhouse-Geisser	4.352	14.631	.297	1.847	.029	.077
	Huynh-Feldt	4.352	16.000	.272	1.847	.024	.077
	Lower-bound	4.352	4.000	1.088	1.847	.127	.077
Error(risk*reward)	Sphericity Assumed	52.445	356	.147			

	Greenhouse-Geisser	52.445	325.549	.161			
	Huynh-Feldt	52.445	356.000	.147			
	Lower-bound	52.445	89.000	.589			
frame * risk * reward	Sphericity Assumed	.094	4	.024	.171	.953	.002
	Greenhouse-Geisser	.094	3.627	.026	.171	.942	.002
	Huynh-Feldt	.094	4.000	.024	.171	.953	.002
	Lower-bound	.094	1.000	.094	.171	.680	.002
frame * risk * reward * Order	Sphericity Assumed	.263	4	.066	.478	.752	.005
	Greenhouse-Geisser	.263	3.627	.072	.478	.734	.005
	Huynh-Feldt	.263	4.000	.066	.478	.752	.005
	Lower-bound	.263	1.000	.263	.478	.491	.005
frame * risk * reward * Age_Group	Sphericity Assumed	.903	8	.113	.821	.584	.018
	Greenhouse-Geisser	.903	7.254	.125	.821	.574	.018
	Huynh-Feldt	.903	8.000	.113	.821	.584	.018
	Lower-bound	.903	2.000	.452	.821	.443	.018
frame * risk * reward * Condition	Sphericity Assumed	2.609	8	.326	2.372	.017	.051
	Greenhouse-Geisser	2.609	7.254	.360	2.372	.021	.051
	Huynh-Feldt	2.609	8.000	.326	2.372	.017	.051
	Lower-bound	2.609	2.000	1.304	2.372	.099	.051
frame * risk * reward * Order * Age_Group	Sphericity Assumed	1.654	8	.207	1.503	.155	.033
	Greenhouse-Geisser	1.654	7.254	.228	1.503	.163	.033
	Huynh-Feldt	1.654	8.000	.207	1.503	.155	.033

	Lower-bound	1.654	2.000	.827	1.503	.228	.033
frame * risk * reward * Order * Condition	Sphericity Assumed	1.135	8	.142	1.031	.412	.023
	Greenhouse-Geisser	1.135	7.254	.156	1.031	.410	.023
	Huynh-Feldt	1.135	8.000	.142	1.031	.412	.023
	Lower-bound	1.135	2.000	.567	1.031	.361	.023
frame * risk * reward * Age_Group * Condition	Sphericity Assumed	1.936	16	.121	.880	.593	.038
	Greenhouse-Geisser	1.936	14.507	.133	.880	.584	.038
	Huynh-Feldt	1.936	16.000	.121	.880	.593	.038
	Lower-bound	1.936	4.000	.484	.880	.479	.038
frame * risk * reward * Order * Age_Group * Condition	Sphericity Assumed	2.094	16	.131	.952	.510	.041
	Greenhouse-Geisser	2.094	14.507	.144	.952	.505	.041
	Huynh-Feldt	2.094	16.000	.131	.952	.510	.041
	Lower-bound	2.094	4.000	.523	.952	.438	.041
Error(frame*risk*reward)	Sphericity Assumed	48.952	356	.138			
	Greenhouse-Geisser	48.952	322.790	.152			
	Huynh-Feldt	48.952	356.000	.138			
	Lower-bound	48.952	89.000	.550			

Tests of Between-Subjects Effects

Measure:choice

Transformed Variable:Average

Source	Type III Sum of Squares	df	Mean Square	F
Intercept	663.688	1	663.688	937.364
Order	.179	1	.179	.253
Age_Group	11.458	2	5.729	8.091

Condition	.984	2	.492	.695
Order * Age_Group	2.591	2	1.295	1.830
Order * Condition	5.758	2	2.879	4.066
Age_Group * Condition	3.388	4	.847	1.196
Order * Age_Group * Condition	3.787	4	.947	1.337
Error	63.015	89	.708	

Tests of Between-Subjects Effects

Measure:choice

Transformed Variable:Average

Source	Sig.	Partial Eta Squared
Intercept	.000	.913
Order	.616	.003
Age_Group	.001	.154
Condition	.502	.015
Order * Age_Group	.166	.039
Order * Condition	.020	.084
Age_Group * Condition	.318	.051
Order * Age_Group * Condition	.262	.057

APPENDIX D

Descriptives and Summary Tables for Choice by Valence Analysis

Descriptive Statistics

	Order	Age_Group	-1 = Negative; 0 = Neutral; 1 = Positive	Mean	Std. Deviation	N
G(1/2)5	Gain First	Child	Negative	.6667	.57735	3
			Neutral	.8333	.40825	6
			Positive	.6667	.50000	9
			Total	.7222	.46089	18
		Adolescent	Negative	.4000	.54772	5
			Neutral	.6667	.57735	3
			Positive	.7778	.44096	9
			Total	.6471	.49259	17
		Adult	Negative	.5714	.53452	7
			Neutral	1.0000	.00000	2
			Positive	.8462	.37553	13
			Total	.7727	.42893	22
		Total	Negative	.5333	.51640	15
			Neutral	.8182	.40452	11
			Positive	.7742	.42502	31
			Total	.7193	.45334	57
	Loss First	Child	Negative	1.0000	.	1
			Neutral	.7500	.50000	4
			Positive	.7500	.46291	8
			Total	.7692	.43853	13
		Adolescent	Negative	.6667	.51640	6
			Neutral	.7500	.50000	4
			Positive	.6250	.51755	8
			Total	.6667	.48507	18

		Adult	Negative	.6250	.51755	8
			Neutral	1.0000	.00000	2
			Positive	.8889	.33333	9
			Total	.7895	.41885	19
		Total	Negative	.6667	.48795	15
			Neutral	.8000	.42164	10
			Positive	.7600	.43589	25
			Total	.7400	.44309	50
	Total	Child	Negative	.7500	.50000	4
			Neutral	.8000	.42164	10
			Positive	.7059	.46967	17
			Total	.7419	.44480	31
		Adolescent	Negative	.5455	.52223	11
			Neutral	.7143	.48795	7
			Positive	.7059	.46967	17
			Total	.6571	.48159	35
		Adult	Negative	.6000	.50709	15
			Neutral	1.0000	.00000	4
			Positive	.8636	.35125	22
			Total	.7805	.41906	41
		Total	Negative	.6000	.49827	30
			Neutral	.8095	.40237	21
			Positive	.7679	.42602	56
			Total	.7290	.44658	107
G(1/2)20	Gain First	Child	Negative	.6667	.57735	3
			Neutral	.5000	.54772	6
			Positive	.6667	.50000	9
			Total	.6111	.50163	18
		Adolescent	Negative	.4000	.54772	5
			Neutral	.6667	.57735	3

			Positive	.8889	.33333	9
			Total	.7059	.46967	17
		Adult	Negative	.5714	.53452	7
			Neutral	.0000	.00000	2
			Positive	.7692	.43853	13
			Total	.6364	.49237	22
		Total	Negative	.5333	.51640	15
			Neutral	.4545	.52223	11
			Positive	.7742	.42502	31
			Total	.6491	.48149	57
	Loss First	Child	Negative	1.0000	.	1
			Neutral	.7500	.50000	4
			Positive	.8750	.35355	8
			Total	.8462	.37553	13
		Adolescent	Negative	.3333	.51640	6
			Neutral	1.0000	.00000	4
			Positive	.6250	.51755	8
			Total	.6111	.50163	18
		Adult	Negative	.6250	.51755	8
			Neutral	.0000	.00000	2
			Positive	.3333	.50000	9
			Total	.4211	.50726	19
		Total	Negative	.5333	.51640	15
			Neutral	.7000	.48305	10
			Positive	.6000	.50000	25
			Total	.6000	.49487	50
	Total	Child	Negative	.7500	.50000	4
			Neutral	.6000	.51640	10
			Positive	.7647	.43724	17
			Total	.7097	.46141	31
		Adolescent	Negative	.3636	.50452	11

			Neutral	.8571	.37796	7
			Positive	.7647	.43724	17
			Total	.6571	.48159	35
		Adult	Negative	.6000	.50709	15
			Neutral	.0000	.00000	4
			Positive	.5909	.50324	22
			Total	.5366	.50485	41
		Total	Negative	.5333	.50742	30
			Neutral	.5714	.50709	21
			Positive	.6964	.46396	56
			Total	.6262	.48610	107
G(1/2)150	Gain First	Child	Negative	1.0000	.00000	3
			Neutral	1.0000	.00000	6
			Positive	.6667	.50000	9
			Total	.8333	.38348	18
		Adolescent	Negative	.8000	.44721	5
			Neutral	.3333	.57735	3
			Positive	.6667	.50000	9
			Total	.6471	.49259	17
		Adult	Negative	.2857	.48795	7
			Neutral	.5000	.70711	2
			Positive	.3846	.50637	13
			Total	.3636	.49237	22
		Total	Negative	.6000	.50709	15
			Neutral	.7273	.46710	11
			Positive	.5484	.50588	31
			Total	.5965	.49496	57
	Loss First	Child	Negative	.0000	.	1
			Neutral	1.0000	.00000	4
			Positive	.7500	.46291	8
			Total	.7692	.43853	13

		Adolescent	Negative	.1667	.40825	6
			Neutral	.2500	.50000	4
			Positive	.6250	.51755	8
			Total	.3889	.50163	18
		Adult	Negative	.3750	.51755	8
			Neutral	.0000	.00000	2
			Positive	.3333	.50000	9
			Total	.3158	.47757	19
		Total	Negative	.2667	.45774	15
			Neutral	.5000	.52705	10
			Positive	.5600	.50662	25
			Total	.4600	.50346	50
	Total	Child	Negative	.7500	.50000	4
			Neutral	1.0000	.00000	10
			Positive	.7059	.46967	17
			Total	.8065	.40161	31
		Adolescent	Negative	.4545	.52223	11
			Neutral	.2857	.48795	7
			Positive	.6471	.49259	17
			Total	.5143	.50709	35
		Adult	Negative	.3333	.48795	15
			Neutral	.2500	.50000	4
			Positive	.3636	.49237	22
			Total	.3415	.48009	41
		Total	Negative	.4333	.50401	30
			Neutral	.6190	.49761	21
			Positive	.5536	.50162	56
			Total	.5327	.50128	107
G(1/3)5	Gain First	Child	Negative	.3333	.57735	3
			Neutral	.3333	.51640	6
			Positive	.5556	.52705	9

		Total	.4444	.51131	18
	Adolescent	Negative	.4000	.54772	5
		Neutral	.3333	.57735	3
		Positive	.7778	.44096	9
		Total	.5882	.50730	17
	Adult	Negative	.5714	.53452	7
		Neutral	1.0000	.00000	2
		Positive	.5385	.51887	13
		Total	.5909	.50324	22
	Total	Negative	.4667	.51640	15
		Neutral	.4545	.52223	11
		Positive	.6129	.49514	31
		Total	.5439	.50250	57
Loss First	Child	Negative	.0000	.	1
		Neutral	.5000	.57735	4
		Positive	.7500	.46291	8
		Total	.6154	.50637	13
	Adolescent	Negative	.5000	.54772	6
		Neutral	.7500	.50000	4
		Positive	.6250	.51755	8
		Total	.6111	.50163	18
	Adult	Negative	.8750	.35355	8
		Neutral	.5000	.70711	2
		Positive	.8889	.33333	9
		Total	.8421	.37463	19
	Total	Negative	.6667	.48795	15
		Neutral	.6000	.51640	10
		Positive	.7600	.43589	25
		Total	.7000	.46291	50
Total	Child	Negative	.2500	.50000	4
		Neutral	.4000	.51640	10

			Positive	.6471	.49259	17
			Total	.5161	.50800	31
		Adolescent	Negative	.4545	.52223	11
			Neutral	.5714	.53452	7
			Positive	.7059	.46967	17
			Total	.6000	.49705	35
		Adult	Negative	.7333	.45774	15
			Neutral	.7500	.50000	4
			Positive	.6818	.47673	22
			Total	.7073	.46065	41
		Total	Negative	.5667	.50401	30
			Neutral	.5238	.51177	21
			Positive	.6786	.47125	56
			Total	.6168	.48845	107
G1320	Gain First	Child	Negative	.6667	.57735	3
			Neutral	.5000	.54772	6
			Positive	.5556	.52705	9
			Total	.5556	.51131	18
		Adolescent	Negative	.2000	.44721	5
			Neutral	.3333	.57735	3
			Positive	.8889	.33333	9
			Total	.5882	.50730	17
		Adult	Negative	.5714	.53452	7
			Neutral	.5000	.70711	2
			Positive	.4615	.51887	13
			Total	.5000	.51177	22
		Total	Negative	.4667	.51640	15
			Neutral	.4545	.52223	11
			Positive	.6129	.49514	31
			Total	.5439	.50250	57
	Loss First	Child	Negative	1.0000	.	1

		Neutral	.5000	.57735	4
		Positive	.7500	.46291	8
		Total	.6923	.48038	13
	Adolescent	Negative	.1667	.40825	6
		Neutral	1.0000	.00000	4
		Positive	.6250	.51755	8
		Total	.5556	.51131	18
	Adult	Negative	.8750	.35355	8
		Neutral	.5000	.70711	2
		Positive	.6667	.50000	9
		Total	.7368	.45241	19
	Total	Negative	.6000	.50709	15
		Neutral	.7000	.48305	10
		Positive	.6800	.47610	25
		Total	.6600	.47852	50
Total	Child	Negative	.7500	.50000	4
		Neutral	.5000	.52705	10
		Positive	.6471	.49259	17
		Total	.6129	.49514	31
	Adolescent	Negative	.1818	.40452	11
		Neutral	.7143	.48795	7
		Positive	.7647	.43724	17
		Total	.5714	.50210	35
	Adult	Negative	.7333	.45774	15
		Neutral	.5000	.57735	4
		Positive	.5455	.50965	22
		Total	.6098	.49386	41
	Total	Negative	.5333	.50742	30
		Neutral	.5714	.50709	21
		Positive	.6429	.48349	56
		Total	.5981	.49258	107

G(1/3)150	Gain First	Child	Negative	1.0000	.00000	3
			Neutral	.8333	.40825	6
			Positive	.7778	.44096	9
			Total	.8333	.38348	18
		Adolescent	Negative	.8000	.44721	5
			Neutral	.0000	.00000	3
			Positive	.6667	.50000	9
			Total	.5882	.50730	17
		Adult	Negative	.2857	.48795	7
			Neutral	.0000	.00000	2
			Positive	.2308	.43853	13
			Total	.2273	.42893	22
		Total	Negative	.6000	.50709	15
			Neutral	.4545	.52223	11
			Positive	.5161	.50800	31
			Total	.5263	.50375	57
	Loss First	Child	Negative	1.0000	.	1
			Neutral	.7500	.50000	4
			Positive	.7500	.46291	8
			Total	.7692	.43853	13
		Adolescent	Negative	.0000	.00000	6
			Neutral	.7500	.50000	4
			Positive	.3750	.51755	8
			Total	.3333	.48507	18
		Adult	Negative	.5000	.53452	8
			Neutral	.0000	.00000	2
			Positive	.4444	.52705	9
			Total	.4211	.50726	19
		Total	Negative	.3333	.48795	15
			Neutral	.6000	.51640	10
			Positive	.5200	.50990	25

