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THE INFLUENCE OF HUMOR ON APPROACH AND AVOIDANCE MOTIVATION

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ABSTRACT

Approach and avoidance motivation have been used to study many phenomena, but no research has yet investigated the influence of humor on approach and avoidance motivation. The feelings associated with humor are also associated with situations high in safety and low in threat. These sorts of situations are likely to result in decreases in avoidance motivation. Participants viewed either a humorous video clip or a mundane video clip and then completed a series of self-report measures to assess levels of approach and avoidance motivation. Contrary to expectations, composites of measures of approach and avoidance motivation were not influenced by the viewing of a humorous video clip. On the other hand, some specific items and behavioral measures suggest that the presence of humor is having an influence on motivation. Implications and suggestions for future research are discussed.

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CHAPTER I

INTRODUCTION

Human behavior is motivated. Our motivation drives us to acquire the resources necessary to survive, to avoid things that can cause us harm, and to approach things that give us pleasure. Much research has tried to map and describe human motivation. One of the most prominent current descriptions distinguishes between two independent motivations (e.g., Elliot, 2006). This distinction has been termed in several ways, such as the behavior inhibition system (BIS) and the behavior activation system (BAS) (e.g., Avila, 2001; Park & Hinsz, 2006), appetitive and aversive systems (e.g., Gable, 2001; Gable & Reis, 2001), and perhaps most commonly approach and avoidance motivation (e.g., Elliot, Maier, Moller, Friedman, & Meinhardt 2007; Förster, Friedman, Özelsel & Denzler, 2006; Friedman & Förster, 2000, see also Elliot & Thrash, 2002).

The function of approach and avoidance motivation is to regulate our behavior in ways that maximize our rewards and minimize our punishments (Elliot, 2006). This is where approach motivation drives us towards rewards and pleasure. It does this by making us more attentive to positive stimuli, such as signals of gain and reward. Similarly, it makes us more sensitive to positive memories, showing that information processing is positively biased when the approach system is activated (Gomez & Gomez,

2002; Rusting & Larsen, 1998). As well as making us more sensitive to cues of positive outcomes, approach motivation is likely to promote behaviors that will maximize the gains or positive outcomes of a particular situation (Avila, 2001). In some cases, these are risky behaviors, such as gambling. In particular, because the gains increase as the size of the bet does, increased approach motivation may cause someone to bet more when gambling. Approach motivation causes us to be more sensitive to our accomplishments as well, possibly making someone want to make more bets following a win. Avoidance motivation, on the other hand, drives us away from negative consequences, including pain and punishment. Negative stimuli, such as cues or information signaling threat or punishment, and negative affective information are more likely to increase avoidance motivation and are also more salient when it is increased (Gomez & Gomez, 2002; Rusting & Larsen, 1998). Increased avoidance motivation is likely to make us behave in ways that minimize the losses or negative outcomes of a situation. Continuing with the gambling example, because of the potential losses in gambling, increased avoidance motivation is likely to make someone bet less when gambling, if they choose to gamble at all, because then the potential losses are lowered by a smaller bet or by not betting at all.

Approach and avoidance motivations have been used to examine and describe many different kinds of behavior. For example, motor actions connected to approach motivation have been shown to induce greater creativity (Friedman & Förster, 2000) and motor actions connected to avoidance motivation can reduce food intake (Förster, 2003). Another set of studies showed that people perceiving movement toward them (a perception that induces avoidance motivation) caused them to categorize negative words faster than positive words (Neumann & Strack, 2000). Other research has shown that

curiosity, a characteristically approach-oriented drive state, is associated with judgments of positive outcomes more than negative outcomes; and that fear, a characteristically avoidance-oriented drive state, is linked to judgments of negative outcomes more than positive ones (Maner & Gerend, 2007). Also, current research in our laboratory is examining the influence of group decision making, as mediated by approach and avoidance motivations; adopting a 'safety in numbers' concept (see Park & Hinsz, 2006). Previous studies have not investigated the influence of humor on approach and avoidance motivation. The feelings associated with approach and avoidance motivations are similar to those associated with humor, discussed next.

Feelings of safety and security may lead to a reduction of avoidance activation. If signals and cues of threat cause an increase in avoidance motivation, then signals and cues of a lack of threat, or safety and security, would be expected to induce decreases in avoidance motivation. If increases in avoidance motivation are intended to elicit behaviors reducing or eliminating negative consequences, then when we are in a safe and secure environment, avoidance motivation is not necessary and should be lower.

Similarly, when avoidance motivation is high, we are likely to engage in behaviors that will increase our sense of safety and security. The idea that safety and security induce lower avoidance motivation has been proposed in other places (see Park & Hinsz, 2006).

Descriptions of humor may be extended to incorporate changes in our feelings of safety and security. From a psychological perspective, humor is a process made up of four components: a social context, a cognitive-perceptual process, an emotional response, and the vocal-behavioral expression of laughter (Martin, 2007). Not all humor or laughter occurs in the presence of others, but even when no one is present, the nature of the humor

or laughter is still social. This could be in the form of responding to television characters, something heard over the radio, something read in a book, or the remembering of a humorous event from memory. This social context is often a playful context. It has even been said that humor is a way for people to interact playfully (Martin, 2007). This does not mean that humor cannot have a negative or harmful purpose, such as that described by superiority or disparagement theories of humor (e.g., Gruner, 1997), but the focus here is on the humor that is intended to be playful and not disparaging. When people play and express humor by joking around with one another, they are likely to view their own and others' behaviors light-heartedly, rather than seriously. A major purpose of joking around with others is to create and maintain social bonds with those we feel comfortable with, and to have fun and to feel relaxed. For example, Apter (1991) specifically associated humor with a playful state of mind called the *paratelic* mode, which was contrasted with a more serious, goal-directed telic mode. To produce humor, a cognitive process is also necessary (Martin, 2007). Information must be processed from one's environment or memory and then evaluated as nonserious, playful, and humorous after meaning is processed. Approaches in evolutionary biology have claimed that humor is distinguished by incongruity, unexpectedness, and playfulness; calling humor nonserious social incongruity (Gervais & Wilson, 2005). However, our response to humor is not only intellective; it is also emotional (Martin, 2007). When shown humorous stimuli, positive affect and mood increase (Szabo, 2003) and activation occurs in well-known reward areas of the limbic system (Mobbs, Greicius, Abdel-Azmin, Menon, & Reiss, 2003). The amygdala, a well known emotional center in the brain, is also activated in the presence of laughter (Sander & Scheich, 2001). The last element of humor, laughter, is the expression of the emotion brought about by the intellective processes and social context that yield the experience of humor (Martin, 2007).

This form of humor, or nonserious social play, should be highly associated with feelings of safety and security. Therefore, humor should be associated not only with nonseriousness and playfulness, but also safety and security. Considering these associations, it is reasonable to expect that humor can be used to generate feelings of safety and security. Feelings of safety and security should result in a decrease in avoidance motivation. If the purpose of avoidance motivation is to maximize safety, then signals of safety should cause it to be less active. In the current paper, we set out to test the hypothesis that the perception of humor functions to decrease avoidance by eliciting feelings of safety and security.

This hypothesis could also be oriented in terms of decreasing threat rather than increasing safety. When we feel threatened, avoidance motivation will increase with the intent in guiding our behavior away from potential threats or harm. Stress, tension, or ambiguousness may be cues that suggest negative consequences are possible. The negative consequences are threatening to us, whether they are physical, cognitive, emotional, or social, and the goal then is to reduce this threat. Humor may be used to reduce this threat by also reducing stress or tension. Rather than framing this issue in terms of threat reduction, research on humor typically approaches humor usage as the reduction of stress or tension. Humor has been described as a tension or stress reduction mechanism since the early 1900s (e.g. Freud, 1960 [1905]), and has received much scholarly attention (see Lefcourt, 2001a; or Lefcourt & Martin, 1986, for reviews).

Thorson and Powell (1993) even went so far as to say that "the ability to use humor as a

social lubricant, to ease the tense situation, may be one of the highest forms of uses of humor and also is related to coping or adaptive humor" (p. 15). The reduction of stress, tension, or threat should also induce feelings of safety and security, because signals that negative outcomes are possible are decreased or eliminated.

In addition to the hypothesis that experiencing humor will decrease avoidance motivation, speculations can be made about the influence that humor may have on approach motivation. If humor as nonserious social play is engaged in to induce pleasure and maintain and strengthen social relationships, then it has rewarding aspects. As one theorist stated, "When we engage in humor, we are playing with language and ideas (schemas, scripts) in much the same way that children (and adults) play with physical objects, exploring new and unusual ways of using them, and delighting in these novel applications" (Martin, 2007, p. 109). Thus, experiencing humor is cognitively rewarding, similar to the pleasure obtained from other forms of play. This is also supported by parts of the definition of humor described earlier, namely that exposure to humorous stimuli increases positive mood and affect (Szabo, 2003) and results in activation of well-known reward areas of the limbic system (Mobbs et al., 2003). This is where the experience of humor causes us to feel a pleasant emotional response that has been called amusement, mirth, hilarity, or cheerfulness (Martin, 2007). In effect, the experience of humor is cognitively and emotionally rewarding because its perception results in pleasant feelings.

So, as well as decreasing avoidance motivation to make us feel safer and more secure and reduce threat, the perception of humor may also increase approach motivation. As discussed earlier, approach motivation is sensitive to rewards and is accompanied by a predisposition toward such stimuli (Elliot & Thrash, 2002). Comparably, research has

shown associations between positive affect and approach motivation, and negative affect and avoidance motivation (e.g., Carver & White, 1994; Gomez & Gomez, 2002; Rusting & Larsen, 1998). If the experience of humor results in similar feelings, it is logical to deduce that perceiving humor will also increase approach motivation.

The knowledge gained by demonstrating a relationship between the experience of humor and approach and avoidance motivations has many implications. Humor is not yet a well understood concept, and this information would contribute to the relatively small knowledge base about the form of humor that is of current interest. If humor decreases avoidance motivation, it will not simply reduce the threat we feel and increase our feelings of safety and security; it could also have other effects. It could decrease anxiety (Gray, 1987), reduce our inhibitions, and even make people less protected and more vulnerable (see Avila, 2001). All of these have practical applications for day-to-day behavior, which are described in more detail in the discussion section. In addition, This research could lead to the development of a new theory in which predictions about the influences of humor on thoughts, feelings, and behaviors could be made, because no theory to date specifically predicts such changes.