			Total	.4800	.50467	50
	Total	Child	Negative	1.0000	.00000	4
			Neutral	.8000	.42164	10
			Positive	.7647	.43724	17
			Total	.8065	.40161	31
		Adolescent	Negative	.3636	.50452	11
			Neutral	.4286	.53452	7
			Positive	.5294	.51450	17
			Total	.4571	.50543	35
		Adult	Negative	.4000	.50709	15
			Neutral	.0000	.00000	4
			Positive	.3182	.47673	22
			Total	.3171	.47112	41
		Total	Negative	.4667	.50742	30
			Neutral	.5238	.51177	21
			Positive	.5179	.50420	56
			Total	.5047	.50233	107
G(1/4)5	Gain First	Child	Negative	.3333	.57735	3
			Neutral	.5000	.54772	6
			Positive	.4444	.52705	9
			Total	.4444	.51131	18
		Adolescent	Negative	.8000	.44721	5
			Neutral	.3333	.57735	3
			Positive	.3333	.50000	9
			Total	.4706	.51450	17
		Adult	Negative	.5714	.53452	7
			Neutral	.5000	.70711	2
			Positive	.5385	.51887	13
			Total	.5455	.50965	22
		Total	Negative	.6000	.50709	15
			Neutral	.4545	.52223	11

		Positive	.4516	.50588	31
		Total	.4912	.50437	57
Loss First	Child	Negative	1.0000	.	1
		Neutral	.7500	.50000	4
		Positive	.7500	.46291	8
		Total	.7692	.43853	13
	Adolescent	Negative	.5000	.54772	6
		Neutral	.7500	.50000	4
		Positive	.6250	.51755	8
		Total	.6111	.50163	18
	Adult	Negative	.7500	.46291	8
		Neutral	.5000	.70711	2
		Positive	.6667	.50000	9
		Total	.6842	.47757	19
	Total	Negative	.6667	.48795	15
		Neutral	.7000	.48305	10
		Positive	.6800	.47610	25
		Total	.6800	.47121	50
Total	Child	Negative	.5000	.57735	4
		Neutral	.6000	.51640	10
		Positive	.5882	.50730	17
		Total	.5806	.50161	31
	Adolescent	Negative	.6364	.50452	11
		Neutral	.5714	.53452	7
		Positive	.4706	.51450	17
		Total	.5429	.50543	35
	Adult	Negative	.6667	.48795	15
		Neutral	.5000	.57735	4
		Positive	.5909	.50324	22
		Total	.6098	.49386	41
	Total	Negative	.6333	.49013	30

			Neutral	.5714	.50709	21
			Positive	.5536	.50162	56
			Total	.5794	.49597	107
G(1/4)20	Gain First	Child	Negative	.3333	.57735	3
			Neutral	.5000	.54772	6
			Positive	.6667	.50000	9
			Total	.5556	.51131	18
		Adolescent	Negative	.8000	.44721	5
			Neutral	.6667	.57735	3
			Positive	.3333	.50000	9
			Total	.5294	.51450	17
		Adult	Negative	.2857	.48795	7
			Neutral	.0000	.00000	2
			Positive	.3846	.50637	13
			Total	.3182	.47673	22
		Total	Negative	.4667	.51640	15
			Neutral	.4545	.52223	11
			Positive	.4516	.50588	31
			Total	.4561	.50250	57
	Loss First	Child	Negative	1.0000	.	1
			Neutral	1.0000	.00000	4
			Positive	.6250	.51755	8
			Total	.7692	.43853	13
		Adolescent	Negative	.6667	.51640	6
			Neutral	.2500	.50000	4
			Positive	.5000	.53452	8
			Total	.5000	.51450	18
		Adult	Negative	.8750	.35355	8
			Neutral	.5000	.70711	2
			Positive	.4444	.52705	9
			Total	.6316	.49559	19

		Total	Negative	.8000	.41404	15
			Neutral	.6000	.51640	10
			Positive	.5200	.50990	25
			Total	.6200	.49031	50
	Total	Child	Negative	.5000	.57735	4
			Neutral	.7000	.48305	10
			Positive	.6471	.49259	17
			Total	.6452	.48637	31
		Adolescent	Negative	.7273	.46710	11
			Neutral	.4286	.53452	7
			Positive	.4118	.50730	17
			Total	.5143	.50709	35
		Adult	Negative	.6000	.50709	15
			Neutral	.2500	.50000	4
			Positive	.4091	.50324	22
			Total	.4634	.50485	41
		Total	Negative	.6333	.49013	30
			Neutral	.5238	.51177	21
			Positive	.4821	.50420	56
			Total	.5327	.50128	107
G(1/4)150	Gain First	Child	Negative	1.0000	.00000	3
			Neutral	1.0000	.00000	6
			Positive	.7778	.44096	9
			Total	.8889	.32338	18
		Adolescent	Negative	.6000	.54772	5
			Neutral	.0000	.00000	3
			Positive	.4444	.52705	9
			Total	.4118	.50730	17
		Adult	Negative	.1429	.37796	7
			Neutral	.5000	.70711	2
			Positive	.2308	.43853	13

		Total	.2273	.42893	22
	Total	Negative	.4667	.51640	15
		Neutral	.6364	.50452	11
		Positive	.4516	.50588	31
		Total	.4912	.50437	57
Loss First	Child	Negative	1.0000	.	1
		Neutral	.7500	.50000	4
		Positive	.5000	.53452	8
		Total	.6154	.50637	13
	Adolescent	Negative	.1667	.40825	6
		Neutral	.5000	.57735	4
		Positive	.5000	.53452	8
		Total	.3889	.50163	18
	Adult	Negative	.3750	.51755	8
		Neutral	.0000	.00000	2
		Positive	.3333	.50000	9
		Total	.3158	.47757	19
	Total	Negative	.3333	.48795	15
		Neutral	.5000	.52705	10
		Positive	.4400	.50662	25
		Total	.4200	.49857	50
Total	Child	Negative	1.0000	.00000	4
		Neutral	.9000	.31623	10
		Positive	.6471	.49259	17
		Total	.7742	.42502	31
	Adolescent	Negative	.3636	.50452	11
		Neutral	.2857	.48795	7
		Positive	.4706	.51450	17
		Total	.4000	.49705	35
	Adult	Negative	.2667	.45774	15
		Neutral	.2500	.50000	4

			Positive	.2727	.45584	22
			Total	.2683	.44857	41
		Total	Negative	.4000	.49827	30
			Neutral	.5714	.50709	21
			Positive	.4464	.50162	56
			Total	.4579	.50057	107
L(1/2)10	Gain First	Child	Negative	.3333	.57735	3
			Neutral	1.0000	.00000	6
			Positive	.6667	.50000	9
			Total	.7222	.46089	18
		Adolescent	Negative	.6000	.54772	5
			Neutral	1.0000	.00000	3
			Positive	1.0000	.00000	9
			Total	.8824	.33211	17
		Adult	Negative	1.0000	.00000	7
			Neutral	1.0000	.00000	2
			Positive	.7692	.43853	13
			Total	.8636	.35125	22
		Total	Negative	.7333	.45774	15
			Neutral	1.0000	.00000	11
			Positive	.8065	.40161	31
			Total	.8246	.38372	57
	Loss First	Child	Negative	1.0000	.	1
			Neutral	.7500	.50000	4
			Positive	1.0000	.00000	8
			Total	.9231	.27735	13
		Adolescent	Negative	.8333	.40825	6
			Neutral	.7500	.50000	4
			Positive	.8750	.35355	8
			Total	.8333	.38348	18
		Adult	Negative	.7500	.46291	8

			Neutral	1.0000	.00000	2
			Positive	.8889	.33333	9
			Total	.8421	.37463	19
		Total	Negative	.8000	.41404	15
			Neutral	.8000	.42164	10
			Positive	.9200	.27689	25
			Total	.8600	.35051	50
	Total	Child	Negative	.5000	.57735	4
			Neutral	.9000	.31623	10
			Positive	.8235	.39295	17
			Total	.8065	.40161	31
		Adolescent	Negative	.7273	.46710	11
			Neutral	.8571	.37796	7
			Positive	.9412	.24254	17
			Total	.8571	.35504	35
		Adult	Negative	.8667	.35187	15
			Neutral	1.0000	.00000	4
			Positive	.8182	.39477	22
			Total	.8537	.35784	41
		Total	Negative	.7667	.43018	30
			Neutral	.9048	.30079	21
			Positive	.8571	.35309	56
			Total	.8411	.36728	107
L(1/2)40	Gain First	Child	Negative	.3333	.57735	3
			Neutral	1.0000	.00000	6
			Positive	.7778	.44096	9
			Total	.7778	.42779	18
		Adolescent	Negative	1.0000	.00000	5
			Neutral	.3333	.57735	3
			Positive	.8889	.33333	9
			Total	.8235	.39295	17

	Adult	Negative	.7143	.48795	7
		Neutral	.0000	.00000	2
		Positive	.6154	.50637	13
		Total	.5909	.50324	22
	Total	Negative	.7333	.45774	15
		Neutral	.6364	.50452	11
		Positive	.7419	.44480	31
		Total	.7193	.45334	57
Loss First	Child	Negative	1.0000	.	1
		Neutral	.7500	.50000	4
		Positive	.8750	.35355	8
		Total	.8462	.37553	13
	Adolescent	Negative	.6667	.51640	6
		Neutral	.5000	.57735	4
		Positive	.6250	.51755	8
		Total	.6111	.50163	18
	Adult	Negative	.6250	.51755	8
		Neutral	1.0000	.00000	2
		Positive	.6667	.50000	9
		Total	.6842	.47757	19
	Total	Negative	.6667	.48795	15
		Neutral	.7000	.48305	10
		Positive	.7200	.45826	25
		Total	.7000	.46291	50
Total	Child	Negative	.5000	.57735	4
		Neutral	.9000	.31623	10
		Positive	.8235	.39295	17
		Total	.8065	.40161	31
	Adolescent	Negative	.8182	.40452	11
		Neutral	.4286	.53452	7
		Positive	.7647	.43724	17

			Total	.7143	.45835	35
		Adult	Negative	.6667	.48795	15
			Neutral	.5000	.57735	4
			Positive	.6364	.49237	22
			Total	.6341	.48765	41
		Total	Negative	.7000	.46609	30
			Neutral	.6667	.48305	21
			Positive	.7321	.44685	56
			Total	.7103	.45577	107
L(1/2)300	Gain First	Child	Negative	1.0000	.00000	3
			Neutral	1.0000	.00000	6
			Positive	.7778	.44096	9
			Total	.8889	.32338	18
		Adolescent	Negative	1.0000	.00000	5
			Neutral	.0000	.00000	3
			Positive	.7778	.44096	9
			Total	.7059	.46967	17
		Adult	Negative	.4286	.53452	7
			Neutral	.5000	.70711	2
			Positive	.2308	.43853	13
			Total	.3182	.47673	22
		Total	Negative	.7333	.45774	15
			Neutral	.6364	.50452	11
			Positive	.5484	.50588	31
			Total	.6140	.49115	57
	Loss First	Child	Negative	.0000	.	1
			Neutral	.7500	.50000	4
			Positive	.7500	.46291	8
			Total	.6923	.48038	13
		Adolescent	Negative	.1667	.40825	6
			Neutral	.7500	.50000	4

			Positive	.3750	.51755	8
			Total	.3889	.50163	18
		Adult	Negative	.5000	.53452	8
			Neutral	.5000	.70711	2
			Positive	.5556	.52705	9
			Total	.5263	.51299	19
		Total	Negative	.3333	.48795	15
			Neutral	.7000	.48305	10
			Positive	.5600	.50662	25
			Total	.5200	.50467	50
	Total	Child	Negative	.7500	.50000	4
			Neutral	.9000	.31623	10
			Positive	.7647	.43724	17
			Total	.8065	.40161	31
		Adolescent	Negative	.5455	.52223	11
			Neutral	.4286	.53452	7
			Positive	.5882	.50730	17
			Total	.5429	.50543	35
		Adult	Negative	.4667	.51640	15
			Neutral	.5000	.57735	4
			Positive	.3636	.49237	22
			Total	.4146	.49878	41
		Total	Negative	.5333	.50742	30
			Neutral	.6667	.48305	21
			Positive	.5536	.50162	56
			Total	.5701	.49739	107
L(1/3)15	Gain First	Child	Negative	.6667	.57735	3
			Neutral	.5000	.54772	6
			Positive	.7778	.44096	9
			Total	.6667	.48507	18
		Adolescent	Negative	.6000	.54772	5

			Neutral	.6667	.57735	3
			Positive	.6667	.50000	9
			Total	.6471	.49259	17
		Adult	Negative	.8571	.37796	7
			Neutral	1.0000	.00000	2
			Positive	.6923	.48038	13
			Total	.7727	.42893	22
		Total	Negative	.7333	.45774	15
			Neutral	.6364	.50452	11
			Positive	.7097	.46141	31
			Total	.7018	.46155	57
	Loss First	Child	Negative	.0000	.	1
			Neutral	.7500	.50000	4
			Positive	.7500	.46291	8
			Total	.6923	.48038	13
		Adolescent	Negative	.1667	.40825	6
			Neutral	.7500	.50000	4
			Positive	.7500	.46291	8
			Total	.5556	.51131	18
		Adult	Negative	.8750	.35355	8
			Neutral	1.0000	.00000	2
			Positive	.8889	.33333	9
			Total	.8947	.31530	19
		Total	Negative	.5333	.51640	15
			Neutral	.8000	.42164	10
			Positive	.8000	.40825	25
			Total	.7200	.45356	50
	Total	Child	Negative	.5000	.57735	4
			Neutral	.6000	.51640	10
			Positive	.7647	.43724	17
			Total	.6774	.47519	31

		Adolescent	Negative	.3636	.50452	11
			Neutral	.7143	.48795	7
			Positive	.7059	.46967	17
			Total	.6000	.49705	35
		Adult	Negative	.8667	.35187	15
			Neutral	1.0000	.00000	4
			Positive	.7727	.42893	22
			Total	.8293	.38095	41
		Total	Negative	.6333	.49013	30
			Neutral	.7143	.46291	21
			Positive	.7500	.43693	56
			Total	.7103	.45577	107
L(1/3)60	Gain First	Child	Negative	.3333	.57735	3
			Neutral	1.0000	.00000	6
			Positive	.6667	.50000	9
			Total	.7222	.46089	18
		Adolescent	Negative	.2000	.44721	5
			Neutral	.6667	.57735	3
			Positive	.4444	.52705	9
			Total	.4118	.50730	17
		Adult	Negative	.4286	.53452	7
			Neutral	.5000	.70711	2
			Positive	.7692	.43853	13
			Total	.6364	.49237	22
		Total	Negative	.3333	.48795	15
			Neutral	.8182	.40452	11
			Positive	.6452	.48637	31
			Total	.5965	.49496	57
	Loss First	Child	Negative	1.0000	.	1
			Neutral	.7500	.50000	4
			Positive	.8750	.35355	8

			Total	.8462	.37553	13
		Adolescent	Negative	.6667	.51640	6
			Neutral	.2500	.50000	4
			Positive	.3750	.51755	8
			Total	.4444	.51131	18
		Adult	Negative	.6250	.51755	8
			Neutral	1.0000	.00000	2
			Positive	.4444	.52705	9
			Total	.5789	.50726	19
		Total	Negative	.6667	.48795	15
			Neutral	.6000	.51640	10
			Positive	.5600	.50662	25
			Total	.6000	.49487	50
	Total	Child	Negative	.5000	.57735	4
			Neutral	.9000	.31623	10
			Positive	.7647	.43724	17
			Total	.7742	.42502	31
		Adolescent	Negative	.4545	.52223	11
			Neutral	.4286	.53452	7
			Positive	.4118	.50730	17
			Total	.4286	.50210	35
		Adult	Negative	.5333	.51640	15
			Neutral	.7500	.50000	4
			Positive	.6364	.49237	22
			Total	.6098	.49386	41
		Total	Negative	.5000	.50855	30
			Neutral	.7143	.46291	21
			Positive	.6071	.49281	56
			Total	.5981	.49258	107
L(1/3)450	Gain First	Child	Negative	.6667	.57735	3
			Neutral	1.0000	.00000	6

			Positive	.7778	.44096	9
			Total	.8333	.38348	18
		Adolescent	Negative	.4000	.54772	5
			Neutral	.3333	.57735	3
			Positive	.4444	.52705	9
			Total	.4118	.50730	17
		Adult	Negative	.1429	.37796	7
			Neutral	.0000	.00000	2
			Positive	.4615	.51887	13
			Total	.3182	.47673	22
		Total	Negative	.3333	.48795	15
			Neutral	.6364	.50452	11
			Positive	.5484	.50588	31
			Total	.5088	.50437	57
	Loss First	Child	Negative	.0000	.	1
			Neutral	.2500	.50000	4
			Positive	.8750	.35355	8
			Total	.6154	.50637	13
		Adolescent	Negative	.6667	.51640	6
			Neutral	.7500	.50000	4
			Positive	.3750	.51755	8
			Total	.5556	.51131	18
		Adult	Negative	.5000	.53452	8
			Neutral	.5000	.70711	2
			Positive	.4444	.52705	9
			Total	.4737	.51299	19
		Total	Negative	.5333	.51640	15
			Neutral	.5000	.52705	10
			Positive	.5600	.50662	25
			Total	.5400	.50346	50
	Total	Child	Negative	.5000	.57735	4

			Neutral	.7000	.48305	10
			Positive	.8235	.39295	17
			Total	.7419	.44480	31
		Adolescent	Negative	.5455	.52223	11
			Neutral	.5714	.53452	7
			Positive	.4118	.50730	17
			Total	.4857	.50709	35
		Adult	Negative	.3333	.48795	15
			Neutral	.2500	.50000	4
			Positive	.4545	.50965	22
			Total	.3902	.49386	41
		Total	Negative	.4333	.50401	30
			Neutral	.5714	.50709	21
			Positive	.5536	.50162	56
			Total	.5234	.50180	107
L(1/4)20	Gain First	Child	Negative	.3333	.57735	3
			Neutral	1.0000	.00000	6
			Positive	.6667	.50000	9
			Total	.7222	.46089	18
		Adolescent	Negative	.6000	.54772	5
			Neutral	1.0000	.00000	3
			Positive	.7778	.44096	9
			Total	.7647	.43724	17
		Adult	Negative	.5714	.53452	7
			Neutral	1.0000	.00000	2
			Positive	.6154	.50637	13
			Total	.6364	.49237	22
		Total	Negative	.5333	.51640	15
			Neutral	1.0000	.00000	11
			Positive	.6774	.47519	31
			Total	.7018	.46155	57

Loss First	Child	Negative	1.0000	.	1
		Neutral	.2500	.50000	4
		Positive	.7500	.46291	8
		Total	.6154	.50637	13
	Adolescent	Negative	.1667	.40825	6
		Neutral	.5000	.57735	4
		Positive	.8750	.35355	8
		Total	.5556	.51131	18
	Adult	Negative	.7500	.46291	8
		Neutral	1.0000	.00000	2
		Positive	.8889	.33333	9
		Total	.8421	.37463	19
	Total	Negative	.5333	.51640	15
		Neutral	.5000	.52705	10
		Positive	.8400	.37417	25
		Total	.6800	.47121	50
Total	Child	Negative	.5000	.57735	4
		Neutral	.7000	.48305	10
		Positive	.7059	.46967	17
		Total	.6774	.47519	31
	Adolescent	Negative	.3636	.50452	11
		Neutral	.7143	.48795	7
		Positive	.8235	.39295	17
		Total	.6571	.48159	35
	Adult	Negative	.6667	.48795	15
		Neutral	1.0000	.00000	4
		Positive	.7273	.45584	22
		Total	.7317	.44857	41
	Total	Negative	.5333	.50742	30
		Neutral	.7619	.43644	21
		Positive	.7500	.43693	56

			Total	.6916	.46401	107
L(1/4)80	Gain First	Child	Negative	.3333	.57735	3
			Neutral	.5000	.54772	6
			Positive	.6667	.50000	9
			Total	.5556	.51131	18
		Adolescent	Negative	.0000	.00000	5
			Neutral	.3333	.57735	3
			Positive	.6667	.50000	9
			Total	.4118	.50730	17
		Adult	Negative	.4286	.53452	7
			Neutral	1.0000	.00000	2
			Positive	.5385	.51887	13
			Total	.5455	.50965	22
		Total	Negative	.2667	.45774	15
			Neutral	.5455	.52223	11
			Positive	.6129	.49514	31
			Total	.5088	.50437	57
	Loss First	Child	Negative	.0000	.	1
			Neutral	.5000	.57735	4
			Positive	.8750	.35355	8
			Total	.6923	.48038	13
		Adolescent	Negative	.1667	.40825	6
			Neutral	.5000	.57735	4
			Positive	.3750	.51755	8
			Total	.3333	.48507	18
		Adult	Negative	.6250	.51755	8
			Neutral	1.0000	.00000	2
			Positive	.5556	.52705	9
			Total	.6316	.49559	19
		Total	Negative	.4000	.50709	15
			Neutral	.6000	.51640	10

			Positive	.6000	.50000	25
			Total	.5400	.50346	50
	Total	Child	Negative	.2500	.50000	4
			Neutral	.5000	.52705	10
			Positive	.7647	.43724	17
			Total	.6129	.49514	31
		Adolescent	Negative	.0909	.30151	11
			Neutral	.4286	.53452	7
			Positive	.5294	.51450	17
			Total	.3714	.49024	35
		Adult	Negative	.5333	.51640	15
			Neutral	1.0000	.00000	4
			Positive	.5455	.50965	22
			Total	.5854	.49878	41
		Total	Negative	.3333	.47946	30
			Neutral	.5714	.50709	21
			Positive	.6071	.49281	56
			Total	.5234	.50180	107
L(1/4)600	Gain First	Child	Negative	1.0000	.00000	3
			Neutral	1.0000	.00000	6
			Positive	.6667	.50000	9
			Total	.8333	.38348	18
		Adolescent	Negative	.4000	.54772	5
			Neutral	.3333	.57735	3
			Positive	.4444	.52705	9
			Total	.4118	.50730	17
		Adult	Negative	.1429	.37796	7
			Neutral	.0000	.00000	2
			Positive	.1538	.37553	13
			Total	.1364	.35125	22
		Total	Negative	.4000	.50709	15

		Neutral	.6364	.50452	11
		Positive	.3871	.49514	31
		Total	.4386	.50063	57
Loss First	Child	Negative	.0000	.	1
		Neutral	.5000	.57735	4
		Positive	.6250	.51755	8
		Total	.5385	.51887	13
	Adolescent	Negative	.6667	.51640	6
		Neutral	.2500	.50000	4
		Positive	.6250	.51755	8
		Total	.5556	.51131	18
	Adult	Negative	.3750	.51755	8
		Neutral	.5000	.70711	2
		Positive	.1111	.33333	9
		Total	.2632	.45241	19
	Total	Negative	.4667	.51640	15
		Neutral	.4000	.51640	10
		Positive	.4400	.50662	25
		Total	.4400	.50143	50
Total	Child	Negative	.7500	.50000	4
		Neutral	.8000	.42164	10
		Positive	.6471	.49259	17
		Total	.7097	.46141	31
	Adolescent	Negative	.5455	.52223	11
		Neutral	.2857	.48795	7
		Positive	.5294	.51450	17
		Total	.4857	.50709	35
	Adult	Negative	.2667	.45774	15
		Neutral	.2500	.50000	4
		Positive	.1364	.35125	22
		Total	.1951	.40122	41

	Total	Negative	.4333	.50401	30
		Neutral	.5238	.51177	21
		Positive	.4107	.49642	56
		Total	.4393	.49863	107

Tests of Within-Subjects Effects

Measure:choice

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
frame	Sphericity Assumed	.499	1	.499	1.983	.163	.022
	Greenhouse-Geisser	.499	1.000	.499	1.983	.163	.022
	Huynh-Feldt	.499	1.000	.499	1.983	.163	.022
	Lower-bound	.499	1.000	.499	1.983	.163	.022
frame * Order	Sphericity Assumed	.198	1	.198	.786	.378	.009
	Greenhouse-Geisser	.198	1.000	.198	.786	.378	.009
	Huynh-Feldt	.198	1.000	.198	.786	.378	.009
	Lower-bound	.198	1.000	.198	.786	.378	.009
frame * Age_Group	Sphericity Assumed	1.391	2	.695	2.764	.068	.058
	Greenhouse-Geisser	1.391	2.000	.695	2.764	.068	.058
	Huynh-Feldt	1.391	2.000	.695	2.764	.068	.058
	Lower-bound	1.391	2.000	.695	2.764	.068	.058
frame * Mood_Categorized	Sphericity Assumed	1.212	2	.606	2.410	.096	.051
	Greenhouse-Geisser	1.212	2.000	.606	2.410	.096	.051

	Huynh-Feldt	1.212	2.000	.606	2.410	.096	.051
	Lower-bound	1.212	2.000	.606	2.410	.096	.051
frame * Order * Age_Group	Sphericity Assumed	.951	2	.475	1.890	.157	.041
	Greenhouse-Geisser	.951	2.000	.475	1.890	.157	.041
	Huynh-Feldt	.951	2.000	.475	1.890	.157	.041
	Lower-bound	.951	2.000	.475	1.890	.157	.041
frame * Order * Mood_Categorized	Sphericity Assumed	.140	2	.070	.278	.758	.006
	Greenhouse-Geisser	.140	2.000	.070	.278	.758	.006
	Huynh-Feldt	.140	2.000	.070	.278	.758	.006
	Lower-bound	.140	2.000	.070	.278	.758	.006
frame * Age_Group * Mood_Categorized	Sphericity Assumed	1.784	4	.446	1.773	.141	.074
	Greenhouse-Geisser	1.784	4.000	.446	1.773	.141	.074
	Huynh-Feldt	1.784	4.000	.446	1.773	.141	.074
	Lower-bound	1.784	4.000	.446	1.773	.141	.074
frame * Order * Age_Group * Mood_Categorized	Sphericity Assumed	2.440	4	.610	2.425	.054	.098
	Greenhouse-Geisser	2.440	4.000	.610	2.425	.054	.098
	Huynh-Feldt	2.440	4.000	.610	2.425	.054	.098
	Lower-bound	2.440	4.000	.610	2.425	.054	.098
Error(frame)	Sphericity Assumed	22.385	89	.252			
	Greenhouse-Geisser	22.385	89.000	.252			
	Huynh-Feldt	22.385	89.000	.252			
	Lower-bound	22.385	89.000	.252			

risk	Sphericity Assumed	2.802	2	1.401	5.903	.003	.062
	Greenhouse-Geisser	2.802	1.797	1.559	5.903	.005	.062
	Huynh-Feldt	2.802	2.000	1.401	5.903	.003	.062
	Lower-bound	2.802	1.000	2.802	5.903	.017	.062
risk * Order	Sphericity Assumed	.289	2	.145	.609	.545	.007
	Greenhouse-Geisser	.289	1.797	.161	.609	.528	.007
	Huynh-Feldt	.289	2.000	.145	.609	.545	.007
	Lower-bound	.289	1.000	.289	.609	.437	.007
risk * Age_Group	Sphericity Assumed	.685	4	.171	.722	.578	.016
	Greenhouse-Geisser	.685	3.594	.191	.722	.564	.016
	Huynh-Feldt	.685	4.000	.171	.722	.578	.016
	Lower-bound	.685	2.000	.343	.722	.489	.016
risk * Mood_Categorized	Sphericity Assumed	.393	4	.098	.414	.798	.009
	Greenhouse-Geisser	.393	3.594	.109	.414	.778	.009
	Huynh-Feldt	.393	4.000	.098	.414	.798	.009
	Lower-bound	.393	2.000	.197	.414	.662	.009
risk * Order * Age_Group	Sphericity Assumed	.347	4	.087	.365	.833	.008
	Greenhouse-Geisser	.347	3.594	.096	.365	.813	.008
	Huynh-Feldt	.347	4.000	.087	.365	.833	.008
	Lower-bound	.347	2.000	.173	.365	.695	.008
risk * Order * Mood_Categorized	Sphericity Assumed	.428	4	.107	.450	.772	.010
	Greenhouse-Geisser	.428	3.594	.119	.450	.752	.010

	Huynh-Feldt	.428	4.000	.107	.450	.772	.010
	Lower-bound	.428	2.000	.214	.450	.639	.010
risk * Age_Group * Mood_Categorized	Sphericity Assumed	1.091	8	.136	.575	.798	.025
	Greenhouse-Geisser	1.091	7.189	.152	.575	.780	.025
	Huynh-Feldt	1.091	8.000	.136	.575	.798	.025
	Lower-bound	1.091	4.000	.273	.575	.682	.025
risk * Order * Age_Group * Mood_Categorized	Sphericity Assumed	1.341	8	.168	.706	.686	.031
	Greenhouse-Geisser	1.341	7.189	.186	.706	.671	.031
	Huynh-Feldt	1.341	8.000	.168	.706	.686	.031
	Lower-bound	1.341	4.000	.335	.706	.590	.031
Error(risk)	Sphericity Assumed	42.250	178	.237			
	Greenhouse-Geisser	42.250	159.952	.264			
	Huynh-Feldt	42.250	178.000	.237			
	Lower-bound	42.250	89.000	.475			
reward	Sphericity Assumed	8.033	2	4.017	15.712	.000	.150
	Greenhouse-Geisser	8.033	1.850	4.342	15.712	.000	.150
	Huynh-Feldt	8.033	2.000	4.017	15.712	.000	.150
	Lower-bound	8.033	1.000	8.033	15.712	.000	.150
reward * Order	Sphericity Assumed	2.012	2	1.006	3.936	.021	.042
	Greenhouse-Geisser	2.012	1.850	1.088	3.936	.024	.042
	Huynh-Feldt	2.012	2.000	1.006	3.936	.021	.042
	Lower-bound	2.012	1.000	2.012	3.936	.050	.042

reward * Age_Group	Sphericity Assumed	10.379	4	2.595	10.150	.000	.186
	Greenhouse-Geisser	10.379	3.701	2.805	10.150	.000	.186
	Huynh-Feldt	10.379	4.000	2.595	10.150	.000	.186
	Lower-bound	10.379	2.000	5.190	10.150	.000	.186
reward * Mood_Categorized	Sphericity Assumed	.737	4	.184	.721	.579	.016
	Greenhouse-Geisser	.737	3.701	.199	.721	.569	.016
	Huynh-Feldt	.737	4.000	.184	.721	.579	.016
	Lower-bound	.737	2.000	.368	.721	.489	.016
reward * Order * Age_Group	Sphericity Assumed	2.957	4	.739	2.892	.024	.061
	Greenhouse-Geisser	2.957	3.701	.799	2.892	.027	.061
	Huynh-Feldt	2.957	4.000	.739	2.892	.024	.061
	Lower-bound	2.957	2.000	1.478	2.892	.061	.061
reward * Order * Mood_Categorized	Sphericity Assumed	3.303	4	.826	3.230	.014	.068
	Greenhouse-Geisser	3.303	3.701	.892	3.230	.016	.068
	Huynh-Feldt	3.303	4.000	.826	3.230	.014	.068
	Lower-bound	3.303	2.000	1.651	3.230	.044	.068
reward * Age_Group * Mood_Categorized	Sphericity Assumed	1.758	8	.220	.860	.552	.037
	Greenhouse-Geisser	1.758	7.401	.237	.860	.545	.037
	Huynh-Feldt	1.758	8.000	.220	.860	.552	.037
	Lower-bound	1.758	4.000	.439	.860	.492	.037
reward * Order * Age_Group * Mood_Categorized	Sphericity Assumed	2.666	8	.333	1.303	.244	.055
	Greenhouse-Geisser	2.666	7.401	.360	1.303	.249	.055