Once again, we are testing the following: 1) The perception of humor is expected to result in a decrease in avoidance motivation, which will yield decreased feelings of threat and increased feelings of safety and security, and 2) It is also expected that, because of the emotional and cognitive reward that is experienced with humor, approach motivation will increase. These hypotheses were tested by exposing participants to video clips of a stand-up comedian. In a Neutral condition, participants viewed a neutral video clip (of someone delivering a mundane lecture).

CHAPTER II

METHODS

2.1 Participants and procedure

Fifty-five undergraduate psychology students participated individually as part of a course requirement. They were randomly assigned to one of two conditions. In the Humor Group (n = 28), participants viewed a video clip of a stand-up comedian. In the Neutral condition (n = 27), participants viewed a neutral video of a person giving a relatively mundane presentation. The study was administered via computer using MediaLab 2008 software after participants gave their consent. After viewing the video clips, participants completed a series of questionnaire geared towards assessing state levels of approach and avoidance motivation. A demographic questionnaire was completed at the end of each session. The average age of participants was 21 years, ranging from 18 to 34. Fifty-two (95%) of participants reported that their primary language was English. The racial/ethic background of participants was as follows: 28 (50.9%) participants reported being of a White or Caucasian ethnic background, 19 (34.5%) reported being African American, two (3.6%) each reported being Asian and Latino, one (1.8%) reported being of another ethnic background and the one other participant chose not to report their racial/ethnic background.

2.2 Stimuli

To induce the experience of humor in the humor condition, participants viewed a five-minute video clip of a stand-up comedian. Stand-up comedy was chosen over other humorous situations because the situation is relatively controlled and consistent. In typical stand-up comedy, including the clip selected for this study, humor is not used to attack any target, as in the case of some forms of interpersonal sarcasm. So, stand-up comedy is consistent with the form of humor that is of interest here, namely nonserious social play. Television sitcoms and movies, for example, have a wide variety of settings, times, and characters which could have many unintended effects on participants. Stand-up comedy, on the other hand, is simply a person standing on a stage in front of a group of people trying to make them laugh. Furthermore, because the goal of a stand-up comic is to make someone laugh, the chances of a perceiving humor are high for stand-up comedy. In particular, segments of an episode of *Comedy Central Presents* were edited for presentation to participants. Participants saw only one stand-up comedian, Arj Barker.

The primary intent of the Neutral condition will be to have participants view a person talking to them *without* the intent of making them laugh. If the speaker is not trying to make their audience laugh, the chances of them perceiving humor are substantially reduced. Furthermore, segments from this video were selected on the basis that they have very little or no comic value. A video of a National Football League Public Relations (PR) employee, Steve Alic, talking to communication students about his job was obtained. Segments of this video were edited as well.

The stimuli were chosen in a way that enhanced the similarity between the two videos. For example, both the comedian and the PR person are relatively unfamiliar to the

general public (nearly 90% of participants indicated not being familiar with the person that they saw in the video). Using a very popular stand-up comedian, such as Robin Williams, George Carlin, or Bill Cosby was also avoided. This is because people, places, and objects that are more familiar, such a nationally known versus local comedians, are likely to make us feel safer one with which we have never interacted. Familiarity may cause a decrease in avoidance motivation independent of the experience of humor. Also, the Neutral condition is not of a totally unrelated nature. Rather than having participants view footage from National Geographic programs, participants are viewing a person talking to them, just like the stand-up comedian. Furthermore, segments were selected on the basis that they have very little or no chance of increasing avoidance motivation. For example, jokes of a strong sexual, violent, or drug use nature were not included, because these topics could increase avoidance motivation because they are taboo topics for public discussion. One segment of the neutral video was also a precautionary note to his listeners, which was specifically not included because it could cause an increase in avoidance motivation. Also, segments of the Neutral video that made references to the university that participants were attending were not used because of the possible effect of perceived similarity. The film clips were also edited such that they were reasonably close in time duration, approximately five minutes to avoid inducing boredom. Transcriptions of the videos can be found in Appendix A.

2.3 Measures

Appendix B includes a copy of the questionnaire used in the analyses in the order in which participants completed it. The appendix also includes information about which items belong in which subscales. Various scales were included for two reasons. First,

support for the hypotheses from multiple measures would provide convergent validity of the hypotheses. Second, there are many different conceptualizations of approach and avoidance motivation which have yielded many different measures of constructs that are related to approach and avoidance motivation. In some cases the constructs are theoretically different and in some cases the different conceptualizations are used interchangeably. Including various measures can enhance the chances of uncovering the hypothesized relationship, which theoretically follows from the general conceptualization of approach and avoidance motivation.

Carver and White's (1994) BIS-BAS Scales were used. These scales were generated to measure personality constructs. However, the Behavioral Inhibition System (BIS) is a construct highly related to avoidance motivation and the Behavioral Activation System (BAS) is a construct highly related to approach motivation. Research suggests that approach and avoidance motivation are likely to underlie the BAS and BIS, respectively (Elliot & Thrash, 2002). So, here it was treated as a measure of approach and avoidance motivation. The scales are made up of twenty items divided into four subscales, one to measure the BIS and three to measure the BAS. Seven items comprise the BIS subscale (e.g., "I feel worried when I think I have done poorly at something."), whereas four measure BAS Fun Seeking (e.g., "I crave excitement and new sensations."), five measure BAS Reward Responsiveness (e.g., "When good things happen to me, it affects me strongly."), and four measure BAS Drive (e.g., "When I want something, I usually go allout to get it."). For group comparisons, composite scores were generated by summing responses for the items of each of the subscales. To adjust for the trait-level nature of this scale, the directions were modified to so that participants responded to the items based on how they feel "right now, that is, at this present moment" (see Goldberg, et al., 2006). It is hoped that these modified directions will yield a more state-oriented measure than the original. Furthermore, significant differences between the Humor and Neutral groups would suggest that this modified version may be sufficient to make the original trait level measure usable for state level measurements.

Lockwood, Jordan and Kunda's (2002) General Regulatory Focus Measure (GRFM) was also included as an additional indicator of state levels of approach and avoidance motivation. This scale was originally intended to measure similar constructs known as promotion and prevention (Higgins, 1997). However, more recent research has shown that it correlates higher with other measures of approach/avoidance related constructs than promotion and prevention (Summerville & Roese, 2008). These eighteen items are simply split into equal sized sets that measure promotion (approach, e.g., "I frequently imagine how I will achieve my hopes and aspirations.") and prevention (avoidance, e.g., "I often worry that I will fail to accomplish my academic goals."). Once again, responses for promotion (approach) and prevention (avoidance) items are summed to create composites scores for each construct.

A dispositional measure of promotion and prevention was also included to investigate possible differences between the Humor and Neutral groups. This measure, the Regulatory Focus Scale (RFS), consists of ten items that measure two constructs related to promotion (Autonomy and Openness to New Things) and two constructs related to prevention (Sense of Obligation and Orientation to the Expectations of Others) (Fellner, Holler, Kirchler, & Schabmann, 2007). Responses to each of the five promotion items (e.g., "I like to do things in a new way.") were summed to create another promotion

composite, and responses to the five prevention items (e.g., "I often think about what other people expect of me.") were summed to create another prevention composite.

Approach and avoidance motivation have also been theorized to underlie positive and negative affect (Elliot & Thrash, 2002). Thus, a measure of positive and negative affect was also be included; the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). This measure consists of twenty words that describe peoples' feelings (e.g., "interested", "distressed", "excited", "nervous"). Respondents indicate how much each of the words describes their current feelings. In addition to the original twenty items, sixteen items were added that are more specifically representative of approach and avoidance motivation (e.g., "safe", "productive", "anxious", "tense"). One item, "hostile", was also replaced with the word "threatened". From the original twenty items, composite scores were also generated by summing responses to the ten positive affect (PA) words (interested, excited, strong, enthusiastic, proud, alert, inspired, determined, attentive, and active) and ten negative affect (NA) words (distressed, upset, guilty, scared, threatened, irritable, ashamed, nervous, jittery, and afraid).

Several behavioral outcome measures were also included. Participants were presented with two scenarios to which they had to respond. In one scenario, participants were given the opportunity to participate in a raffle where tickets cost \$2. They were also told that they only have \$20 and that their rent is due next week. Humor participants, who were expected to feel safer and less threatened, may be expected to engage in more risky behaviors than Neutral participants; in the form of purchasing more raffle tickets. In the other scenario, participants are presented with three briefcases, where one case contains nothing, one contains \$5, and the last one contains \$10. The participants were then told to

imagine they selected a case and found that it contained \$5. Then, participants were given the opportunity to trade their case. It was emphasized that participants would forfeit their \$5 and walk away with whatever was in the case they select if they chose to trade their case, or that they were forfeiting the opportunity to gain \$10 instead of \$5 if they chose to keep their case. A follow-up question is also included for this scenario, asking participants how satisfied they are with their decision on a seven-point scale (1 = Not at all satisfied, 7 = Extremely satisfied).

Another group of items participants responded to were taken from the International Personality Item Pool (Goldberg, et al., 2006). Forty-four items were selected due to their expected relation to approach (e.g. "I am seeking an adventure." "Many different activities excite me.") and avoidance (e.g. "I respect authority." "I avoid dangerous situations.") motivation. However, no scale was generated from these items. Two items created by the author were also added, "I tend to be cautious rather than risky when I make decisions." and "I always read all of the directions."

A final set of items, other than the demographic items, were included as manipulation checks. Participants in both conditions were asked how much they agreed with statements that the video was funny, humorous, intimidating and whether or not they laughed or chuckled during the video clip on a seven-point Likert-type scale.

2.4 Specific hypotheses

Now that the reader is aware of the specific measures that will be used, more specific hypotheses can be stated. For composites of approach generated from the three BAS scales (Carver & White, 1994), GRFM (Lockwood, Jordan & Kunda, 2002), and RFS (Fellner, et al., 2007), participants in the Humor group were expected to have higher

scores than participants in the Neutral group. For composites of avoidance generated from the BIS scale (Carver & White, 1994), GRFM (Lockwood, Jordan & Kunda, 2002), and RFS (Fellner, et al., 2007), participants in the Neutral group were expected to have higher scores than participants in the Humor group. As for the PANAS (Watson, Clark, & Tellegen, 1988), participants in the Humor groups were expected to report higher PA and lower NA than participants in the Neutral group.