	Huynh-Feldt	2.666	8.000	.333	1.303	.244	.055
	Lower-bound	2.666	4.000	.666	1.303	.275	.055
Error(reward)	Sphericity Assumed	45.503	178	.256			
	Greenhouse-Geisser	45.503	164.682	.276			
	Huynh-Feldt	45.503	178.000	.256			
	Lower-bound	45.503	89.000	.511			
frame * risk	Sphericity Assumed	.303	2	.151	1.111	.332	.012
	Greenhouse-Geisser	.303	1.980	.153	1.111	.331	.012
	Huynh-Feldt	.303	2.000	.151	1.111	.332	.012
	Lower-bound	.303	1.000	.303	1.111	.295	.012
frame * risk * Order	Sphericity Assumed	.497	2	.248	1.823	.165	.020
	Greenhouse-Geisser	.497	1.980	.251	1.823	.165	.020
	Huynh-Feldt	.497	2.000	.248	1.823	.165	.020
	Lower-bound	.497	1.000	.497	1.823	.180	.020
frame * risk * Age_Group	Sphericity Assumed	.322	4	.080	.590	.670	.013
	Greenhouse-Geisser	.322	3.961	.081	.590	.669	.013
	Huynh-Feldt	.322	4.000	.080	.590	.670	.013
	Lower-bound	.322	2.000	.161	.590	.557	.013
frame * risk * Mood_Categorized	Sphericity Assumed	1.475	4	.369	2.706	.032	.057
	Greenhouse-Geisser	1.475	3.961	.372	2.706	.032	.057
	Huynh-Feldt	1.475	4.000	.369	2.706	.032	.057
	Lower-bound	1.475	2.000	.738	2.706	.072	.057

frame * risk * Order * Age_Group	Sphericity Assumed	.343	4	.086	.629	.642	.014
	Greenhouse-Geisser	.343	3.961	.087	.629	.641	.014
	Huynh-Feldt	.343	4.000	.086	.629	.642	.014
	Lower-bound	.343	2.000	.172	.629	.535	.014
frame * risk * Order * Mood_Categorized	Sphericity Assumed	.251	4	.063	.460	.765	.010
	Greenhouse-Geisser	.251	3.961	.063	.460	.763	.010
	Huynh-Feldt	.251	4.000	.063	.460	.765	.010
	Lower-bound	.251	2.000	.125	.460	.633	.010
frame * risk * Age_Group * Mood_Categorized	Sphericity Assumed	2.025	8	.253	1.857	.069	.077
	Greenhouse-Geisser	2.025	7.922	.256	1.857	.070	.077
	Huynh-Feldt	2.025	8.000	.253	1.857	.069	.077
	Lower-bound	2.025	4.000	.506	1.857	.125	.077
frame * risk * Order * Age_Group * Mood_Categorized	Sphericity Assumed	2.307	8	.288	2.115	.037	.087
	Greenhouse-Geisser	2.307	7.922	.291	2.115	.037	.087
	Huynh-Feldt	2.307	8.000	.288	2.115	.037	.087
	Lower-bound	2.307	4.000	.577	2.115	.085	.087
Error(frame*risk)	Sphericity Assumed	24.265	178	.136			
	Greenhouse-Geisser	24.265	176.264	.138			
	Huynh-Feldt	24.265	178.000	.136			
	Lower-bound	24.265	89.000	.273			
frame * reward	Sphericity Assumed	.845	2	.422	1.815	.166	.020
	Greenhouse-Geisser	.845	1.973	.428	1.815	.166	.020

	Huynh-Feldt	.845	2.000	.422	1.815	.166	.020
	Lower-bound	.845	1.000	.845	1.815	.181	.020
frame * reward * Order	Sphericity Assumed	.371	2	.185	.796	.453	.009
	Greenhouse-Geisser	.371	1.973	.188	.796	.451	.009
	Huynh-Feldt	.371	2.000	.185	.796	.453	.009
	Lower-bound	.371	1.000	.371	.796	.375	.009
frame * reward * Age_Group	Sphericity Assumed	1.271	4	.318	1.365	.248	.030
	Greenhouse-Geisser	1.271	3.946	.322	1.365	.248	.030
	Huynh-Feldt	1.271	4.000	.318	1.365	.248	.030
	Lower-bound	1.271	2.000	.635	1.365	.261	.030
frame * reward * Mood_Categorized	Sphericity Assumed	.105	4	.026	.113	.978	.003
	Greenhouse-Geisser	.105	3.946	.027	.113	.977	.003
	Huynh-Feldt	.105	4.000	.026	.113	.978	.003
	Lower-bound	.105	2.000	.052	.113	.894	.003
frame * reward * Order * Age_Group	Sphericity Assumed	.713	4	.178	.766	.548	.017
	Greenhouse-Geisser	.713	3.946	.181	.766	.547	.017
	Huynh-Feldt	.713	4.000	.178	.766	.548	.017
	Lower-bound	.713	2.000	.357	.766	.468	.017
frame * reward * Order * Mood_Categorized	Sphericity Assumed	.230	4	.057	.247	.911	.006
	Greenhouse-Geisser	.230	3.946	.058	.247	.909	.006
	Huynh-Feldt	.230	4.000	.057	.247	.911	.006
	Lower-bound	.230	2.000	.115	.247	.782	.006

frame * reward * Age_Group * Mood_Categorized	Sphericity Assumed	2.308	8	.288	1.240	.279	.053
	Greenhouse-Geisser	2.308	7.891	.292	1.240	.279	.053
	Huynh-Feldt	2.308	8.000	.288	1.240	.279	.053
	Lower-bound	2.308	4.000	.577	1.240	.300	.053
frame * reward * Order * Age_Group * Mood_Categorized	Sphericity Assumed	1.019	8	.127	.547	.819	.024
	Greenhouse-Geisser	1.019	7.891	.129	.547	.817	.024
	Huynh-Feldt	1.019	8.000	.127	.547	.819	.024
	Lower-bound	1.019	4.000	.255	.547	.701	.024
Error(frame*reward)	Sphericity Assumed	41.424	178	.233			
	Greenhouse-Geisser	41.424	175.579	.236			
	Huynh-Feldt	41.424	178.000	.233			
	Lower-bound	41.424	89.000	.465			
risk * reward	Sphericity Assumed	.917	4	.229	1.503	.201	.017
	Greenhouse-Geisser	.917	3.594	.255	1.503	.206	.017
	Huynh-Feldt	.917	4.000	.229	1.503	.201	.017
	Lower-bound	.917	1.000	.917	1.503	.223	.017
risk * reward * Order	Sphericity Assumed	.622	4	.155	1.019	.397	.011
	Greenhouse-Geisser	.622	3.594	.173	1.019	.393	.011
	Huynh-Feldt	.622	4.000	.155	1.019	.397	.011
	Lower-bound	.622	1.000	.622	1.019	.315	.011
risk * reward * Age_Group	Sphericity Assumed	2.124	8	.265	1.741	.088	.038
	Greenhouse-Geisser	2.124	7.188	.295	1.741	.097	.038

	Huynh-Feldt	2.124	8.000	.265	1.741	.088	.038
	Lower-bound	2.124	2.000	1.062	1.741	.181	.038
risk * reward * Mood_Categorized	Sphericity Assumed	1.355	8	.169	1.111	.355	.024
	Greenhouse-Geisser	1.355	7.188	.189	1.111	.356	.024
	Huynh-Feldt	1.355	8.000	.169	1.111	.355	.024
	Lower-bound	1.355	2.000	.678	1.111	.334	.024
risk * reward * Order * Age_Group	Sphericity Assumed	.647	8	.081	.531	.833	.012
	Greenhouse-Geisser	.647	7.188	.090	.531	.816	.012
	Huynh-Feldt	.647	8.000	.081	.531	.833	.012
	Lower-bound	.647	2.000	.324	.531	.590	.012
risk * reward * Order * Mood_Categorized	Sphericity Assumed	2.083	8	.260	1.707	.095	.037
	Greenhouse-Geisser	2.083	7.188	.290	1.707	.104	.037
	Huynh-Feldt	2.083	8.000	.260	1.707	.095	.037
	Lower-bound	2.083	2.000	1.042	1.707	.187	.037
risk * reward * Age_Group * Mood_Categorized	Sphericity Assumed	2.594	16	.162	1.063	.389	.046
	Greenhouse-Geisser	2.594	14.376	.180	1.063	.391	.046
	Huynh-Feldt	2.594	16.000	.162	1.063	.389	.046
	Lower-bound	2.594	4.000	.649	1.063	.380	.046
risk * reward * Order * Age_Group * Mood_Categorized	Sphericity Assumed	3.778	16	.236	1.548	.081	.065
	Greenhouse-Geisser	3.778	14.376	.263	1.548	.091	.065
	Huynh-Feldt	3.778	16.000	.236	1.548	.081	.065
	Lower-bound	3.778	4.000	.944	1.548	.195	.065

Error(risk*reward)	Sphericity Assumed	54.298	356	.153			
	Greenhouse-Geisser	54.298	319.874	.170			
	Huynh-Feldt	54.298	356.000	.153			
	Lower-bound	54.298	89.000	.610			
frame * risk * reward	Sphericity Assumed	.266	4	.066	.495	.740	.006
	Greenhouse-Geisser	.266	3.801	.070	.495	.730	.006
	Huynh-Feldt	.266	4.000	.066	.495	.740	.006
	Lower-bound	.266	1.000	.266	.495	.484	.006
frame * risk * reward * Order	Sphericity Assumed	.102	4	.026	.190	.944	.002
	Greenhouse-Geisser	.102	3.801	.027	.190	.937	.002
	Huynh-Feldt	.102	4.000	.026	.190	.944	.002
	Lower-bound	.102	1.000	.102	.190	.664	.002
frame * risk * reward * Age_Group	Sphericity Assumed	1.401	8	.175	1.303	.241	.028
	Greenhouse-Geisser	1.401	7.602	.184	1.303	.244	.028
	Huynh-Feldt	1.401	8.000	.175	1.303	.241	.028
	Lower-bound	1.401	2.000	.700	1.303	.277	.028
frame * risk * reward * Mood_Categorized	Sphericity Assumed	.956	8	.119	.889	.526	.020
	Greenhouse-Geisser	.956	7.602	.126	.889	.522	.020
	Huynh-Feldt	.956	8.000	.119	.889	.526	.020
	Lower-bound	.956	2.000	.478	.889	.415	.020
frame * risk * reward * Order * Age_Group	Sphericity Assumed	1.384	8	.173	1.287	.249	.028
	Greenhouse-Geisser	1.384	7.602	.182	1.287	.252	.028

	Huynh-Feldt	1.384	8.000	.173	1.287	.249	.028
	Lower-bound	1.384	2.000	.692	1.287	.281	.028
frame * risk * reward * Order * Mood_Categorized	Sphericity Assumed	1.361	8	.170	1.265	.261	.028
	Greenhouse-Geisser	1.361	7.602	.179	1.265	.263	.028
	Huynh-Feldt	1.361	8.000	.170	1.265	.261	.028
	Lower-bound	1.361	2.000	.680	1.265	.287	.028
frame * risk * reward * Age_Group * Mood_Categorized	Sphericity Assumed	2.210	16	.138	1.028	.426	.044
	Greenhouse-Geisser	2.210	15.203	.145	1.028	.426	.044
	Huynh-Feldt	2.210	16.000	.138	1.028	.426	.044
	Lower-bound	2.210	4.000	.553	1.028	.397	.044
frame * risk * reward * Order * Age_Group * Mood_Categorized	Sphericity Assumed	2.878	16	.180	1.338	.171	.057
	Greenhouse-Geisser	2.878	15.203	.189	1.338	.176	.057
	Huynh-Feldt	2.878	16.000	.180	1.338	.171	.057
	Lower-bound	2.878	4.000	.720	1.338	.262	.057
Error(frame*risk*reward)	Sphericity Assumed	47.854	356	.134			
	Greenhouse-Geisser	47.854	338.269	.141			
	Huynh-Feldt	47.854	356.000	.134			
	Lower-bound	47.854	89.000	.538			

Tests of Between-Subjects Effects

Measure:choice

Transformed Variable:Average

Source	Type III Sum of Squares	df	Mean Square	F
Intercept	442.241	1	442.241	560.822
Order	.203	1	.203	.258

Age_Group	4.877	2	2.438	3.092
Mood_Categorized	1.617	2	.808	1.025
Order * Age_Group	1.083	2	.542	.687
Order * Mood_Categorized	.070	2	.035	.044
Age_Group * Mood_Categorized	1.873	4	.468	.594
Order * Age_Group * Mood_Categorized	3.496	4	.874	1.109
Error	70.182	89	.789	

Tests of Between-Subjects Effects

Measure:choice

Transformed Variable:Average

Source	Sig.	Partial Eta Squared
Intercept	.000	.863
Order	.613	.003
Age_Group	.050	.065
Mood_Categorized	.363	.023
Order * Age_Group	.506	.015
Order * Mood_Categorized	.957	.001
Age_Group * Mood_Categorized	.668	.026
Order * Age_Group * Mood_Categorized	.358	.047