The behavioral measures are approached differently. In the raffle scenario, Humor participants are expected to buy more tickets than participants in the Neutral condition. In the case scenario, Humor participants are expected to trade their case more often than Neutral participants. As for the follow-up question, it is expected that Humor participants that trade their case will be more satisfied than those that did not, and that Neutral participants that keep their case should be more satisfied than those that traded it.

No scale was generated from the items taken from the International Personality Items Pool (Goldberg, et al., 2006). Comparisons were on an item-by-item basis, where predictions depended on the individual items.

CHAPTER III

RESULTS

3.1 Manipulation checks

As a manipulation check, participants were asked how much they agreed with these two statements on seven-point Likert-type scale: "I found the video clip funny", and "I found the video clip humorous". Results show that the manipulation was effective, where Humor participants found their video clip funnier and more humorous than those in the Neutral condition; funny: t(53) = 5.77, p < .001 (Humor: m = 4.46, sd = 1.8; Neutral: m = 0.001) 2.00, sd = 1.4), humorous: t(53) = 7.67, p < .001 (Humor: m = 4.61, sd = 1.7; Neutral: m = 4.61) = 1.74, sd = .9). Participants were also asked about their laughing behavior with two items. These were responded to with the same seven-point Likert-type scale. As with the "funny" and "humorous" items, the Humor group responded much higher on average than the Neutral group, indicating that the Humor participants (m = 4.86, sd = 1.9) laughed more than the Neutral participants (m = 1.44, sd = .9), t(53) = 8.62, p < .001; and that the Humor participants (m = 4.79, sd = 1.8) chuckled more than the Neutral participants (m = 1.30, sd = .5), t(53) = 9.61, p < .001. One more item also assessed how intimidating the participants found the video. This was included to suggest that neither of the video clips were likely to have caused an increase in avoidance motivation. It was

expected that participants in the two groups would not differ in how intimidating they found their video clips; which was confirmed via t-test, t(53) = .22, p = .83. The statistics, means and standard deviations for the above tests are summarized in Table I.

Table 1. Manipulation check summary.

<u>Item</u>	t(53)	Sig.	Humor mean (sd)	Neutral Mean (sd)
I found the video clip funny.	5.768	< .001	4.46 (1.75)	2.00 (1.39)
I found the video clip humorous.	7.666	< .001	4.61 (1.73)	1.74 (0.90)
I laughed during the video clip.	8.624	< .001	4.86 (1.86)	1.44 (0.89)
I chuckled during the video clip.	9.595	< .001	4.79 (1.83)	1.30 (0.47)
I found the video clip intimidating.	0.215	.831	1.96 (1.04)	2.04 (1.45)

One possible confound was whether or not participants found the video clips funny or humorous. It is possible that those participants that did not find the video clip funny would not display the expected effects. This would specifically be the case if it is the experience of humor that is necessary for the changes to occur. If the experience of humor is not necessary, then the mere presence of humor or intent to be humorous may be all that is necessary for an increase in approach and decrease in avoidance motivation to occur. A comparison of those participants that agreed to the statements that the video was funny and humorous (n = 18) to those that did not (n = 10) did not support this prediction. Participants that found the humorous video funny did not differ from those that did not on the dependent measures, and were thus collapsed for all of the following analyses.

3.2 BIS-BAS Scales

Scores for the BIS scale and three BAS subscales (Carver & White, 1994) were analyzed with independent samples t-tests. To test the first hypothesis, that the perception of humor will result in a decrease in avoidance motivation, BIS composites ($\alpha = .68$) were compared between the Humor (m = 19.46, sd = 3.06) and Neutral (m = 18.52, sd = 19.46) and Neutral (m = 18.52) and Neutral (m = 18.52).

3.78) groups, t(53) = 1.02, p = .311. To test the second hypothesis, that Humor participants will experience increased approach motivation, each of the three BAS subscales were compared between groups; BAS Fun Seeking ($\alpha = .78$): t(53) = 1.86, p = .069 (Humor: m = 12.46, sd = 1.7; Neutral: m = 11.37, sd = 2.6); BAS Reward Responsiveness ($\alpha = .42$): t(53) = .45, p = .516 (Humor: m = 16.50, sd = 1.9; Neutral: m = 16.81, sd = 1.6); BAS Drive ($\alpha = .74$): t(53) = .62, p = .535 (Humor: m = 11.29, sd = 1.9; Neutral: m = 10.93, sd = 2.4).

None of these analyses were significant, although the difference between groups on the BAS Fun Seeking subscale was nearly significant.

3.3 General Regulatory Focus Measure

The promotion (approach) and prevention (avoidance) composites from Lockwood, Jordan and Kunda's (2002) measure were also compared. Prevention scores (α = .74) did not differ between the Humor (m = 50.07, sd = 14.08) and Neutral (m = 47.89, sd = 11.63) groups, t(53) = .625, p = .534; and neither did promotion scores (α = .83): t(53) = .359, p = .721 (Humor: m = 68.18, sd = 9.67, Neutral: m = 67.22, sd = 10.11), failing to provide support for either of the hypotheses.

3.4 Regulatory Focus Scale

Fellner and colleague's (2007) Regulatory Focus Scale yielded some interesting results. For the composite created from the five prevention (avoidance) items (α = .16), there were no differences between the Humor (m = 26.23, sd = 3.52) and Neutral (m = 26.93, sd = 3.70) groups, t(53) = .62, p < ..537. On the other hand, Neutral participants (m = 25.30, sd = 3.46) reported higher scores than the Humor participants (m = 22.93, sd =

3.39) on the composite made from the five promotion (approach) items (α = .29), t(53) = 2.56, p < .013.

3.5 International Personality Item Pool items

Of the 44 various items taken from the International Personality Item Pool (Goldberg, et al., 2006), which were expected to measure constructs related to approach and avoidance, only five differed significantly across the conditions. The following items differed in a direction not predicted in the hypotheses: "I am comfortable with myself", t(53) = 2.57, p = .013 (Humor: m = 5.25, sd = 1.96 vs. Neutral: m = 6.30, sd = .82); "I am ready for change", t(53) = 1.70, p = .095 (nearly significant, Humor: m = 5.11, sd = 1.97 vs. Neutral: m = 5.85, sd = 1.17); "I avoid dangerous situations", t(53) = 2.04, p = .047 (Humor: m = 5.00, sd = 1.44 vs. Neutral: m = 4.11, sd = 1.78); "I feel that my life lacks direction.", t(53) = 1.75, p = .086 (approaching significance, Humor: m = 3.32, sd = 1.74 vs. Neutral: m = 2.59, sd = 1.31). However, one item did differ in the expected direction: "I dislike the unknown", t(53) = 2.13, p = .038 (Humor: m = 3.04, sd = 1.99 vs. Neutral: m = 4.11, sd = 1.74). These results are summarized in Table II.

Table II. Summary of IPIP Analyses

Item	t	Sig.	Means: Humor (sd)	Neutral (sd)
Significant Items:		_		
I dislike the unknown.	2.131	.038	3.04 (1.99)	4.11 (1.74)
I avoid dangerous situations.	2.037	.047	5.00 (1.44)	4.11 (1.78)
I am comfortable with myself.	2.569	.013	5.25 (1.96)	6.30 (.823)
Nearly Significant Items:				
I am ready for change.	1.698	.095	5.11 (1.97)	5.85 (1.17)
I feel that my life lacks direction.	1.748	.086	3.32 (1.74)	2.59 (1.31)

3.6 PANAS with additional items

There were some differences on Watson, Clark, and Tellegen's (1988) Positive And Negative Affect Schedule. The reliability of each ten-word scale was acceptable, PA: $\alpha =$

.88, NA: $\alpha = .60$. There were no differences in condition on PA scores, t(53) = 1.26, p = .212 (Humor: m = 24.00, sd = 6.79 vs. Neutral: m = 21.52, sd = 7.75) or on NA scores, t(53) = 1.22, p = .229 (Humor: m = 14.79, sd = 3.52 vs. Neutral: m = 13.67, sd = 3.28). However, further analyses show that for certain items, differences between conditions emerged. Contrary to hypotheses, these avoidance-related words were rated higher by Humor participants than Neutral participants: nervous: t(53) = 2.00, p = .050 (Humor: m = 2.32, sd = 1.12 vs. Neutral: m = 2.19, sd = 1.21); jittery: t(53) = 2.09, p = .042 (Humor: m = 1.93, sd = 1.12 vs. Neutral: m = 1.37, sd = .84); tense: t(53) = 2.21, p = .031 (Humor: m = 1.93, sd = 1.05 vs. Neutral: m = 1.41, sd = .64); anxious: t(53) = 1.78, p = .081 (approaching significance, Humor: m = 2.46, sd = 1.40 vs. Neutral: m = 1.81, sd = 1.30); depressed: t(53) = 1.88, p = .065 (approaching significance, Humor: m = 1.46, sd = .92 vs. Neutral: m = 1.11, sd = .32).

Consistent with hypotheses, the following approach-related words were rated higher by Humor participants than Neutral participants: energized: t(53) = 1.92, p = .060 (approaching significance, Humor: m = 2.79, sd = 1.34 vs. Neutral: m = 2.15, sd = 1.10); elated: t(53) = 1.79, p = .080 (approaching significance, Humor: m = 2.07, sd = 1.12 vs. Neutral: m = 1.59, sd = .84); delighted: t(53) = 2.25, p = .029 (Humor: m = 2.96, sd = 1.26 vs. Neutral: m = 2.22, sd = 1.19).

One other word was also rated significantly higher by Humor participants (m = 3.75, sd = 1.08) than Neutral participants (m = 2.93, sd = 1.30), safe: t(53) = 2.57, p = .013. This is particularly interesting because it is the most significant of all of the PANAS items, and is most consistent with hypotheses. Participants perceiving humor were

expected to feel safer, and they reported this quite noticeably. A summary of the analyses for the PANAS items follows as well.