APPENDIX E

Descriptives and Summary Tables for Signed Confidence Analysis

Descriptive Statistics

	Age_Group	Order	Condition	Mean	Std. Deviation	N
C125tran	Child	Gain First	Neutral	-2.0000	5.44059	6
			Positive	-3.0000	5.24404	5
			Negative	-3.4286	4.92805	7
			Total	-2.8333	4.91397	18
		Loss First	Neutral	-3.5000	4.72582	4
			Positive	-3.0000	5.70088	5
			Negative	-1.2500	5.43906	4
			Total	-2.6154	4.97558	13
		Total	Neutral	-2.6000	4.94862	10
			Positive	-3.0000	5.16398	10
			Negative	-2.6364	4.96533	11
			Total	-2.7419	4.85776	31
	Adolescent	Gain First	Neutral	-1.0000	6.12372	5
			Positive	-4.2857	3.63842	7
			Negative	1.6000	6.54217	5
			Total	-1.5882	5.61314	17
		Loss First	Neutral	-.6250	6.13974	8
			Positive	-1.3333	7.37111	3
			Negative	-1.7143	5.70714	7
			Total	-1.1667	5.80314	18
		Total	Neutral	-.7692	5.87585	13
			Positive	-3.4000	4.78888	10
			Negative	-.3333	6.02017	12
			Total	-1.3714	5.63125	35
	Adult	Gain First	Neutral	-3.2857	3.81725	7

			Positive	-2.8750	3.39905	8
			Negative	-1.5714	5.74042	7
			Total	-2.5909	4.23881	22
		Loss First	Neutral	-2.8571	4.45079	7
			Positive	-4.8333	1.16905	6
			Negative	-2.1667	5.38207	6
			Total	-3.2632	4.03928	19
		Total	Neutral	-3.0714	3.98968	14
			Positive	-3.7143	2.78536	14
			Negative	-1.8462	5.35173	13
			Total	-2.9024	4.10977	41
	Total	Gain First	Neutral	-2.2222	4.85744	18
			Positive	-3.4000	3.83062	20
			Negative	-1.4211	5.71854	19
			Total	-2.3684	4.83156	57
		Loss First	Neutral	-2.0526	5.15831	19
			Positive	-3.4286	4.56937	14
			Negative	-1.7647	5.19049	17
			Total	-2.3400	4.95947	50
		Total	Neutral	-2.1351	4.94504	37
			Positive	-3.4118	4.08336	34
			Negative	-1.5833	5.40040	36
			Total	-2.3551	4.86856	107
C1220tran	Child	Gain First	Neutral	.0000	4.42719	6
			Positive	-5.0000	1.58114	5
			Negative	-1.4286	6.18755	7
			Total	-1.9444	4.90465	18
		Loss First	Neutral	-3.0000	5.47723	4
			Positive	-6.0000	1.00000	5
			Negative	-2.7500	6.65207	4

		Total	-4.0769	4.62712	13
	Total	Neutral	-1.2000	4.82586	10
		Positive	-5.5000	1.35401	10
		Negative	-1.9091	6.05730	11
		Total	-2.8387	4.83113	31
Adolescent	Gain First	Neutral	-1.4000	6.06630	5
		Positive	-4.7143	2.13809	7
		Negative	1.6000	5.59464	5
		Total	-1.8824	5.10982	17
	Loss First	Neutral	-3.2500	4.62138	8
		Positive	-1.3333	7.37111	3
		Negative	.8571	5.58058	7
		Total	-1.3333	5.46648	18
	Total	Neutral	-2.5385	5.05990	13
		Positive	-3.7000	4.21769	10
		Negative	1.1667	5.33996	12
		Total	-1.6000	5.22550	35
Adult	Gain First	Neutral	-.1429	5.24177	7
		Positive	-2.0000	4.14039	8
		Negative	-.2857	5.55921	7
		Total	-.8636	4.81363	22
	Loss First	Neutral	1.8571	4.94734	7
		Positive	1.5000	5.12835	6
		Negative	.8333	6.82398	6
		Total	1.4211	5.34702	19
	Total	Neutral	.8571	5.00549	14
		Positive	-.5000	4.75152	14
		Negative	.2308	5.93231	13
		Total	.1951	5.13429	41
Total	Gain First	Neutral	-.4444	4.94942	18
		Positive	-3.7000	3.21346	20

			Negative	-.2105	5.61327	19
			Total	-1.5088	4.87018	57
		Loss First	Neutral	-1.3158	5.26047	19
			Positive	-1.7857	5.53560	14
			Negative	.0000	6.08276	17
			Total	-1.0000	5.56226	50
		Total	Neutral	-.8919	5.05956	37
			Positive	-2.9118	4.35102	34
			Negative	-.1111	5.75588	36
			Total	-1.2710	5.18628	107
C12150tran	Child	Gain First	Neutral	-3.1667	4.53505	6
			Positive	-4.4000	4.72229	5
			Negative	-4.1429	4.45079	7
			Total	-3.8889	4.30989	18
		Loss First	Neutral	-6.2500	.50000	4
			Positive	-2.2000	5.89067	5
			Negative	-2.2500	5.12348	4
			Total	-3.4615	4.68358	13
		Total	Neutral	-4.4000	3.74759	10
			Positive	-3.3000	5.16505	10
			Negative	-3.4545	4.54673	11
			Total	-3.7097	4.39844	31
	Adolescent	Gain First	Neutral	.2000	6.37966	5
			Positive	-1.0000	5.85947	7
			Negative	-3.6000	5.98331	5
			Total	-1.4118	5.86365	17
		Loss First	Neutral	-1.6250	6.36817	8
			Positive	1.6667	7.57188	3
			Negative	3.8571	3.62531	7
			Total	1.0556	5.89588	18
		Total	Neutral	-.9231	6.17065	13

			Positive	-.2000	6.10646	10
			Negative	.7500	5.91031	12
			Total	-.1429	5.92672	35
	Adult	Gain First	Neutral	2.1429	4.52506	7
			Positive	1.5000	4.56696	8
			Negative	.0000	5.22813	7
			Total	1.2273	4.62840	22
		Loss First	Neutral	4.5714	1.51186	7
			Positive	-.6667	5.04645	6
			Negative	.5000	5.78792	6
			Total	1.6316	4.76341	19
		Total	Neutral	3.3571	3.47756	14
			Positive	.5714	4.71845	14
			Negative	.2308	5.26235	13
			Total	1.4146	4.63668	41
	Total	Gain First	Neutral	-.1667	5.31646	18
			Positive	-.8500	5.37318	20
			Negative	-2.4737	5.24265	19
			Total	-1.1754	5.30540	57
		Loss First	Neutral	-.3158	5.86944	19
			Positive	-.7143	5.60808	14
			Negative	1.2353	5.15424	17
			Total	.1000	5.51158	50
		Total	Neutral	-.2432	5.52974	37
			Positive	-.7941	5.38674	34
			Negative	-.7222	5.45952	36
			Total	-.5794	5.41493	107
C135tran	Child	Gain First	Neutral	5.0000	1.09545	6
			Positive	.0000	6.16441	5
			Negative	-3.7143	4.46148	7
			Total	.2222	5.54718	18

	Loss First	Neutral	-6.2500	.95743	4
		Positive	-1.8000	5.89067	5
		Negative	1.7500	5.85235	4
		Total	-2.0769	5.57467	13
	Total	Neutral	.5000	5.89256	10
		Positive	-.9000	5.76291	10
		Negative	-1.7273	5.46060	11
		Total	-.7419	5.58550	31
Adolescent	Gain First	Neutral	4.6000	5.36656	5
		Positive	-4.1429	1.21499	7
		Negative	2.2000	6.14003	5
		Total	.2941	5.72019	17
	Loss First	Neutral	2.2500	5.75078	8
		Positive	-1.0000	6.24500	3
		Negative	2.5714	4.61364	7
		Total	1.8333	5.23843	18
	Total	Neutral	3.1538	5.50524	13
		Positive	-3.2000	3.45768	10
		Negative	2.4167	5.03548	12
		Total	1.0857	5.45231	35
Adult	Gain First	Neutral	.1429	4.94734	7
		Positive	-.7500	4.39968	8
		Negative	-1.4286	4.82553	7
		Total	-.6818	4.52913	22
	Loss First	Neutral	-.7143	4.49868	7
		Positive	-4.8333	.75277	6
		Negative	-5.1667	1.60208	6
		Total	-3.4211	3.48514	19
	Total	Neutral	-.2857	4.56456	14
		Positive	-2.5000	3.87795	14
		Negative	-3.1538	4.05886	13

			Total	-1.9512	4.26000	41
	Total	Gain First	Neutral	3.0000	4.61455	18
			Positive	-1.7500	4.35135	20
			Negative	-1.3158	5.33388	19
			Total	-.1053	5.15712	57
		Loss First	Neutral	-.6316	5.51977	19
			Positive	-2.9286	4.46291	14
			Negative	-.3529	5.36122	17
			Total	-1.1800	5.20475	50
		Total	Neutral	1.1351	5.35497	37
			Positive	-2.2353	4.36972	34
			Negative	-.8611	5.29233	36
			Total	-.6075	5.18299	107
C1320tran	Child	Gain First	Neutral	.8333	5.15429	6
			Positive	-3.6000	5.41295	5
			Negative	-2.1429	5.78586	7
			Total	-1.5556	5.46887	18
		Loss First	Neutral	-6.2500	.50000	4
			Positive	-1.8000	6.68581	5
			Negative	-.2500	5.85235	4
			Total	-2.6923	5.48307	13
		Total	Neutral	-2.0000	5.31246	10
			Positive	-2.7000	5.81282	10
			Negative	-1.4545	5.59220	11
			Total	-2.0323	5.41285	31
	Adolescent	Gain First	Neutral	.8000	5.26308	5
			Positive	-3.0000	4.61880	7
			Negative	5.4000	1.67332	5
			Total	.5882	5.33923	17
		Loss First	Neutral	-1.2500	5.89794	8
			Positive	3.3333	5.50757	3

			Negative	2.7143	3.03942	7
			Total	1.0556	5.06977	18
		Total	Neutral	-.4615	5.53196	13
			Positive	-1.1000	5.50656	10
			Negative	3.8333	2.82307	12
			Total	.8286	5.13056	35
	Adult	Gain First	Neutral	1.1429	4.98092	7
			Positive	1.8750	3.72012	8
			Negative	-1.7143	4.71573	7
			Total	.5000	4.53295	22
		Loss First	Neutral	.0000	4.72582	7
			Positive	-2.8333	4.07022	6
			Negative	-3.3333	3.14113	6
			Total	-1.9474	4.14291	19
		Total	Neutral	.5714	4.70212	14
			Positive	-.1429	4.43512	14
			Negative	-2.4615	3.99198	13
			Total	-.6341	4.47636	41
	Total	Gain First	Neutral	.9444	4.80774	18
			Positive	-1.2000	4.96938	20
			Negative	.0000	5.49747	19
			Total	-.1228	5.08875	57
		Loss First	Neutral	-1.8421	5.17755	19
			Positive	-1.1429	5.55888	14
			Negative	-.1176	4.51224	17
			Total	-1.0600	5.02406	50
		Total	Neutral	-.4865	5.12955	37
			Positive	-1.1765	5.13733	34
			Negative	-.0556	4.98538	36
			Total	-.5607	5.05662	107
C13150tran	Child	Gain First	Neutral	-1.3333	5.71548	6

		Positive	-4.2000	4.20714	5
		Negative	-5.7143	1.49603	7
		Total	-3.8333	4.27372	18
	Loss First	Neutral	-6.7500	.50000	4
		Positive	-1.6000	6.98570	5
		Negative	-2.2500	5.73730	4
		Total	-3.3846	5.48541	13
	Total	Neutral	-3.5000	5.10446	10
		Positive	-2.9000	5.60654	10
		Negative	-4.4545	3.77793	11
		Total	-3.6452	4.73672	31
Adolescent	Gain First	Neutral	.4000	5.59464	5
		Positive	.1429	5.75698	7
		Negative	-1.8000	5.11859	5
		Total	-.3529	5.26713	17
	Loss First	Neutral	-.1250	5.33017	8
		Positive	3.3333	5.50757	3
		Negative	3.4286	3.40867	7
		Total	1.8333	4.75580	18
	Total	Neutral	.0769	5.20355	13
		Positive	1.1000	5.58669	10
		Negative	1.2500	4.80766	12
		Total	.7714	5.05898	35
Adult	Gain First	Neutral	5.1429	1.57359	7
		Positive	2.1250	4.18970	8
		Negative	2.4286	3.82349	7
		Total	3.1818	3.55416	22
	Loss First	Neutral	1.5714	4.72077	7
		Positive	2.1667	4.87511	6
		Negative	1.0000	5.54977	6
		Total	1.5789	4.77628	19

		Total	Neutral	3.3571	3.85521	14
			Positive	2.1429	4.31201	14
			Negative	1.7692	4.54888	13
			Total	2.4390	4.18956	41
	Total	Gain First	Neutral	1.6667	5.14496	18
			Positive	-.1500	5.21410	20
			Negative	-1.6842	4.93348	19
			Total	-.0877	5.19024	57
		Loss First	Neutral	-.8947	5.36340	19
			Positive	1.0714	5.77081	14
			Negative	1.2353	5.03152	17
			Total	.3800	5.35625	50
		Total	Neutral	.3514	5.34486	37
			Positive	.3529	5.39855	34
			Negative	-.3056	5.12595	36
			Total	.1308	5.24869	107
C145tran	Child	Gain First	Neutral	3.3333	4.67618	6
			Positive	-.6000	6.65582	5
			Negative	-2.1429	5.17779	7
			Total	.1111	5.67646	18
		Loss First	Neutral	-6.2500	.50000	4
			Positive	-1.8000	6.22093	5
			Negative	-2.5000	5.74456	4
			Total	-3.3846	5.02558	13
		Total	Neutral	-.5000	6.05989	10
			Positive	-1.2000	6.10646	10
			Negative	-2.2727	5.10080	11
			Total	-1.3548	5.60683	31
	Adolescent	Gain First	Neutral	5.8000	1.30384	5
			Positive	-1.0000	4.35890	7
			Negative	-2.0000	4.52769	5

		Total	.7059	4.93412	17
	Loss First	Neutral	-2.2500	5.06388	8
		Positive	-.6667	6.80686	3
		Negative	.8571	4.74091	7
		Total	-.7778	5.10542	18
	Total	Neutral	.8462	5.66931	13
		Positive	-.9000	4.79467	10
		Negative	-.3333	4.67748	12
		Total	-.0571	5.00554	35
Adult	Gain First	Neutral	-1.7143	3.72891	7
		Positive	1.2500	3.73210	8
		Negative	-1.2857	5.73627	7
		Total	-.5000	4.45881	22
	Loss First	Neutral	-.4286	5.22357	7
		Positive	-.8333	5.11534	6
		Negative	-4.5000	3.78153	6
		Total	-1.8421	4.87924	19
	Total	Neutral	-1.0714	4.41090	14
		Positive	.3571	4.32537	14
		Negative	-2.7692	5.01919	13
		Total	-1.1220	4.64863	41
Total	Gain First	Neutral	2.0556	4.72132	18
		Positive	.0000	4.64531	20
		Negative	-1.7895	4.96184	19
		Total	.0526	4.94405	57
	Loss First	Neutral	-2.4211	4.89121	19
		Positive	-1.1429	5.41873	14
		Negative	-1.8235	5.00294	17
		Total	-1.8600	5.00208	50
	Total	Neutral	-.2432	5.25677	37
		Positive	-.4706	4.93126	34

			Negative	-1.8056	4.90958	36
			Total	-.8411	5.03975	107
C1420tran	Child	Gain First	Neutral	-.6667	5.12510	6
			Positive	-3.2000	5.93296	5
			Negative	-.1429	5.72796	7
			Total	-1.1667	5.41512	18
		Loss First	Neutral	-3.2500	6.84957	4
			Positive	-1.0000	6.89202	5
			Negative	-3.7500	2.75379	4
			Total	-2.5385	5.57697	13
		Total	Neutral	-1.7000	5.65784	10
			Positive	-2.1000	6.17252	10
			Negative	-1.4545	5.02720	11
			Total	-1.7419	5.43426	31
	Adolescent	Gain First	Neutral	4.2000	5.21536	5
			Positive	-.1429	5.39841	7
			Negative	-1.4000	4.92950	5
			Total	.7647	5.41444	17
		Loss First	Neutral	-1.2500	5.31171	8
			Positive	6.6667	.57735	3
			Negative	.4286	4.46681	7
			Total	.7222	5.17693	18
		Total	Neutral	.8462	5.75682	13
			Positive	1.9000	5.50656	10
			Negative	-.3333	4.53939	12
			Total	.7429	5.21504	35
	Adult	Gain First	Neutral	3.0000	3.36650	7
			Positive	.0000	4.44008	8
			Negative	2.8571	4.14039	7
			Total	1.8636	4.09757	22
		Loss First	Neutral	.5714	4.61364	7

			Positive	-.3333	4.54606	6
			Negative	-3.3333	4.88535	6
			Total	-.9474	4.73138	19
		Total	Neutral	1.7857	4.07957	14
			Positive	-.1429	4.31201	14
			Negative	.0000	5.36967	13
			Total	.5610	4.57192	41
	Total	Gain First	Neutral	2.1111	4.73894	18
			Positive	-.8500	5.08118	20
			Negative	.6316	5.03555	19
			Total	.5789	5.02120	57
		Loss First	Neutral	-1.0000	5.29150	19
			Positive	.9286	5.69027	14
			Negative	-1.8824	4.51224	17
			Total	-.7600	5.17671	50
		Total	Neutral	.5135	5.20481	37
			Positive	-.1176	5.33010	34
			Negative	-.5556	4.89574	36
			Total	-.0467	5.11451	107
C14150tran	Child	Gain First	Neutral	-5.0000	.63246	6
			Positive	-3.8000	5.54076	5
			Negative	-3.8571	4.29839	7
			Total	-4.2222	3.76603	18
		Loss First	Neutral	-3.5000	5.68624	4
			Positive	.8000	7.22496	5
			Negative	-3.7500	5.85235	4
			Total	-1.9231	6.25115	13
		Total	Neutral	-4.4000	3.40588	10
			Positive	-1.5000	6.53622	10
			Negative	-3.8182	4.62208	11
			Total	-3.2581	4.99978	31

Adolescent	Gain First	Neutral	3.0000	5.43139	5
		Positive	.1429	5.89996	7
		Negative	-.4000	5.02991	5
		Total	.8235	5.37628	17
	Loss First	Neutral	-3.1250	4.54933	8
		Positive	7.0000	.00000	3
		Negative	3.5714	3.50510	7
		Total	1.1667	5.46916	18
	Total	Neutral	-.7692	5.61477	13
		Positive	2.2000	5.84618	10
		Negative	1.9167	4.48144	12
		Total	1.0000	5.34680	35
Adult	Gain First	Neutral	3.4286	3.64496	7
		Positive	2.2500	3.91882	8
		Negative	4.0000	4.20317	7
		Total	3.1818	3.81272	22
	Loss First	Neutral	3.1429	3.57904	7
		Positive	.1667	5.38207	6
		Negative	2.3333	4.22690	6
		Total	1.9474	4.35219	19
	Total	Neutral	3.2857	3.47361	14
		Positive	1.3571	4.53376	14
		Negative	3.2308	4.12621	13
		Total	2.6098	4.06742	41
Total	Gain First	Neutral	.5000	5.27201	18
		Positive	.0000	5.39005	20
		Negative	-.0526	5.45154	19
		Total	.1404	5.28285	57
	Loss First	Neutral	-.8947	5.26935	19
		Positive	1.8571	5.92072	14
		Negative	1.4118	5.06284	17

			Total	.6600	5.42334	50
		Total	Neutral	-.2162	5.24476	37
			Positive	.7647	5.60335	34
			Negative	.6389	5.24896	36
			Total	.3832	5.32995	107
C1210Ltran	Child	Gain First	Neutral	-3.6667	4.76095	6
			Positive	-6.0000	1.22474	5
			Negative	-1.4286	5.41163	7
			Total	-3.4444	4.57901	18
		Loss First	Neutral	-6.7500	.50000	4
			Positive	-3.0000	5.33854	5
			Negative	-5.7500	1.89297	4
			Total	-5.0000	3.65148	13
		Total	Neutral	-4.9000	3.90014	10
			Positive	-4.5000	3.97911	10
			Negative	-3.0000	4.83735	11
			Total	-4.0968	4.22181	31
	Adolescent	Gain First	Neutral	-5.8000	1.30384	5
			Positive	-4.8571	2.47848	7
			Negative	-1.4000	5.89915	5
			Total	-4.1176	3.85491	17
		Loss First	Neutral	-2.3750	5.01248	8
			Positive	-5.3333	1.52753	3
			Negative	-2.8571	4.41318	7
			Total	-3.0556	4.31785	18
		Total	Neutral	-3.6923	4.26975	13
			Positive	-5.0000	2.16025	10
			Negative	-2.2500	4.88272	12
			Total	-3.5714	4.07493	35
	Adult	Gain First	Neutral	-2.1429	4.09994	7
			Positive	-3.2500	4.26782	8

			Negative	-5.7143	1.38013	7
			Total	-3.6818	3.69538	22
		Loss First	Neutral	-4.1429	3.80476	7
			Positive	-5.5000	1.37840	6
			Negative	-1.3333	5.85377	6
			Total	-3.6842	4.23022	19
		Total	Neutral	-3.1429	3.93910	14
			Positive	-4.2143	3.44581	14
			Negative	-3.6923	4.51635	13
			Total	-3.6829	3.90153	41
	Total	Gain First	Neutral	-3.6667	3.91077	18
			Positive	-4.5000	3.20362	20
			Negative	-3.0000	4.76095	19
			Total	-3.7368	3.97549	57
		Loss First	Neutral	-3.9474	4.18295	19
			Positive	-4.5714	3.36759	14
			Negative	-3.0000	4.65027	17
			Total	-3.8000	4.11071	50
		Total	Neutral	-3.8108	3.99887	37
			Positive	-4.5294	3.22147	34
			Negative	-3.0000	4.64143	36
			Total	-3.7664	4.02018	107
C1240Ltran	Child	Gain First	Neutral	-5.6667	.51640	6
			Positive	-5.6000	1.94936	5
			Negative	-.5714	6.21442	7
			Total	-3.6667	4.58899	18
		Loss First	Neutral	-3.7500	5.85235	4
			Positive	-2.8000	5.67450	5
			Negative	-4.7500	1.70783	4
			Total	-3.6923	4.55311	13
		Total	Neutral	-4.9000	3.54181	10

		Positive	-4.2000	4.26354	10
		Negative	-2.0909	5.33769	11
		Total	-3.6774	4.49731	31
Adolescent	Gain First	Neutral	-.6000	6.18870	5
		Positive	-4.1429	2.54484	7
		Negative	-5.4000	.54772	5
		Total	-3.4706	4.00184	17
	Loss First	Neutral	-2.5000	5.07093	8
		Positive	2.6667	4.93288	3
		Negative	.2857	5.70714	7
		Total	-.5556	5.37119	18
	Total	Neutral	-1.7692	5.35652	13
		Positive	-2.1000	4.53260	10
		Negative	-2.0833	5.14266	12
		Total	-1.9714	4.91388	35
Adult	Gain First	Neutral	2.0000	4.54606	7
		Positive	-2.0000	4.20883	8
		Negative	-2.5714	4.35343	7
		Total	-.9091	4.62817	22
	Loss First	Neutral	-2.8571	4.70562	7
		Positive	-.6667	4.84424	6
		Negative	-1.1667	5.70672	6
		Total	-1.6316	4.89002	19
	Total	Neutral	-.4286	5.10978	14
		Positive	-1.4286	4.36268	14
		Negative	-1.9231	4.85561	13
		Total	-1.2439	4.70521	41
Total	Gain First	Neutral	-1.2778	5.26705	18
		Positive	-3.6500	3.40704	20
		Negative	-2.5789	4.79949	19
		Total	-2.5439	4.55157	57

		Loss First	Neutral	-2.8947	4.82925	19
			Positive	-.7143	5.19509	14
			Negative	-1.4118	5.19686	17
			Total	-1.7800	5.03980	50
		Total	Neutral	-2.1081	5.04306	37
			Positive	-2.4412	4.41204	34
			Negative	-2.0278	4.95399	36
			Total	-2.1869	4.77835	107
C12300Ltran	Child	Gain First	Neutral	-4.1667	5.52871	6
			Positive	-6.6000	.89443	5
			Negative	-4.0000	5.00000	7
			Total	-4.7778	4.39994	18
		Loss First	Neutral	-3.5000	5.74456	4
			Positive	-.4000	5.98331	5
			Negative	-3.2500	3.09570	4
			Total	-2.2308	4.98588	13
		Total	Neutral	-3.9000	5.30094	10
			Positive	-3.5000	5.19080	10
			Negative	-3.7273	4.24478	11
			Total	-3.7097	4.74829	31
	Adolescent	Gain First	Neutral	1.4000	6.84105	5
			Positive	-2.4286	4.99524	7
			Negative	-4.6000	1.51658	5
			Total	-1.9412	5.23773	17
		Loss First	Neutral	1.3750	5.95069	8
			Positive	-.3333	5.50757	3
			Negative	1.1429	4.29839	7
			Total	1.0000	5.00588	18
		Total	Neutral	1.3846	6.02133	13
			Positive	-1.8000	4.93964	10
			Negative	-1.2500	4.43386	12

			Total	-.4286	5.25965	35
	Adult	Gain First	Neutral	4.4286	1.27242	7
			Positive	1.5000	4.03556	8
			Negative	-.7143	5.21901	7
			Total	1.7273	4.25588	22
		Loss First	Neutral	.8571	4.81070	7
			Positive	-1.3333	5.27889	6
			Negative	1.0000	4.85798	6
			Total	.2105	4.81409	19
		Total	Neutral	2.6429	3.85521	14
			Positive	.2857	4.64805	14
			Negative	.0769	4.92378	13
			Total	1.0244	4.53039	41
	Total	Gain First	Neutral	.7222	5.89921	18
			Positive	-1.9000	4.98313	20
			Negative	-2.9474	4.58831	19
			Total	-1.4211	5.30144	57
		Loss First	Neutral	.1579	5.55041	19
			Positive	-.7857	5.16167	14
			Negative	.0588	4.43665	17
			Total	-.1400	4.99800	50
		Total	Neutral	.4324	5.64968	37
			Positive	-1.4412	5.01024	34
			Negative	-1.5278	4.70554	36
			Total	-.8224	5.17762	107
C1315Ltran	Child	Gain First	Neutral	-2.1667	3.48807	6
			Positive	-4.6000	3.78153	5
			Negative	-3.5714	3.90969	7
			Total	-3.3889	3.64835	18
		Loss First	Neutral	-3.7500	5.25198	4
			Positive	-3.6000	4.92950	5

			Negative	.0000	5.59762	4
			Total	-2.5385	5.09273	13
		Total	Neutral	-2.8000	4.07704	10
			Positive	-4.1000	4.17532	10
			Negative	-2.2727	4.67099	11
			Total	-3.0323	4.25428	31
	Adolescent	Gain First	Neutral	.8000	5.58570	5
			Positive	-5.0000	2.00000	7
			Negative	-.8000	4.86826	5
			Total	-2.0588	4.69668	17
		Loss First	Neutral	-1.8750	5.43632	8
			Positive	-.6667	5.85947	3
			Negative	1.5714	4.54082	7
			Total	-.3333	5.11054	18
		Total	Neutral	-.8462	5.42903	13
			Positive	-3.7000	3.83116	10
			Negative	.5833	4.62126	12
			Total	-1.1714	4.91986	35
	Adult	Gain First	Neutral	-2.4286	4.15761	7
			Positive	-1.2500	4.33425	8
			Negative	-3.2857	3.86067	7
			Total	-2.2727	4.02589	22
		Loss First	Neutral	-2.1429	4.05909	7
			Positive	-5.0000	1.26491	6
			Negative	-5.3333	1.63299	6
			Total	-4.0526	2.99024	19
		Total	Neutral	-2.2857	3.95024	14
			Positive	-2.8571	3.79994	14
			Negative	-4.2308	3.11325	13
			Total	-3.0976	3.65243	41
	Total	Gain First	Neutral	-1.4444	4.36863	18

			Positive	-3.4000	3.80305	20
			Negative	-2.7368	4.09393	19
			Total	-2.5614	4.09275	57
		Loss First	Neutral	-2.3684	4.70473	19
			Positive	-3.5714	4.03283	14
			Negative	-1.2353	4.95643	17
			Total	-2.3200	4.61780	50
		Total	Neutral	-1.9189	4.50542	37
			Positive	-3.4706	3.83947	34
			Negative	-2.0278	4.51971	36
			Total	-2.4486	4.32682	107
C1360Ltran	Child	Gain First	Neutral	-3.6667	5.31664	6
			Positive	-5.6000	2.19089	5
			Negative	-.2857	6.21059	7
			Total	-2.8889	5.31246	18
		Loss First	Neutral	-6.5000	1.00000	4
			Positive	-.8000	5.97495	5
			Negative	-5.7500	2.50000	4
			Total	-4.0769	4.59096	13
		Total	Neutral	-4.8000	4.26354	10
			Positive	-3.2000	4.93964	10
			Negative	-2.2727	5.71123	11
			Total	-3.3871	4.97780	31
	Adolescent	Gain First	Neutral	-1.0000	6.04152	5
			Positive	.7143	4.71573	7
			Negative	3.4000	3.64692	5
			Total	1.0000	4.88621	17
		Loss First	Neutral	-.1250	5.11126	8
			Positive	6.3333	.57735	3
			Negative	.8571	4.87950	7
			Total	1.3333	4.97050	18

		Total	Neutral	-.4615	5.25381	13
			Positive	2.4000	4.71876	10
			Negative	1.9167	4.42017	12
			Total	1.1714	4.85971	35
	Adult	Gain First	Neutral	-.4286	4.96176	7
			Positive	-.8750	4.12094	8
			Negative	-1.0000	4.58258	7
			Total	-.7727	4.33075	22
		Loss First	Neutral	-1.8571	4.22013	7
			Positive	.8333	4.62241	6
			Negative	-.5000	5.46809	6
			Total	-.5789	4.63460	19
		Total	Neutral	-1.1429	4.48686	14
			Positive	-.1429	4.25815	14
			Negative	-.7692	4.79850	13
			Total	-.6829	4.41837	41
	Total	Gain First	Neutral	-1.6667	5.26922	18
			Positive	-1.5000	4.54799	20
			Negative	.4211	5.12419	19
			Total	-.9123	4.97953	57
		Loss First	Neutral	-2.1053	4.72458	19
			Positive	1.4286	5.18451	14
			Negative	-1.1765	5.16279	17
			Total	-.8000	5.11500	50
		Total	Neutral	-1.8919	4.93167	37
			Positive	-.2941	4.96368	34
			Negative	-.3333	5.13253	36
			Total	-.8598	5.01968	107
C13450Ltran	Child	Gain First	Neutral	-5.1667	.75277	6
			Positive	-5.8000	1.78885	5
			Negative	-2.4286	5.12696	7