Table III. Summary of PANAS Analyses

Item	t	Sig.	Means: Humor (sd)	Neutral (sd)
Significant Items:				
Nervous	2.004	.050	2.32 (1.12)	2.19 (1.21)
Jittery	2.086	.042	1.93 (1.12)	1.37 (.84)
Safe	6.587	.013	3.75 (1.08)	2.93 (1.30)
Delighted	2.245	.029	2.96 (1.26)	2.22 (1.19)
Tense	2.214	.031	1.93 (1.05)	1.41 (.64)
Nearly Significant Items:				
Anxious	1.780	.081	2.46 (1.40)	1.81 (1.30)
Energized	1.923	.060	2.79 (1.34)	2.15 (1.10)
Depressed	1.883	.065	1.46 (.92)	1.11 (.32)
Elated	1.786	.080	2.07 (1.12)	1.59 (.84)
Scales (not significant):				
Postive Affect (scale)	1.264	.212	24.00 (6.79)	21.52 (7.75)
Negative Affect (scale)	1.218	.229	14.79 (3.52)	13.67 (3.28)

3.7 Behavioral outcome measures

These two items were included to see if differences in approach and avoidance may manifest themselves in behavioral measures. For example, Humor participants bought more tickets (m = 2.93, sd = 2.58) than Neutral participants (m = 1.78, sd = 1.78), however, the effect was only almost significant, t(53) = 1.92, p = .061. A Chi-square test was used to see if Humor participants engaged in the riskier behavior of trading their case more often than Neutral participants. This was the case, $\chi^2(53) = 3.06$, p = .069, although the effect was only near significant. A frequency matrix is also shown in Table IV.

Table IV. Frequency Matrix for Case Trading/Keeping.

		<u>Condition</u>				
		Humor	Neutral	Totals		
Action	Keep Case	10 (38%)	16 (62%)	26 (47%)		
Action	Trade Case	18 (62%)	11 (38%)	29 (53%)		
	Totals	28	27	55		

In addition, closer inspection shows that this relationship was quite distinct; over 60% of Humor participants traded their cases whereas only 40% of Neutral participants did. This means that one and a half times as many Neutral participants traded their case in the Humor condition. A follow-up question asked participants how satisfied they were with their decision to keep or trade their case on a seven-point scale. This was used as a dependent variable in a 2 (Condition: Humor vs. Neutral) × 2 (Action: keep case vs. trade case) analysis of variance (ANOVA) in which Humor participants were expected to be more satisfied with a choice to trade their case and Neutral participants should be more satisfied with a choice to keep their case. This analysis is summarized in Table V, and shows that the expected ratings were not found. There was a main effect of condition, F(1, 51) = 4.52, p = .038, where Humor participants (m = 4.64, sd = 1.28) were less satisfied with their decisions than Neutral participants (m = 5.30, sd = 1.31), but no main effect for the action taken, F(1, 51) = 1.25, p = .268. The interaction between Condition and the Action taken was also not significant, F(1, 51) = .64, p = .426. On the other hand, an ad-hoc follow-up t-test between Humor and Neutral participants that kept their cases was nearly significant, t(53) = 1.92, p = .061. This was where Neutral participants (m =5.25, sd = 1.34) were more satisfied than Humor participants (m = 4.20, sd = 1.28).

Table V. ANOVA Table

Source	Df	SS	MS	F	Sig.
Condition	1	7.525	7.525	4.519	.038
Action	1	2.085	2.085	1.252	.268
Condition*Action	2	1.071	1.071	.643	.426
Error	51				
Total	55				

3.8 Funny/humor correlations

To investigate for a relationships rather than differences between the experience of humor and changes in approach and avoidance motivation, correlational analyses were also performed. In these analyses, responses to the manipulation check items "I found the video clip funny" (Funny) and "I found the video clip humorous" (Humorous) were predictor variables to responses on a variety of the dependent measures, serving as criterion variables. A summary of these correlations can be found in Table VI.

Relatively few of these correlations were significant. The BAS Reward-Responsiveness subscale and BIS scale of Carver & White's (1994) BIS-BAS Scales did not correlate with the Funny (BAS Reward-Responsiveness: r = -.13, p = .18, BIS: r = -.09, p = .27) or Humorous (BAS Reward-Responsiveness: r = .17, p = .10, BIS: r = .04, p = .38) items. Also, the BAS Fun-Seeking and BAS Drive scales did not correlate with the Humorous item: BAS Fun-Seeking, r = .22, p = .05 (near significant) and BAS Drive, r = .10, p = .23; but did correlate with the Funny item: BAS Fun-Seeking, r = .26, p = .03and BAS Drive, r = .23, p = .04. None of the composites from Lockwood, Jordan and Kunda's (2002) GRFM correlated with the Funny (Promotion/Approach: r = .15, p = .13, Prevention/Avoidance: r = .06, p = .34) or Humorous (Promotion/Approach: r = .12, p = .12.19, Prevention/Avoidance: r = .02, p = .45) items. This was also the case with Fellner and colleagues' (2007) RFS with the exception of the relationship between the Promotion (Approach) subscale and the Humorous item: r = -.23, p = .05 (others, Funny: r = -.13, p = .17 for Promotion/Approach and r = .12, p = .20 for Prevention/Avoidance; Humor: r = .05, p = .37 for Prevention/Avoidance). In contrast, all of the correlations between the Positive Affect scale (Funny: r = .31, p = .01; Humor: r = .34, p < .01) and Negative

Affect scale (Funny: r = .19, p = .08, near significant; Humor: r = .25, p = .03) approached significance.

As for the behavioral measures, as responses on the Funny and Humorous items increased, tickets sales did not necessarily increase, Funny: r = .21, p = .07 (near significant); Humorous: r = .09, p = .25. Similarly, as responses on the Funny and Humorous items increased, participants were not more likely to trade their case (a pointbiserial correlation): Funny: r = .18, p = .10 (near significant); Humorous: r = .13, p = .10.25.

Table VI. Summary of Correlations for All Participants

	Predict	or Varia	<u>lble</u>		
Criterion Variable	Funny: r	p	Humorous:	r	p
BAS Reward-Responsiveness	126	.180		174	.103
BAS Fun-Seeking	.257*	.029		.224	.050
BAS Drive	.233*	.043		.104	.225
BIS	086	.266		.041	.384
Promotion (GRFM)	.152	.134		.122	.187
Prevention (GRFM)	.057	.340		.016	.454
Promotion (RFS)	129	.173		227*	.048
Prevention (RFS)	.117	.198		.045	.373
Positive Affect	.311*	.010		.337**	.006
Negative Affect	.194	.078		.254*	.031
Number of Tickets Purchased	.207	.065		.094	.248
Case kept (0) or traded (1)	.177	.099		.133	.248

All of these correlational analyses were also performed when only considering participants in the Humor group. These analyses are summarized in Table VII below. As can bee seen, when only considering the Humor participants, only the Positive Affect scores correlated with the Funny (r = .40, p = .02) and Humorous (r = .42, p = .01) items. This specifically supports research showing that being exposed to humorous stimuli is related to increases in positive affect and mood (Szabo, 2003). In particular, this analysis

^{* =} significant at p < .05 level. ** = significant at p < .01 level.

suggests that the funnier or more humorous the stimuli are, the greater the increase in positive affect may be.

Table VII. Summary of Correlations for Humor Participants

	Predict	<u>or Varia</u>	<u>ble</u>		
Criterion Variable	Funny: r	p	Humorous:	r	p
BAS Reward-Responsiveness	072	.358		062	.378
BAS Fun-Seeking	.050	.401		.078	.348
BAS Drive	.127	.260		.127	.260
BIS	111	.287		048	.404
Promotion (GRFM)	.172	.191		.193	.163
Prevention (GRFM)	009	.482		002	.496
Promotion (RFS)	057	.387		075	.353
Prevention (RFS)	.197	.157		.253	.097
Positive Affect	.395*	.019		.416*	.014
Negative Affect	.029	.442		.028	.443
Number of Tickets Purchased	074	.354		173	.190
Case kept (0) or traded (1)	.114	.281		.091	.323

n = 28

3.9 Other analyses

In an effort to better understand the relationship between viewing the humorous video clip and approach and avoidance motivation, more exploratory analyses were performed. This was also warranted by the significant difference between Humor and Neutral participants reported feelings of safety. Feelings of safety caused by the experience of humor is firmly expected by theory and support from the PANAS item "safe" suggests that there could be more going on which may be better understood by a more thorough analysis of the some of the scales.

For example, one of the BAS Fun Seeking items was agreed with more by Humor participants (m = 2.93, sd = .60) than by Neutral participants (m = 2.44, sd = .85). For the item "I will often do things for no other reason than that they might be fun", t(53) = 2.45, p = .018. An increase in approach motivation would be expected to produce this effect. Also, the scale reliabilities of the Regulatory Focus Scale (Fellner et al., 2007) were quite

^{* =} significant at p < .01 level.

low (prevention: α = .16, promotion: α = .29). This prompted an analysis of each of the items for differences between conditions. One item, "Rules and regulations are helpful and necessary for me", was responded to in a way consistent with hypotheses. This was where Neutral participants (m = 5.59, sd = 1.31) responded higher than Humor participants (m = 4.39, sd = 1.57), t(53) = -3.07, p = .003. This makes sense because people lower in avoidance motivation are likely to feel safer and more secure, which would make it less necessary for there to be rules and regulations present to restrict behavior. A summary of these analyses and earlier ones of these scales are shown in Table VIII.

Table VIII. Summary of BIS-BAS Scale and RFS Analyses

Scale: BIS-BAS Scales (Carver &	. White.	1994)
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Item	t	Sig.	Means: Humor (sd)	Neutral (sd)
Significant Items:		Ü		
I will often do things for no other				
reason than that they might be fun.	-2.447	.018	2.93 (.60)	2.44 (.85)
Nearly Significant Items:				
When I'm doing well at something,				
I love to keep at it.	-1.894	.064	3.07 (.90)	3.52 (.85)
BAS Fun Seeking	1.855	.069	12.46 (1.69)	11.37 (2.60)
Cum of googles on				

Sum of scores on:

Scale: Regulatory Focus Scale (Fellner, et al., 2007)

<u>Item</u>	t	Sig.	Means: Humor (sd)	Neutral (sd)
Significant Items:		Ü	, ,	
I generally solve problems creatively.	-3.701	.003	4.39 (1.57)	5.59 (1.31)
Rules and regulations are helpful and				
necessary for me.	-2.690	.010	4.86 (1.35)	5.74 (1.06)
Promotion subscale	-2.564	.013	22.93 (3.39)	25.30 (3.46)
C C				

Sum of scores on:

Nearly Significant Items:

I often think about what other people

r - r				
expect of me.	1.784	.080	5.43 (1.45)	4.67 (1.71)

I crave excitement and new sensations.