		Total	-4.2778	3.54477	18
	Loss First	Neutral	-3.2500	5.67891	4
		Positive	-2.8000	5.16720	5
		Negative	1.0000	5.35413	4
		Total	-1.7692	5.27816	13
	Total	Neutral	-4.4000	3.47051	10
		Positive	-4.3000	3.97352	10
		Negative	-1.1818	5.23103	11
		Total	-3.2258	4.45503	31
Adolescent	Gain First	Neutral	-1.8000	5.06952	5
		Positive	3.2857	3.81725	7
		Negative	1.6000	5.22494	5
		Total	1.2941	4.84465	17
	Loss First	Neutral	1.7500	5.11999	8
		Positive	.0000	6.24500	3
		Negative	-.2857	5.08967	7
		Total	.6667	5.05266	18
	Total	Neutral	.3846	5.20478	13
		Positive	2.3000	4.57165	10
		Negative	.5000	5.00000	12
		Total	.9714	4.88988	35
Adult	Gain First	Neutral	1.8571	4.94734	7
		Positive	1.1250	3.83359	8
		Negative	2.7143	3.03942	7
		Total	1.8636	3.87047	22
	Loss First	Neutral	.2857	4.02965	7
		Positive	.3333	4.45720	6
		Negative	2.3333	5.00666	6
		Total	.9474	4.33940	19
	Total	Neutral	1.0714	4.41090	14
		Positive	.7857	3.96482	14

			Negative	2.5385	3.88620	13
			Total	1.4390	4.06847	41
	Total	Gain First	Neutral	-1.5000	4.92592	18
			Positive	.1500	4.90193	20
			Negative	.5263	4.84617	19
			Total	-.2456	4.88175	57
		Loss First	Neutral	.1579	4.96950	19
			Positive	-.8571	4.91242	14
			Negative	.9412	4.93040	17
			Total	.1400	4.89068	50
		Total	Neutral	-.6486	4.95096	37
			Positive	-.2647	4.85741	34
			Negative	.7222	4.82026	36
			Total	-.0654	4.86666	107
C1420Ltran	Child	Gain First	Neutral	-2.8333	4.87511	6
			Positive	-6.0000	1.73205	5
			Negative	-1.5714	4.54082	7
			Total	-3.2222	4.29165	18
		Loss First	Neutral	-6.0000	.81650	4
			Positive	.0000	5.61249	5
			Negative	-1.0000	5.35413	4
			Total	-2.1538	5.01408	13
		Total	Neutral	-4.1000	4.01248	10
			Positive	-3.0000	5.03322	10
			Negative	-1.3636	4.58852	11
			Total	-2.7742	4.55858	31
	Adolescent	Gain First	Neutral	-2.0000	5.19615	5
			Positive	-2.2857	4.38613	7
			Negative	.4000	5.17687	5
			Total	-1.4118	4.70450	17
		Loss First	Neutral	-3.7500	3.37004	8

		Positive	-.6667	6.80686	3
		Negative	3.7143	3.40168	7
		Total	-.3333	5.14496	18
	Total	Neutral	-3.0769	4.05096	13
		Positive	-1.8000	4.87169	10
		Negative	2.3333	4.35542	12
		Total	-.8571	4.89383	35
Adult	Gain First	Neutral	-.8571	4.48808	7
		Positive	.1250	4.51782	8
		Negative	-2.8571	3.97612	7
		Total	-1.1364	4.32375	22
	Loss First	Neutral	-2.8571	3.43650	7
		Positive	-4.5000	1.04881	6
		Negative	-1.5000	5.35724	6
		Total	-2.9474	3.70396	19
	Total	Neutral	-1.8571	3.97796	14
		Positive	-1.8571	4.12976	14
		Negative	-2.2308	4.51209	13
		Total	-1.9756	4.10175	41
Total	Gain First	Neutral	-1.8333	4.60498	18
		Positive	-2.2500	4.50584	20
		Negative	-1.5263	4.45182	19
		Total	-1.8772	4.44840	57
	Loss First	Neutral	-3.8947	3.14280	19
		Positive	-2.0714	4.69802	14
		Negative	.7647	5.01908	17
		Total	-1.8000	4.65986	50
	Total	Neutral	-2.8919	4.00544	37
		Positive	-2.1765	4.51577	34
		Negative	-.4444	4.80145	36
		Total	-1.8411	4.52696	107

C1480Ltran	Child	Gain First	Neutral	.1667	5.19294	6
			Positive	-6.2000	1.78885	5
			Negative	-.7143	5.05682	7
			Total	-1.9444	5.02315	18
		Loss First	Neutral	-6.5000	1.00000	4
			Positive	-.2000	5.26308	5
			Negative	-1.5000	4.65475	4
			Total	-2.5385	4.77171	13
		Total	Neutral	-2.5000	5.21217	10
			Positive	-3.2000	4.87169	10
			Negative	-1.0000	4.69042	11
			Total	-2.1935	4.84713	31
	Adolescent	Gain First	Neutral	2.0000	4.74342	5
			Positive	-3.1429	4.09994	7
			Negative	4.2000	.83666	5
			Total	.5294	4.78432	17
		Loss First	Neutral	1.2500	4.94975	8
			Positive	3.6667	4.93288	3
			Negative	2.5714	3.35942	7
			Total	2.1667	4.21831	18
		Total	Neutral	1.5385	4.68358	13
			Positive	-1.1000	5.23768	10
			Negative	3.2500	2.66714	12
			Total	1.3714	4.51198	35
	Adult	Gain First	Neutral	.4286	5.44234	7
			Positive	.8750	3.87068	8
			Negative	-1.7143	4.38613	7
			Total	-.0909	4.50301	22
		Loss First	Neutral	-.4286	5.02849	7
			Positive	-.6667	4.08248	6
			Negative	-1.1667	4.91596	6

			Total	-.7368	4.45773	19
		Total	Neutral	.0000	5.05356	14
			Positive	.2143	3.88644	14
			Negative	-1.4615	4.44626	13
			Total	-.3902	4.43778	41
	Total	Gain First	Neutral	.7778	4.92957	18
			Positive	-2.3000	4.47331	20
			Negative	.2105	4.61373	19
			Total	-.4912	4.78137	57
		Loss First	Neutral	-1.0000	5.21749	19
			Positive	.4286	4.66928	14
			Negative	.2941	4.44079	17
			Total	-.1600	4.76107	50
		Total	Neutral	-.1351	5.08900	37
			Positive	-1.1765	4.68699	34
			Negative	.2500	4.46814	36
			Total	-.3364	4.75225	107
C14600Ltran	Child	Gain First	Neutral	-3.1667	5.11534	6
			Positive	-3.6000	5.07937	5
			Negative	-4.5714	4.03556	7
			Total	-3.8333	4.46226	18
		Loss First	Neutral	-2.5000	6.45497	4
			Positive	.0000	5.61249	5
			Negative	-2.0000	5.22813	4
			Total	-1.3846	5.39349	13
		Total	Neutral	-2.9000	5.34270	10
			Positive	-1.8000	5.39135	10
			Negative	-3.6364	4.43334	11
			Total	-2.8065	4.94246	31
	Adolescent	Gain First	Neutral	2.6000	6.06630	5
			Positive	.8571	5.75698	7

		Negative	1.8000	4.96991	5
		Total	1.6471	5.32613	17
	Loss First	Neutral	-1.1250	4.58063	8
		Positive	7.0000	.00000	3
		Negative	1.8571	4.29839	7
		Total	1.3889	4.87658	18
	Total	Neutral	.3077	5.29756	13
		Positive	2.7000	5.55878	10
		Negative	1.8333	4.36585	12
		Total	1.5143	5.02565	35
Adult	Gain First	Neutral	2.7143	4.75094	7
		Positive	3.6250	1.50594	8
		Negative	1.5714	3.77964	7
		Total	2.6818	3.46941	22
	Loss First	Neutral	2.0000	4.35890	7
		Positive	3.3333	3.50238	6
		Negative	1.6667	5.35413	6
		Total	2.3158	4.26943	19
	Total	Neutral	2.3571	4.39593	14
		Positive	3.5000	2.44163	14
		Negative	1.6154	4.36918	13
		Total	2.5122	3.81525	41
Total	Gain First	Neutral	.7222	5.68595	18
		Positive	.8500	5.01865	20
		Negative	-.6316	5.02450	19
		Total	.3158	5.18982	57
	Loss First	Neutral	-.2632	4.98712	19
		Positive	2.9286	4.64864	14
		Negative	.8824	4.87189	17
		Total	1.0200	4.93008	50
	Total	Neutral	.2162	5.28696	37

	Positive	1.7059	4.90843	34
	Negative	.0833	4.94180	36
	Total	.6449	5.05862	107

Tests of Within-Subjects Effects

Measure:SignedConfidence

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
frame	Sphericity Assumed	207.252	1	207.252	7.138	.009	.074
	Greenhouse-Geisser	207.252	1.000	207.252	7.138	.009	.074
	Huynh-Feldt	207.252	1.000	207.252	7.138	.009	.074
	Lower-bound	207.252	1.000	207.252	7.138	.009	.074
frame * Age_Group	Sphericity Assumed	2.283	2	1.141	.039	.961	.001
	Greenhouse-Geisser	2.283	2.000	1.141	.039	.961	.001
	Huynh-Feldt	2.283	2.000	1.141	.039	.961	.001
	Lower-bound	2.283	2.000	1.141	.039	.961	.001
frame * Order	Sphericity Assumed	78.089	1	78.089	2.689	.105	.029
	Greenhouse-Geisser	78.089	1.000	78.089	2.689	.105	.029
	Huynh-Feldt	78.089	1.000	78.089	2.689	.105	.029
	Lower-bound	78.089	1.000	78.089	2.689	.105	.029
frame * Condition	Sphericity Assumed	67.599	2	33.799	1.164	.317	.025
	Greenhouse-Geisser	67.599	2.000	33.799	1.164	.317	.025
	Huynh-Feldt	67.599	2.000	33.799	1.164	.317	.025
	Lower-bound	67.599	2.000	33.799	1.164	.317	.025

frame * Age_Group * Order	Sphericity Assumed	32.138	2	16.069	.553	.577	.012
	Greenhouse-Geisser	32.138	2.000	16.069	.553	.577	.012
	Huynh-Feldt	32.138	2.000	16.069	.553	.577	.012
	Lower-bound	32.138	2.000	16.069	.553	.577	.012
frame * Age_Group * Condition	Sphericity Assumed	29.887	4	7.472	.257	.904	.011
	Greenhouse-Geisser	29.887	4.000	7.472	.257	.904	.011
	Huynh-Feldt	29.887	4.000	7.472	.257	.904	.011
	Lower-bound	29.887	4.000	7.472	.257	.904	.011
frame * Order * Condition	Sphericity Assumed	32.166	2	16.083	.554	.577	.012
	Greenhouse-Geisser	32.166	2.000	16.083	.554	.577	.012
	Huynh-Feldt	32.166	2.000	16.083	.554	.577	.012
	Lower-bound	32.166	2.000	16.083	.554	.577	.012
frame * Age_Group * Order * Condition	Sphericity Assumed	391.195	4	97.799	3.368	.013	.131
	Greenhouse-Geisser	391.195	4.000	97.799	3.368	.013	.131
	Huynh-Feldt	391.195	4.000	97.799	3.368	.013	.131
	Lower-bound	391.195	4.000	97.799	3.368	.013	.131
Error(frame)	Sphericity Assumed	2584.295	89	29.037			
	Greenhouse-Geisser	2584.295	89.000	29.037			
	Huynh-Feldt	2584.295	89.000	29.037			
	Lower-bound	2584.295	89.000	29.037			
risk	Sphericity Assumed	802.950	2	401.475	16.324	.000	.155
	Greenhouse-Geisser	802.950	1.824	440.214	16.324	.000	.155

	Huynh-Feldt	802.950	2.000	401.475	16.324	.000	.155
	Lower-bound	802.950	1.000	802.950	16.324	.000	.155
risk * Age_Group	Sphericity Assumed	223.599	4	55.900	2.273	.063	.049
	Greenhouse-Geisser	223.599	3.648	61.294	2.273	.070	.049
	Huynh-Feldt	223.599	4.000	55.900	2.273	.063	.049
	Lower-bound	223.599	2.000	111.799	2.273	.109	.049
risk * Order	Sphericity Assumed	57.030	2	28.515	1.159	.316	.013
	Greenhouse-Geisser	57.030	1.824	31.266	1.159	.313	.013
	Huynh-Feldt	57.030	2.000	28.515	1.159	.316	.013
	Lower-bound	57.030	1.000	57.030	1.159	.284	.013
risk * Condition	Sphericity Assumed	127.048	4	31.762	1.291	.275	.028
	Greenhouse-Geisser	127.048	3.648	34.827	1.291	.277	.028
	Huynh-Feldt	127.048	4.000	31.762	1.291	.275	.028
	Lower-bound	127.048	2.000	63.524	1.291	.280	.028
risk * Age_Group * Order	Sphericity Assumed	33.011	4	8.253	.336	.854	.007
	Greenhouse-Geisser	33.011	3.648	9.049	.336	.837	.007
	Huynh-Feldt	33.011	4.000	8.253	.336	.854	.007
	Lower-bound	33.011	2.000	16.505	.336	.716	.007
risk * Age_Group * Condition	Sphericity Assumed	26.618	8	3.327	.135	.998	.006
	Greenhouse-Geisser	26.618	7.296	3.648	.135	.996	.006
	Huynh-Feldt	26.618	8.000	3.327	.135	.998	.006
	Lower-bound	26.618	4.000	6.654	.135	.969	.006

risk * Order * Condition	Sphericity Assumed	93.140	4	23.285	.947	.438	.021
	Greenhouse-Geisser	93.140	3.648	25.532	.947	.433	.021
	Huynh-Feldt	93.140	4.000	23.285	.947	.438	.021
	Lower-bound	93.140	2.000	46.570	.947	.392	.021
risk * Age_Group * Order * Condition	Sphericity Assumed	359.702	8	44.963	1.828	.075	.076
	Greenhouse-Geisser	359.702	7.296	49.301	1.828	.082	.076
	Huynh-Feldt	359.702	8.000	44.963	1.828	.075	.076
	Lower-bound	359.702	4.000	89.925	1.828	.130	.076
Error(risk)	Sphericity Assumed	4377.625	178	24.593			
	Greenhouse-Geisser	4377.625	162.336	26.966			
	Huynh-Feldt	4377.625	178.000	24.593			
	Lower-bound	4377.625	89.000	49.187			
reward	Sphericity Assumed	990.898	2	495.449	20.574	.000	.188
	Greenhouse-Geisser	990.898	1.823	543.611	20.574	.000	.188
	Huynh-Feldt	990.898	2.000	495.449	20.574	.000	.188
	Lower-bound	990.898	1.000	990.898	20.574	.000	.188
reward * Age_Group	Sphericity Assumed	1417.856	4	354.464	14.719	.000	.249
	Greenhouse-Geisser	1417.856	3.646	388.921	14.719	.000	.249
	Huynh-Feldt	1417.856	4.000	354.464	14.719	.000	.249
	Lower-bound	1417.856	2.000	708.928	14.719	.000	.249
reward * Order	Sphericity Assumed	168.067	2	84.033	3.490	.033	.038

	Greenhouse-Geisser	168.067	1.823	92.202	3.490	.037	.038
	Huynh-Feldt	168.067	2.000	84.033	3.490	.033	.038
	Lower-bound	168.067	1.000	168.067	3.490	.065	.038
reward * Condition	Sphericity Assumed	132.457	4	33.114	1.375	.244	.030
	Greenhouse-Geisser	132.457	3.646	36.333	1.375	.248	.030
	Huynh-Feldt	132.457	4.000	33.114	1.375	.244	.030
	Lower-bound	132.457	2.000	66.228	1.375	.258	.030
reward * Age_Group * Order	Sphericity Assumed	123.967	4	30.992	1.287	.277	.028
	Greenhouse-Geisser	123.967	3.646	34.004	1.287	.279	.028
	Huynh-Feldt	123.967	4.000	30.992	1.287	.277	.028
	Lower-bound	123.967	2.000	61.983	1.287	.281	.028
reward * Age_Group * Condition	Sphericity Assumed	283.246	8	35.406	1.470	.171	.062
	Greenhouse-Geisser	283.246	7.291	38.847	1.470	.178	.062
	Huynh-Feldt	283.246	8.000	35.406	1.470	.171	.062
	Lower-bound	283.246	4.000	70.811	1.470	.218	.062
reward * Order * Condition	Sphericity Assumed	277.384	4	69.346	2.880	.024	.061
	Greenhouse-Geisser	277.384	3.646	76.087	2.880	.028	.061
	Huynh-Feldt	277.384	4.000	69.346	2.880	.024	.061
	Lower-bound	277.384	2.000	138.692	2.880	.061	.061
reward * Age_Group * Order * Condition	Sphericity Assumed	155.003	8	19.375	.805	.599	.035
	Greenhouse-Geisser	155.003	7.291	21.259	.805	.589	.035
	Huynh-Feldt	155.003	8.000	19.375	.805	.599	.035

	Lower-bound	155.003	4.000	38.751	.805	.525	.035
Error(reward)	Sphericity Assumed	4286.521	178	24.082			
	Greenhouse-Geisser	4286.521	162.230	26.423			
	Huynh-Feldt	4286.521	178.000	24.082			
	Lower-bound	4286.521	89.000	48.163			
frame * risk	Sphericity Assumed	27.912	2	13.956	1.114	.331	.012
	Greenhouse-Geisser	27.912	1.960	14.239	1.114	.330	.012
	Huynh-Feldt	27.912	2.000	13.956	1.114	.331	.012
	Lower-bound	27.912	1.000	27.912	1.114	.294	.012
frame * risk * Age_Group	Sphericity Assumed	13.664	4	3.416	.273	.895	.006
	Greenhouse-Geisser	13.664	3.921	3.485	.273	.892	.006
	Huynh-Feldt	13.664	4.000	3.416	.273	.895	.006
	Lower-bound	13.664	2.000	6.832	.273	.762	.006
frame * risk * Order	Sphericity Assumed	21.368	2	10.684	.853	.428	.009
	Greenhouse-Geisser	21.368	1.960	10.901	.853	.426	.009
	Huynh-Feldt	21.368	2.000	10.684	.853	.428	.009
	Lower-bound	21.368	1.000	21.368	.853	.358	.009
frame * risk * Condition	Sphericity Assumed	135.158	4	33.789	2.697	.032	.057
	Greenhouse-Geisser	135.158	3.921	34.474	2.697	.033	.057
	Huynh-Feldt	135.158	4.000	33.789	2.697	.032	.057
	Lower-bound	135.158	2.000	67.579	2.697	.073	.057
frame * risk * Age_Group *	Sphericity Assumed	69.401	4	17.350	1.385	.241	.030

Order	Greenhouse-Geisser	69.401	3.921	17.702	1.385	.242	.030
	Huynh-Feldt	69.401	4.000	17.350	1.385	.241	.030
	Lower-bound	69.401	2.000	34.700	1.385	.256	.030
frame * risk * Age_Group * Condition	Sphericity Assumed	186.320	8	23.290	1.859	.069	.077
	Greenhouse-Geisser	186.320	7.841	23.762	1.859	.071	.077
	Huynh-Feldt	186.320	8.000	23.290	1.859	.069	.077
	Lower-bound	186.320	4.000	46.580	1.859	.125	.077
frame * risk * Order * Condition	Sphericity Assumed	109.947	4	27.487	2.194	.072	.047
	Greenhouse-Geisser	109.947	3.921	28.044	2.194	.073	.047
	Huynh-Feldt	109.947	4.000	27.487	2.194	.072	.047
	Lower-bound	109.947	2.000	54.973	2.194	.118	.047
frame * risk * Age_Group * Order * Condition	Sphericity Assumed	183.821	8	22.978	1.834	.074	.076
	Greenhouse-Geisser	183.821	7.841	23.443	1.834	.075	.076
	Huynh-Feldt	183.821	8.000	22.978	1.834	.074	.076
	Lower-bound	183.821	4.000	45.955	1.834	.129	.076
Error(frame*risk)	Sphericity Assumed	2230.376	178	12.530			
	Greenhouse-Geisser	2230.376	174.463	12.784			
	Huynh-Feldt	2230.376	178.000	12.530			
	Lower-bound	2230.376	89.000	25.060			
frame * reward	Sphericity Assumed	159.844	2	79.922	3.395	.036	.037
	Greenhouse-Geisser	159.844	1.993	80.212	3.395	.036	.037
	Huynh-Feldt	159.844	2.000	79.922	3.395	.036	.037

	Lower-bound	159.844	1.000	159.844	3.395	.069	.037
frame * reward * Age_Group	Sphericity Assumed	78.841	4	19.710	.837	.503	.018
	Greenhouse-Geisser	78.841	3.986	19.782	.837	.503	.018
	Huynh-Feldt	78.841	4.000	19.710	.837	.503	.018
	Lower-bound	78.841	2.000	39.421	.837	.436	.018
frame * reward * Order	Sphericity Assumed	32.327	2	16.163	.687	.505	.008
	Greenhouse-Geisser	32.327	1.993	16.222	.687	.504	.008
	Huynh-Feldt	32.327	2.000	16.163	.687	.505	.008
	Lower-bound	32.327	1.000	32.327	.687	.410	.008
frame * reward * Condition	Sphericity Assumed	94.194	4	23.548	1.000	.409	.022
	Greenhouse-Geisser	94.194	3.986	23.634	1.000	.409	.022
	Huynh-Feldt	94.194	4.000	23.548	1.000	.409	.022
	Lower-bound	94.194	2.000	47.097	1.000	.372	.022
frame * reward * Age_Group * Order	Sphericity Assumed	44.449	4	11.112	.472	.756	.010
	Greenhouse-Geisser	44.449	3.986	11.152	.472	.756	.010
	Huynh-Feldt	44.449	4.000	11.112	.472	.756	.010
	Lower-bound	44.449	2.000	22.224	.472	.625	.010
frame * reward * Age_Group * Condition	Sphericity Assumed	140.629	8	17.579	.747	.650	.032
	Greenhouse-Geisser	140.629	7.971	17.642	.747	.650	.032
	Huynh-Feldt	140.629	8.000	17.579	.747	.650	.032
	Lower-bound	140.629	4.000	35.157	.747	.563	.032
frame * reward * Order * Condition	Sphericity Assumed	32.782	4	8.195	.348	.845	.008

	Greenhouse-Geisser	32.782	3.986	8.225	.348	.844	.008
	Huynh-Feldt	32.782	4.000	8.195	.348	.845	.008
	Lower-bound	32.782	2.000	16.391	.348	.707	.008
frame * reward * Age_Group * Order * Condition	Sphericity Assumed	84.045	8	10.506	.446	.892	.020
	Greenhouse-Geisser	84.045	7.971	10.544	.446	.891	.020
	Huynh-Feldt	84.045	8.000	10.506	.446	.892	.020
	Lower-bound	84.045	4.000	21.011	.446	.775	.020
Error(frame*reward)	Sphericity Assumed	4190.350	178	23.541			
	Greenhouse-Geisser	4190.350	177.357	23.627			
	Huynh-Feldt	4190.350	178.000	23.541			
	Lower-bound	4190.350	89.000	47.083			
risk * reward	Sphericity Assumed	40.445	4	10.111	.817	.515	.009
	Greenhouse-Geisser	40.445	3.711	10.899	.817	.507	.009
	Huynh-Feldt	40.445	4.000	10.111	.817	.515	.009
	Lower-bound	40.445	1.000	40.445	.817	.368	.009
risk * reward * Age_Group	Sphericity Assumed	118.380	8	14.798	1.196	.300	.026
	Greenhouse-Geisser	118.380	7.422	15.951	1.196	.303	.026
	Huynh-Feldt	118.380	8.000	14.798	1.196	.300	.026
	Lower-bound	118.380	2.000	59.190	1.196	.307	.026
risk * reward * Order	Sphericity Assumed	12.125	4	3.031	.245	.913	.003
	Greenhouse-Geisser	12.125	3.711	3.267	.245	.901	.003
	Huynh-Feldt	12.125	4.000	3.031	.245	.913	.003

	Lower-bound	12.125	1.000	12.125	.245	.622	.003
risk * reward * Condition	Sphericity Assumed	230.531	8	28.816	2.329	.019	.050
	Greenhouse-Geisser	230.531	7.422	31.063	2.329	.022	.050
	Huynh-Feldt	230.531	8.000	28.816	2.329	.019	.050
	Lower-bound	230.531	2.000	115.266	2.329	.103	.050
risk * reward * Age_Group * Order	Sphericity Assumed	55.117	8	6.890	.557	.813	.012
	Greenhouse-Geisser	55.117	7.422	7.427	.557	.801	.012
	Huynh-Feldt	55.117	8.000	6.890	.557	.813	.012
	Lower-bound	55.117	2.000	27.559	.557	.575	.012
risk * reward * Age_Group * Condition	Sphericity Assumed	149.342	16	9.334	.754	.737	.033
	Greenhouse-Geisser	149.342	14.843	10.061	.754	.727	.033
	Huynh-Feldt	149.342	16.000	9.334	.754	.737	.033
	Lower-bound	149.342	4.000	37.335	.754	.558	.033
risk * reward * Order * Condition	Sphericity Assumed	144.742	8	18.093	1.462	.170	.032
	Greenhouse-Geisser	144.742	7.422	19.503	1.462	.176	.032
	Huynh-Feldt	144.742	8.000	18.093	1.462	.170	.032
	Lower-bound	144.742	2.000	72.371	1.462	.237	.032
risk * reward * Age_Group * Order * Condition	Sphericity Assumed	483.217	16	30.201	2.440	.002	.099
	Greenhouse-Geisser	483.217	14.843	32.555	2.440	.002	.099
	Huynh-Feldt	483.217	16.000	30.201	2.440	.002	.099
	Lower-bound	483.217	4.000	120.804	2.440	.053	.099
Error(risk*reward)	Sphericity Assumed	4405.662	356	12.375			

	Greenhouse-Geisser	4405.662	330.258	13.340			
	Huynh-Feldt	4405.662	356.000	12.375			
	Lower-bound	4405.662	89.000	49.502			
frame * risk * reward	Sphericity Assumed	8.877	4	2.219	.169	.954	.002
	Greenhouse-Geisser	8.877	3.496	2.539	.169	.938	.002
	Huynh-Feldt	8.877	4.000	2.219	.169	.954	.002
	Lower-bound	8.877	1.000	8.877	.169	.682	.002
frame * risk * reward * Age_Group	Sphericity Assumed	38.428	8	4.804	.366	.938	.008
	Greenhouse-Geisser	38.428	6.992	5.496	.366	.921	.008
	Huynh-Feldt	38.428	8.000	4.804	.366	.938	.008
	Lower-bound	38.428	2.000	19.214	.366	.694	.008
frame * risk * reward * Order	Sphericity Assumed	24.393	4	6.098	.465	.761	.005
	Greenhouse-Geisser	24.393	3.496	6.978	.465	.736	.005
	Huynh-Feldt	24.393	4.000	6.098	.465	.761	.005
	Lower-bound	24.393	1.000	24.393	.465	.497	.005
frame * risk * reward * Condition	Sphericity Assumed	180.670	8	22.584	1.722	.092	.037
	Greenhouse-Geisser	180.670	6.992	25.841	1.722	.103	.037
	Huynh-Feldt	180.670	8.000	22.584	1.722	.092	.037
	Lower-bound	180.670	2.000	90.335	1.722	.185	.037
frame * risk * reward * Age_Group * Order	Sphericity Assumed	180.281	8	22.535	1.719	.093	.037
	Greenhouse-Geisser	180.281	6.992	25.785	1.719	.104	.037
	Huynh-Feldt	180.281	8.000	22.535	1.719	.093	.037

	Lower-bound	180.281	2.000	90.141	1.719	.185	.037
frame * risk * reward * Age_Group * Condition	Sphericity Assumed	150.746	16	9.422	.719	.775	.031
	Greenhouse-Geisser	150.746	13.983	10.780	.719	.755	.031
	Huynh-Feldt	150.746	16.000	9.422	.719	.775	.031
	Lower-bound	150.746	4.000	37.687	.719	.581	.031
frame * risk * reward * Order * Condition	Sphericity Assumed	49.230	8	6.154	.469	.878	.010
	Greenhouse-Geisser	49.230	6.992	7.041	.469	.856	.010
	Huynh-Feldt	49.230	8.000	6.154	.469	.878	.010
	Lower-bound	49.230	2.000	24.615	.469	.627	.010
frame * risk * reward * Age_Group * Order * Condition	Sphericity Assumed	174.320	16	10.895	.831	.650	.036
	Greenhouse-Geisser	174.320	13.983	12.466	.831	.635	.036
	Huynh-Feldt	174.320	16.000	10.895	.831	.650	.036
	Lower-bound	174.320	4.000	43.580	.831	.509	.036
Error(frame*risk*reward)	Sphericity Assumed	4667.981	356	13.112			
	Greenhouse-Geisser	4667.981	311.127	15.003			
	Huynh-Feldt	4667.981	356.000	13.112			
	Lower-bound	4667.981	89.000	52.449			

Tests of Between-Subjects Effects

Measure:SignedConfidence

Transformed Variable:Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	1983.917	1	1983.917	22.438	.000	.201

Age_Group	3029.204	2	1514.602	17.130	.000	.278
Order	.043	1	.043	.000	.982	.000
Condition	51.070	2	25.535	.289	.750	.006
Age_Group * Order	356.807	2	178.403	2.018	.139	.043
Age_Group * Condition	337.596	4	84.399	.955	.437	.041
Order * Condition	943.012	2	471.506	5.333	.006	.107
Age_Group * Order * Condition	638.277	4	159.569	1.805	.135	.075
Error	7869.259	89	88.419			

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