I will often do things for no other reason than that they might be fun.

I'm always willing to try something new if I think it will be fun.

I often act on the spur of the moment.

I prefer to work without instructions from others.

I generally solve problems creatively.

Rules and regulations are helpful and necessary for me.

I like to do things in a new way.

I like trying out lots of different things, and am often successful at doing so.

CHAPTER IV

DISCUSSION

4.1 Current research

It was expected that the perception of humor would cause a decrease of avoidance and increase of approach motivations. This was expected because many of the feelings associated with humor are also associated with low levels of avoidance motivation and high levels of approach motivation. In particular, humor, as used in the current study, is characterized as being playful and nonserious. This also suggests that humor is characteristic of safe, secure, nonthreatening situations. Avoidance motivation is sensitive to threat and safety, driving our behavior towards a reduction of threat and maximizing safety. If this is the case, then the experience of humor should elicit feelings of safety and a lack of threat, which should result in lower levels of avoidance motivation. The experience of humor also may include a cognitive reward and may yield positive emotions. If this is the case, then the experience of humor should also be related to an increase in approach motivation, because approach motivation is associated with positive affect and is concerned with obtaining rewards and maximizing pleasure. It is also possible that the mere presence of humor may be sufficient to cause these effects.

The hypotheses were as follows: participants viewing a humorous video clip were expected to display lower levels of avoidance and higher levels of approach than participants that viewed a video clip of a mundane lecture. This was only loosely supported by some questionnaire items and marginally by the behavioral measures. What is perhaps most impressive is the subtlety of the manipulation. The only difference between the conditions was the nature of the videos. Both included a single individual talking for about five minutes. But where the Neutral participants saw someone talk about his job in public relations for educational purposes, the Humor participants were watching someone trying to make them laugh. This subtle manipulation was able to cause the groups to display differences in a series of places. For example, Humor participants reported feeling more delighted and safer, and may also have been feeling more energized and elated than Neutral participants. Also, Humor participants endorsed views like "I will often do things for no other reason than that they might be fun" more than Neutral participants. There was also a trend of Humor participants scoring higher on the BAS subscale of Fun Seeking, suggesting that they may have been more interested in new rewards and may be more open to approaching a potentially rewarding event on the spur of the moment (Carver & White, 1994). Humor participants also agreed less with the statement "I dislike the unknown" than Neutral participants. If Humor participants experienced a decrease in avoidance motivation, they would be expected to be less vigilant and less alert of their environment because of increased feelings of safety and security and decreased feelings of threat. If this is the case, then they should feel less wary or worried about things that could go wrong in their environment, such as 'the unknown'. The decreased endorsement of this statement is consistent with hypotheses,

because a decrease in avoidance motivation is also consistent with the decreased endorsement of the statement, "I dislike the unknown".

One approach to humor suggests that the experience of humor causes an increase in generalized arousal (Martin, 2007). This would explain why Humor participants responded higher than Neutral participants on some of the other PANAS items. For example, the words "nervous", "jittery", "anxious", "energized", "elated", "delighted", and "tense" were all rated higher by Humor participants. This may be because of an increase in generalized arousal, which could obscure effects on approach and avoidance motivation. This is something that could be teased apart with future research. By including some measure or measures of generalized arousal, such as breathing rate, heart rate, or perhaps body temperature or galvanic skin response, this could be separated from changes in approach and avoidance motivation.

It is very unlikely that there was something about the humor video that caused an increase in avoidance. It is also unlikely that something in the Neutral video cause an increase in avoidance. In addition to being asked if they agreed that the video was humorous and funny, participants were also asked if they agreed that the video was intimidating. The average response was 2.00, which is equal to the option of "Disagree" to the video being intimidating. In addition, there was no difference between the Humor (m = 1.96, sd = 1.04) and Neutral (m = 2.04, sd = 1.45) conditions in response to this item, t(53) = .215, p = .831. This result suggests that neither group experienced anything that made them feel intimidated. If neither group was intimidated, then no increases in avoidance would be expected, and no increase in avoidance could have caused any of the effects.

These results, and even more particularly the behavioral measures, indicate that the presence or experience of humor is influencing peoples' feelings in ways consistent with changes in approach and avoidance motivation.

4.2 *Implications*

If our subtle manipulation shows that exposure to stimuli that are meant to be humorous is influencing our feelings and likely also approach and avoidance motivation, there are speculations that may be made about peoples behavior when humor is present or when humor is experienced.. The behavioral measures are most indicative of this relationship. Instead of investigating participants' self-reported differences in their feelings, the behavioral measures focused on the behavioral outcomes of the changes due to exposure to the videos. Humor participants (m = 2.93) were willing to buy more raffle tickets than the Neutral participants (m = 1.78), although the effect only approached significance (p = .06). In fact, the Humor participants bought more than one and a half times as many tickets as the Neutral participants. This is also impressive in terms of how much money they were actually spending, because the tickets were \$2 each. Neutral participants were spending less than a quarter of their money (\$3.56), whereas Humor participants were spending more than a quarter of it (\$5.86). This is when the only difference between these conditions was the difference between the videos. The effect may be small and it may only be a difference of one or two tickets, but a willingness to purchase one and a half times as much as the other group and spend over a quarter of ones money-on-hand is a very meaningful amount. This was also when participants were told that their "rent is due next week". This adds the stipulation that participants know that they have something important for which they need their money. That humor

participants were more open to spending their money suggests that they are less worried about paying their rent. These participants are apparently not worried about the possible dangers of not having the money necessary for their rent, or are less concerned about the negative consequences of not paying it on time.

Now consider this difference and how it may apply to real-life situations. When dining out, if a server uses humor while interacting with their customers, they may be likely to give more money for a tip. This may be regardless of the size of the bill, which would be similar to the rent being due next week. The presence of humor is related to an increase in spending, regardless of expenditures that are required. The raffle investment is also a risky decision. Each ticket has only a 1:100 chance of winning, which Humor participants may view as a better chance than Neutral participants. This was not specifically investigated, but could have been by adding a follow-up question such as: "How much do you agree with the following statement: I have a chance at winning this raffle" or perhaps by asking participants to quantify their chances: "What do you think the chances are that you will win this raffle?" Once again, these were not investigated, but it would be expected that Humor participants would agree more than Neutral participants that they have a chance at winning the raffle, and they would be expected to report better chances of winning than Neutral participants. This would even be expected if the Humor participants did *not* buy more tickets than the Neutral participants. Higher ratings could simply be based upon the buying of more tickets, but if the Humor participants feel more sensitive to rewards or have a greater desire for obtaining them (increased approach motivation) and decreased feelings of the threat of losing their money (decreased avoidance motivation) they may feel that they have better chances of winning regardless

of the number of tickets that they purchase. This could also be the case in real raffle or lottery situations. Including some sort of humor or comedy when marketing a lottery or raffle could increase ticket sales. This might even be the case if lottery or raffle hosts use self-deprecating humor. Most people realize that their chances of winning are small, but including a joke that emphasizes this (e.g., "As our jackpot increases, your chances of winning are going down! But the jackpot only increases as you buy more tickets! So come now, and maximize your chances of not winning!) could still cause people to buy more. Similar to the scenario participants in engaged in here, people in real lotteries may spend more regardless of the contingency that chances of winning are very small, and they may feel that their chances of winning are greater than someone who is not exposed to humor. In addition, there was a nearly significant positive correlation between how funny participants found the person in the video to how many tickets they bought. This suggests that the funnier that people find someone or something, the more they may be willing to invest in these risky decisions.

The other situation, the case-trading scenario, also suggests that the exposure to humor may be related an increase in making the riskier decision. In this scenario, 20% or one-fifth more Humor participants traded their case than Neutral participants, and this was also one and a half times as many participants in the Humor as in the Neutral condition. This effect also only approached significance, but if one and a half times as many Congressmen agree to pass a bill because there was humor present before the vote than if there was not, it's going to make a difference. It could even make a majority difference, such as with the percentages in this study. Only 40%, or noticeably less than half, traded their case in the Neutral condition; whereas 60%, which is noticeably more than half, did

in the Humor condition. Forty percent is not likely to get a bill passed, but 60% could. This is just one example of how these trends, though not significant, may still impact important decisions. It would be interesting to see how people behave in these situations if there had been real money at their disposal, such as if participants were being paid to participate and were given the opportunity to use their money in these situations. In summary, the presence or experience of humor could change our behavior in day-to-day activities like buying lottery tickets and also larger decisions, such as those made by groups of people like Congress.

The relationship between humor and motivation may also relate to differences in dualprocess approaches to motivated cognition (Chen, Shechter, & Chaiken, 1996). When high on approach motivation, we are more eager to obtain rewards and reach our goals, and may employ more heuristic or automatic processing (Higgins & Spiegel, 2004). When high on avoidance motivation, we are more vigilant and attentive in an effort to avoid punishment and failure, and may engage in more systematic or controlled processing (Higgins & Spiegel, 2004). If the presence or experience of humor causes an increase in approach motivation and a decrease in avoidance motivation, then people should also engage in more heuristic and less systematic processing during goal pursuit. Exposure to humor would then also be expected to influence decision making (e.g., Montgomery, 2001), where increased heuristic processing may lead to more nonreflective decision making. This exposure would also be expected to influence the development of social inferences, where research suggests that our motivation (e.g., approach and avoidance) and processing (heuristic vs. systematic) influence our desire to retain positive self-images (Dunning, 1999), our tendency to use stereotypes (Kunda & Sinclair, 1999),

and our evaluations of marriage partners (Murray, 1999; see also Suls, 1999 and Newman, 1999).

Changes in motivation that influence our motivated cognition may also explain some of the effects shown in the current study. For example, Neutral participants endorsed the statement "I generally solve problems creatively" more than Humor participants. This would be expected because increased systematic processing should improve the creativity with which problems are solved. When we engage in more heuristic processing, we are going to be looking for simply more straightforward solutions to problems, rather than creative or elaborate solutions. Decreases in avoidance motivation are also consistent with these changes. As avoidance motivation decreases, we may become less vigilant and attentive to detail, which would inhibit the discovery of unique or creative solutions and leave us more likely to search for and discover more typical or direct and heuristic-like solutions.

These implications could impact virtually all behavior, even the simple activities of daily living. If humor does reduce avoidance and make us feel safe, more secure and less threatened, we may not only feel more relaxed after perceiving humor, but also more vulnerable. This may help explain why humor helps us create and maintain relationships (Shiota, Campos, Keltner, & Hertenstein, 2004). We want to feel safe with those people with which we have relationships, and by sharing humor, we increase our feelings of safety with those close to us. This also has implications for interpersonal attraction. By using humor, therefore decreasing avoidance and increasing approach, someone may become more likely to give out their phone number. Furthermore, using humor may increase how attracted someone is to another. It may be argued that it is important to feel

safe with a significant other, which can be done by inducing feelings of safety and security (i.e. by using humor).

In a similar way, humor can be used as social currency (Neuendorf, Skalski, Jeffres, & Atkin, 2007). When creating and maintaining relationships, we use humor as tool, method or ability in social interaction. However, we do not use humor as our only tool; someone overusing humor may be perceived as a clown or someone who can't take anything seriously. We use humor in social interaction in a limited fashion, just as someone would use limited amounts of glue to attach two objects to one another.

The reduction of avoidance and increase in approach can explain many interpersonal functions of humor (e.g., self-disclosure, social probing, norm violation, decommitment, social norms, hierarchy maintenance, group cohesion, see Martin, 2007).

Using humor could be a way of decreasing anxiety. This is particularly relevant for people experiencing test anxiety (e.g., Benson & El-Zahhar, 1994). Similar to increasing feelings of safety and security or decreasing feelings of threat, using humor may decrease anxiety. This could help many people high on test anxiety reduce the effects of their anxiety on their performance. Also, if humor decreases peoples' anxiety and inhibitions, it may make them more comfortable to ask others for information leading to an interpersonal relationship, such as a phone number. The use of humor would have a two-prong effect here for someone: as well as decreasing their own anxiety and inhibitions, they could also, as discussed earlier, make an acquaintance more comfortable and open to giving their phone number. This example also illustrates humor acting as social currency, where the gentleman is using humor to build a relationship with the female. These are

just a couple of many topics that future research could investigate, which is discussed next.

4.3 Limitations

However, many aspects of this research also limit how it can and should be applied to day-to-day behavior. One notable distinction is the difference between whether these effects are related to the experience of humor, the presence of humor, or the presence of humorous intent. These are each different, but were not differentiated or analyzed separately in this experiment. This being the case, it is difficult to pinpoint which of the three is related to the changes in approach and avoidance motivation. People may only need to be in a situation where humor is present to experience a decrease in avoidance motivation and an increase in approach motivation. It may take the full perceptual and cognitive process for the changes to occur. And, it may simply be enough if there is humorous intent, that is, someone is trying to be funny. We showed here that there were no differences between those Humor participants that found the video clip funny and those that did not. This suggests that it is not the mere presence of humor, but that some cognitive process is necessary. However, if a person detects the humorous intent, they may have experienced demand characteristics that led to their higher ratings of Funny and Humorous in the manipulation check items. This should be taken into account when making generalizations to daily behavior. There may not simply need to be something humorous on the radio or television, we most likely need to be processing it on some level and identify it as being intended to be funny or humorous, in order for it to influence our behavior.

In addition to the vague differentiation between the experience of humor and humorous intent, this study as a whole has taken a narrow approach to humor. Here, humor is being treated like humorous intent. Once it was showed that the Humor participants did not differ on the dependent measures due to differences in whether or not they found Arg Barker funny, they were collapsed. This assumes that it may be merely the presence of humorous intent, not necessarily the full experience of humor (including the emotion expression of laughter), may be sufficient to cause changes in approach and avoidance motivation. Just as well, it could be the physical experience of laughter that is necessary to cause the changes in approach and avoidance. A careful review of the humor literature shows that humor and laughter are treated as distinct entities (see Martin, 2007). This is largely because laughter often accompanies behaviors and cognitions that are not humorous. For example, one group of researchers (Stillman, Baumeister, and DeWall, 2007) showed that people in positions of lower power laughed more than people in high power positions. They explained these results as the low power participants using laughter to promote social bonding and elicit liking, such as in ingratiation. The research reported here suggests that the experience of humor may be used to reduce the threat or lack of safety of being in a lower power position, however, it may simply be laughter that is necessary. Nervous laughter is used in many situations, not only power. When being introduced to strangers, during a job interview, or when establishing common ground, laughter may be used to release tension, rather than as a response to humor. As was explained earlier, this may reduce the tension and threat of a situation because it elicits feelings of playfulness and nonseriousness. The interlocutors are establishing that there is no danger or threat or possibility of negative outcomes in the situation so as to establish a safe relationship.

Also, this research is limited to the comedian shown, and cannot be immediately generalized to other comedians or other situations where humor is experienced. However, the rationale given in this study suggests that the only difference between the two conditions is the presence of humor. If this is the case, then the findings can be carefully generalized to other situations comparing the presence of humor and a lack thereof. In any case, replications of this study employing different humor conditions could enhance this generalizability.

The benign nature of stand-up comedy, that there is a person standing on a stage with a microphone speaking to an audience, may also make it difficult to generalize these results to other situations where people perceive humor. For example, the effects may not be manifest if people are simply listening to humor, or watching movies, TV sitcoms, or humorous talk shows (e.g., David Letterman, Jay Leno types of shows). Future research could replicate this research with situations other than stand-up comedy.

Some literature suggests that people do not respond the same to male and female humorists (Bressler & Balshine, 2006; Bressler, Martin & Balshine, 2006; Rowe, 1995). If this is the case, the perception of humor may differ depending on the gender of the person producing it. Furthermore, this could cause differential changes in approach and avoidance depending on the gender of the humor producer. Future research should investigate the relationship between the gender of a humorist and the motivational systems, perhaps even examining if there are differential effects for the gender of the

receiver. In particular, outcomes measures like attractiveness of the humorist could help explain how people perceive male and female humorists differently.

This research is also limited by its use of self-report data. All of the measures included are of a self-report nature. Future research could incorporate physiological and/or behaviorl measures of humor perception (see Szabo, 2003) and approach and avoidance (see Panksepp, 1998). For example, a lexical decision paradigm could be employed. If increasing approach motivation makes us more sensitive to cues of reward and pleasure, then we should recognize them faster than other words. The same would be expected of increasing avoidance, where words associated with pain and punishment may be recognized faster.

The narrow approach to humor was used for several reasons though. Perhaps the most general of these is that humor is not a heavily researched topic. It would be well-argued that only one "Humor" textbook exists on this topic to date, and it was released in 2007 (Martin's *The Psychology of Humor: An Integrative Approach*). This text does include a section on the functions of humor, explaining them in three subsections: cognitive and social functions of the positive emotion of mirth, social communication and influence, and tension relief and coping with adversity. Instead of taking a specific approach, this project focused on stand-up comedy. This is really only intended to be humorous, whether or not it is humorous varies with the tastes from one person to another. This makes it possible that humor of a different function may relate to specific changes in motivation. For example, humor with the function described by Martin's (2007) section "cognitive and social functions of the positive emotion of mirth" may be tailored towards the obtaining of some positive goal and would therefore be expected to be uniquely

linked to an increase in approach motivation. Humor fitting in Martin's (2007) section titled "tension relief and coping with adversity" seems far more related to decreasing avoidance motivation in particular. But, there are not only different functions of humor, research has tried to develop a taxonomy of humor types (Neuendorf & Skalski, 2001; Powers, Neuendorf, & Skalski, 2005). This would be somewhat independent of its function, focusing more on how we classify a humorous stimulus. This research has not conclusively found one taxonomy, and has investigated differences between adult and college-age populations (Neuendorf, Skalski, & Powers, 2004; Neuendorf, Skalski, Jeffres, & Atkin, 2007). This being the case, different populations may display different patterns in what and why something is funny compared to younger people. It is also possible that these different types of humor may differentially affect approach and avoidance motivation. Humor made at someone else's expense typically appears as one type of humor, known as disparaging humor. However, this nature of this humor is to make fun of someone, to incur some social or emotional harm with a humorous statement. This may not necessarily decrease avoidance motivation, because there are likely to be signals of threat coming from the person producing the disparaging comment.

A true control group could also have been used for comparison. People, as social creatures, may obtain some subtle level of pleasure from the positive (or, rather, not negative) interaction with any other person. If this is the case, then the viewing of a video with a person may be a positive experience. If a true control group had been implemented in this study, participants would have simply entered the laboratory area and completed the questionnaire without viewing any video stimuli.

The research reported here also only looked for changes from baseline. At baseline, we shouldn't perceive much of any threat to our safety, thus there is no reason to feel a need to maximize ones safety. If an increase were somehow induced in participants and then differences tested between a humor and neutral or control group, the expected effects may be more apparent or dramatic. This would also suggest that humor is a valuable threat or tension reducing mechanism, of which people may not take advantage.

There could also be an additional level of complexity for participants who expect to find something funny but don't. After giving their consent, Humor participants were informed that they were going to see a video of a stand-up comedian and not all of the participants found him funny or humorous. These participants may have more complicated reactions to the video than those that found him funny. However, analyses compared those participants that found him funny and those that did not. There were no differences between these groups, suggesting that finding the video funny or humorous was not exclusively necessary to cause any changes. Responses to these items even suggest that the humorous video may generalize as being relatively humorous, because nearly two-thirds (64%) of participants agreed that Arj Barker was funny and humorous. Yet, there could still be something more going on with these participants, because their expectations to find the video humorous were violated when they did not find it funny. Conditions could be included where a confederate or the researcher laughs and makes comments about how funny it is, or groans at it and says how funny it is not.

There are two other possibilities for why more effects were not shown. There was nothing present in this study that suggested to participants that they needed to be paying attention to the video. They were not told that they were being tape- or video-recorded,

nor was a recall or recognition task given at the end of the study or in the questionnaire. This suggests that it is possible that participants completely ignored the video that they viewed. Several of the measures used were also intended to be trait-level measures. Differences in these measures may therefore not occur. This makes the results from the behavioral measures and affect measures (e.g., PANAS) more important and perhaps more worthy of emphasis for this study. Items that required the participants to evaluate the person in the video could also have tapped into the outcomes of the effects of the video. Participants could have been asked how attractive or knowledgeable or smart the person in the video was, or how likeable the person is. This could be a particularly interesting analysis if the person in each video was the same.

Most of these limitations offer a direction for future research as well.

4.4 Future research

All of the above limitations include suggestion for further research to replicate and expand upon the effects found and not revealed in this study. This was the first study that investigated relationships between humor and motivation, and much more research is certainly needed to accurately describe this relationship. Distinguishing between the experience of humor, the presence of humor, and the mere presence of humorous intent may help to better illustrate the relationship between humor and motivation. An analysis of the different functions and types of humor could also help us to better understand whether or humor used for different reasons has different influences on motivation or if different types of humor alter approach and avoidance motivation differentially. It is also important to investigate how the experience of humor and the physical expression of laughter relate to motivation. Is laughter a necessary and sufficient condition or changes

in motivation, or must their be a perception of humor (or humorous intent) in the stimulus? Using strictly audio stimuli could assist here. Participants could listen to laugh tracks versus some irritating buzzing noise or no noise and see how those influence approach and avoidance motivation. Analyses of humor produced by languages that participants do not speak could also enhance our knowledge. For example, will people viewing stand-up comedy spoken by a speaker not using their native language still experience changes in motivation (i.e., because the intent might still be detectable in nonverbal and acoustic information)? Research should also specifically investigate how humor may influence motivation when not from a baseline. Situations characteristically high in avoidance or low in approach could be analyzed as well.

The use of more online or neurological measures may also help illustrate this relationship. If brain areas associated with approach and avoidance motivation can be shown to be differentially activated when exposed to humor, this would indicate a much stronger relationship between humor and motivation that is painted here. For example, functional magnetic resonance imaging (fMRI) has a very online nature to its measurement. In addition to good spatial accuracy, fMRI could show us whether or not there is activation in brain areas that are associated with approach and avoidance motivation (e.g., Hewig, Hagemann, Seifert, Naumann, Bartussek, 2006; Panksepp, 1998). If the changes only last for a short duration, then only measures administered immediately after exposure to humor may display the expected effects as well.

Research on groups also suggests that there could be differences in approach and avoidance motivations in group situations (Park & Hinsz, 2006). Here, it is theorized that groups offer a sense of 'safety in numbers' where there may be increased feelings of

safety and security when people are in groups. A replication of this research could add group conditions to examine for differential effects between groups and individuals. Future research could, for example, could require participants to watch the video clips individually *or* in groups before completing the questionnaire.

Humor as a psychological research area is still extremely reliant upon other research areas, thus not being very well understood itself. This being the case, much more research is needed to explain how, when, and why humor relates to changes in approach and avoidance motivation.

CHAPTER V

CONCLUDING REMARKS

The present research offers some insight into the influence of humor on approach and avoidance motivation. The mixed results suggest that further research needs to be conducted in order to better understand the specific relationship between perceiving or the presence of humor and approach and avoidance motivation. Additionally, it adds to the relatively small amount of research on humor. This study may have implications for various other research areas, including interpersonal attraction, power situations, and test taking. Research bridging the gap between a large research field like motivation and relatively small one like humor may help to bring it out of obscurity and into the mainstream. After all, humor is a central phenomenon to human existence (Lefcourt, 2001b).

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APPENDIX

APPENDIX A

Video Transcriptions.

Comedy Central Presents: Arg Barker

"And it's so nice, I'd just like to feel the energy of all these people, we're here tonight for a cause, ten percent of my proceeds will go to help this kitten, which is, uh, stricken with a horrible thyroid problem. And this Poopy, and Poopy is only six weeks old, but he's over two thousand times what a normal kitten's size should be."

"I'm very excited, I had to come all the way up from Australia, which is a very long flight, and I don't like long flights, but this flight was like the best flight I've ever been on and I'm not bragging, but you're looking at a new member of the mile high club, thank you! ... Solo aviator division."

"It's a great country, the one thing I found a little concerning—no Burger Kings—that just seems unnatural. But if you mention that to an Australian, they go, "No mate, Hungry Jacks." Has anyone seen that, they got a restaurant called Hungry Jacks, but I didn't feel comfortable eating there. I don't think it'd be very good. Hungry Jack's—how good could it be—the guy who owns the restaurant is hungry. Know what I mean, if it was called Fat Happy *bleep* Well Contented Jacks, I'd eat there, but I wouldn't bring a kid, 'cause it has a swear word in the title ... and that's inappropriate."

"Email is so cool, I say, if you're single, if you're in the bar, don't get the phone number, get the email address. There's no way to screw it up. 'Cause you know how hard it is to call somebody after you just met 'em like the other night: 'Hey, how's it goin', uh, it's me, uh, yeah I met you, just sayin' hi, OK bye. Hey, it's me again, I forgot to...' And you can't screw it up with email, you can't do that with email unless you're, like, the most impulsive typist ever, you know. 'Hey, uh, what's goin' on, uh, hey I met you the other night, uh, um, what's goin *click* send, *bleep*! Hey, it's me again." No no, you take your time, you compose offline."

"I just got on the line, it's not easy to get on the line. I thought, everyone said, 'Arg you better get on the line. But, I thought, OK, I got a computer, but you don't just get a computer, to get online, you gotta get other stuff. You better get a modem, or you're not getting on anything, you gotta get a monitor, that's what I found out. You gotta get a mouse, you gotta get a mousepad, you gotta get a sperm guard for your keyboard. So wait...What?! Well..."

"I actually got a website, my friend said, 'Arg, you better get a website.' So I went to this company, zoltron.com, had them build me a website, and they made it really nice. And, uh, but, then uh, I didn't even know how to use it, 'cause I don't know much about computers. So I called up my friend, who told me to get one, I said, 'Rube, I can't get www.arjbarker.com, I can't get the videos to download on www.arjbarker.com.' And he said, 'Arj, if you're having trouble with www.arjbarker.com, don't call me ... you consult the web-*master*.' So I was like—fine. So I called Spiderman, 'You know, Spidey, I hate to bother you, I know you're very busy down at the paper, but uh, I can't get the videos to download on my website.' And Spiderman was like, '(muffled speech)'. 'Cause he's an idiot, he never cut a mouthhole!"

"But I mean, I used to smoke, and I liked it, but I couldn't enjoy a whole cigarette just 'cause I got like two puffs into it and then I thought ... It all came back to me, all the years of hearing how bad it is, from parents, teachers, brochures, TV, animals, uh. It all came back, and it just, I've heard for too many years how its harmful and I can't enjoy it. You know, I could have enjoyed a cigarette if I smoked back like before everyone knew it was bad, like, say like 1923. Yeah, everybody smoked back then. They all smoked. Because, there was no medical information against it. They had no idea it was bad for you, so it was a smokers paradise:

"Oh, this is great...I love smokin', too good to be true. Hey Phil, how ya doin', buddy? Not too good, they're takin' my lung out next week...I don't know why. Doctor thinks maybe I'm brushin' my teeth too often. But I can't help it, 'cause for some reason my breath smells like I licked a monkey's ass!"

[5:08]

Cleveland State University's School of Communication Present Steve Alic

"As the NFL's AFC information manager, I work on day-to-day, with media, who cover the NFL and NFL clubs, in the 16 AFC markets. AFC meaning the American Football Conference, we have the AFC and the NFC, the National Football Conference. I will service those media, publicize, pitch stories to those writers, and also work with those teams' PR departments on a day-to-day basis."

"Arie Fleischer, President Bush's former press secretary, has five principles on communication, they're more slanted towards PR, more toward what I do. First, he says, always let the truth be your guide. Lies can come back to haunt you. I hope never to test that principle. Be truthful, because if you lose your credibility, it really takes away a lot of tools, your effectiveness as a communicator. That's all I have, if, uh, I, you need your credibility as a PR or as an information person for the press."

"Secondly, do your homework, know the facts. Take the time to dig and to learn. I take this to heart myself, if I get a question about—'What are free agency rules for, for uh, someone who wasn't drafted'—Or maybe I'll be asked something about the salary cap. If I don't know, and you're not going to know everything, but the key thing in my job is to know where you can find answers. Go through the books, do the research, and then I'll call the experts. I call people in our player personnel departments who work with the teams all the time on player contracts and say, 'Hey, just so I have this right, I looked this up in the handbook, it says this, I believe that to mean such and such, is that true?' Rather than calling them and saying, 'What's the answer.' Someone might say, "Steve, when did Jeff Garcia enter the league?" Well, you know, you probably have a set of team media guides on your desk, you probably could have figured that out. It's just the small things that, uh, that help you along. Do your homework."

"Third, think like a reporter. Know what questions are going to be asked. The first thing I do every morning, I come in at about a quarter to 8:00, and, by 9:30, I had better gone through about 35 AFC market newspapers, take the key stories, share them with my bosses and senior managementl; to let them know what's happening in the AFC today, what are the big stories in the NFL. So, uh, know what's going on."

"Fourth, and this is more when you're pitching a piece, or pitching a story angle: find your message. And, what I think of is, let's say, uh, something we're starting to do now, we have, during the summer, we have 'officiating grassroots clinics', where members of our officient department will go around the country and work with high school and college officials, to give them some pointers, to develop them, and also, perhaps, recruit some officiating talent for NFL Europe, and eventually, NFL games. Um, if I'm giving that piece to publicize. Okay, we're going to Kansas city, I'm gonna call the *KC Star*, and, uh, we wanna get this message out there. If you could write the headline, what would it be? Frame your story around your simple, basic message. And then that leaves you to your fifth and final point: be disciplined. Stay on your message, don't stray from it. It's easier said than done, but keep hammering that single message home to get what you want to get across."

"I'm going to discuss some key components in public relations. Specifically, businesses need lawyers in order to succeed in the court of law. You also need public relations specialists to help you win in the court of public opinion. And the news media makes a major impact in business. The NFL and its teams were built with virtually no advertising; you didn't have advertising budgets in the 1920s or marketing departments in the 1930s. The league and most sports entities have uh, have been built, those brands have been built by massive amounts of publicity, a great game, and good publicity."

[4:51]

APPENDIX B

Questionnaire and questionnaire items completed by participants. Sources are included in questionnaire headers and are listed in the order in which participants completed them.

The Positive and Negative Affect Schedule [PANAS] (Watson, Clark, & Tellegen, 1988)

The item "hostile" was replaced with "threatened" and several other items were added that were more specifically approach and avoidance motivation oriented, all *added* items are denoted with an "*" after the item. Items followed by a "(+)" in the first block were used to calculate total PA scores, the others in the first block were used to calculate NA scores.

Instructions: This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you this way right now, that is, at the present moment. Participants used the following scale to record your answers:

l very slightly or not at all	2 a little	3 moderately	4 quite a bit	5 extremely
	interested (+) distressed excited (+) upset strong (+) guilty scared threatened* enthusiastic (+) proud (+) cautious* prudent* bold* energized* eager* care-free* goal-oriented* tense*		irritable alert (+) ashamed inspired (+) nervous determined (+) attentive (+) jittery active (+) afraid safe* productive* anxious* powerful* depressed* elated* delighted* relaxed*	

A New Scale of Self-Regulatory Focus: the Regulatory Focus Scale (RFS) (Fellner, Holler, Kirchler, & Schabmann, 2007)

Item on this scale were developed to measure constructs theorized to be highly related to promotion and prevention. Autonomy and Openness to New Things are related to promotion, whereas Sense of Obligation and Orientation to the Expectations of Others are related to prevention.

Instructions: For these items, please press the key that corresponds to the answer most appropriate for you. Participants used the following scale to report their answers:

1 2 3 4 5 6 7
Definitely Not true Probably Neither true Probably True Definitely untrue nor untrue true true true

I prefer to work without instruction from others. (Autonomy)

Rules and regulations are helpful and necessary for me. (Autonomy)

For me, it is very important to carry out the obligations placed on me. (Sense of Obligation)

I generally solve problems creatively. (Openness to New Things)

I'm not bothered about reviewing or checking things really closely. (Sense of Obligation)

I like to do things in a new way. (Openness to New Things)

I always try to make my work as accurate and error-free as possible. (Sense of Obligation)

I like trying out lots of different things, and am often successful in doing so. (Openness to New Things)

It is important to me that my achievements are recognized and valued by other people. (Orientation to the Expectations of Others)

I often think about what other people expect of me. (Orientation to the Expectations of Others)

Items taken from the International Personality Item Pool (Goldberg, Johnson, Eber, Hogan, Ashton, Cloninger, & Gough, 2006)

I added two items, which are followed by "*".

Instructions: On the following pages, there are phrases describing people's behaviors. Please use the rating scale below to describe how much you agree with the statements. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Describe yourself as you feel right now, that is, at the present moment. Please read each statement carefully, and then circle the number that corresponds to the word on the scale. Participants used the following scale to record your answers:

1	2	3	4	5	6	7
Strongly disagree	Disagree	Disagree somewhat	Undecided	Agree somewhat	Agree	Strongly agree

- 1. I feel playful right now.
- 2. I am having fun.
- 3. I am ready for change.
- 4. I'd like to try new things.
- 5. I want things to stay the way they are right now.
- 6. I hate surprises.
- 7. I am the last to laugh at a joke.
- 8. I am seeking an adventure.
- 9. I am attached to conventional ways.
- 10. I dislike the unknown.
- 11. I don't want to travel across the country or to a different continent.
- 12. I am a creature of habit.
- 13. I avoid dealing with uncomfortable emotions.
- 14. I avoid dealing with awkward situations.
- 15. I do not stand up for my beliefs.
- 16. I don't speak my mind freely when there may be negative results.
- 17. I find the world a very interesting place.
- 18. Many different activities excite me.
- 19. I'd like to hear about other countries and cultures.
- 20. I can't wait to get started on a new project.
- 21. I dread getting up in the morning.
- 22. I purchase only practical things.
- 23. I wouldn't spend more than I can afford.
- 24. I often make last-minute plans.
- 25. I am avoiding mistakes.
- 26. I am making rash decisions.
- 27. I act without thinking.
- 28. I follow directions.
- 29. I keep my promises.
- 30. I tell the truth.
- 31. I respect authority.
- 32. I prefer to stand during the national anthem.
- 33. I fear walking in a high-crime part of a city.
- 34. I would never go riding down a stretch of rapids in a canoe.
- 35. I am willing to take risks.
- 36. I avoid dangerous situations.
- 37. I would not make a high risk investment.
- 38. I stick to the rules.
- 391. I am comfortable with myself.
- 40. I feel that my life lacks direction.

- 41. I am filled with doubts about things.
- 42. I retreat from others.
- 43. I tend to be cautious rather than risky when I make decisions.*
- 44. I always read all of the directions.*

Scenarios:

Gambling scenario:

Imagine that you are given the opportunity to participate in a raffle. One hundred tickets will be sold, and one winner will be drawn to win \$100. So, every ticket has a 1 in 100 chance of winning. Each ticket costs \$2. You only have \$20, and your rent it due next week. How many tickets would you purchase right now?____

Deal or No Deal scenario:

Imagine that you that there is a table in front of you with three briefcases on it, numbered 1, 2, and 3. You are told that one case is empty, one case has \$5 in it, and the third has 10\$ in it. You select a case, any case. You open your case and see that it has \$5 in it. You are then told that you can trade your case for either one of the remaining two cases, or you can keep the case you have already chosen and leave with \$5. What would you do?

- I would keep my case and leave with \$5.
- I would trade my case for one of the others.

How satisfied are you in your decision?

1	2	3	4	5	6	7
Not at all	Just a little	Somewhat	Moderately	Quite	Very	Extremely
satisfied	satisfied	satisfied	satisfied	satisfied	satisfied	satisfied

General Regualtory Focus Measure (Lockwood, Jordan & Kunda, 2002)

Promotion items are followed by an "*".

Instructions: Using the scale below, please write the number in the blank that corresponds to how you feel right now. Participants used the following scale to record your answers:

1	2	3	4	5	6	7	8	9
Not at								Very
all true								true of
of me								me

- 1. In general, I am focused on preventing negative events in my life.*
- 2. I am anxious that I will fall short of my responsibilities and obligations.
- 3. I frequently imagine how I will achieve my hopes and aspirations.*
- 4. I often think about the person I am afraid I might become in the future.*
- 5. I often think about the person I would ideally like to be in the future.*
- 6. I typically focus on the success I hope to achieve in the future.
- 7. I often worry that I will fail to accomplish my academic goals.
- 8. I often think about how I will achieve academic success.*
- 9. I often imagine myself experiencing bad things that I fear might happen to me.*
- 10. I frequently think about how I can prevent failures in my life.
- 11. I am more oriented toward preventing losses than I am toward achieving gains.
- 12. My major goal in school right now is to achieve my academic ambitions.
- 13. My major goal in school right now is to avoid becoming an academic failure.
- 14. I see myself as someone who is primarily striving to reach my "ideal self" —to fulfill my hopes, wishes, and aspirations.
- 15. I see myself as someone who is primarily striving to become the self I "ought" to be to fulfill my duties, responsibilities, and obligations.
- 16. In general, I am focused on achieving positive outcomes in my life.*
- 17. I often imagine myself experiencing good things that I hope will happen to me.*
- 18. Overall, I am more oriented toward achieving success than preventing failure.*

BIS-BAS Scale (Carver & White, 1994)

Behavioral Inhibition System (BIS) items are followed by an "*". The three Behavioral Activation System (BAS) subscales have initials following their respective items: Fun Seeking (fs), Drive (d), and Reward Responsiveness (rr)

Instructions: For each of the following statements, please indicate how much you agree with the statement, considering how feel right now. Please provide a rating from 1 to 4, using the following scale:

1 2 3 4 Strongly disagree Strongly agree

- 1. When I'm doing well at something, I love to keep at it. (rr)
- 2. If I think something unpleasant is going to happen I usually get pretty "worked up".*
- 3. I crave excitement and new sensations. (fs)
- 4. I worry about making mistakes.*
- 5. It would excite me to win a contest. (rr)
- 6. If I see a chance to get something I want, I move on it right away. (d)
- 7. I have very few fears compared to my friends. * (reverse-coded)
- 8. When I get something I want, I feel excited and energized. (rr)
- 9. When I go after something I use a "no holds barred" approach. (d)
- 10. When good things happen to me, it affects me strongly. (rr)
- 11. I feel worried when I think I have done poorly at something.*
- 12. When I see an opportunity for something I like, I get excited right away. (rr)
- 13. I feel pretty worried or upset when I think or know somebody is angry at me.*
- 14. When I want something, I usually go all-out to get it. (d)
- 15. I go out of my way to get things I want. (d)
- 16. Even if something bad is about to happen to me, I rarely experience fear or nervousness.* (*reverse-coded*)
- 17. I will often do things for no other reason than that they might be fun. (fs)
- 18. Criticism or scolding hurts me quite a bit.*
- 19. I'm always willing to try something new if I think it will be fun. (fs)
- 20. I often act on the spur of the moment. (fs)

Manipulation Checks

Instructions: Please incidate how much you agree with the following statements:

1	2	3	4	5	6	7
Strongly	Disagree	Disagree	Undecided	Agree	Agree	Strongly
disagree		somewhat		somewhat		agree

- I found the video clip funny.
 I found the video clip humorous.
 I found the video clip interesting.
 I found the video clip informative.
 I found the video clip intimidating.
 I laughed during the video clip.
 I chuckled during the video clip.

Quote Checks

Instructions: Before completing the next questionnaire, we want you to think about and try to remember the video clip you saw. The following statements are from that videoclip. Please do your best to rate how [funny/intimidating] you found the following statements when they were spoken during the video clip.

Humor Condition:

The following statements are from the video clip you saw. Please rate the funniness of these statements.

1	2	3	4	5	6	7
Not at all	Just a little	Somewhat	Moderately	Quite	Very	Extremely
funny	funny	funny	funny	funny	funny	funny

1a. "I love to feel the energy of all these people, we are here tonight for a cause: 10% of my proceeds will go to help this kitten, which is stricken with a horrible thyroid problem. And this is Pooby, and Pooby is only six weeks old, but he's over 2000 times what a normal kittens size should be."

2a. "I just got on the line, it's not easy to get on the line. I thought, everyone said, 'Arg you better get on the line. But, I thought, OK, I got a computer, but you don't just get a computer, to get online, you gotta get other stuff. You better get a modem, or you're not getting on anything, you gotta get a monitor, that's what I found out. You gotta get a mouse, mousepad, you gotta get a sperm guard for your keyboard. So wait...What?! Well..."

3a. "It's a great country; the one thing I found a little concerning—no Burger King's—that just seems unnatural. But if you mention that to an Australian, 'No, mate, Hungry Jack's.' Has anyone seen that? They got a restaurant called Hungry Jack's—but I didn't feel comfortable eating there. I don't think it would be very good; Hungry Jack's, how good could it be—the guy who owns the restaurant is hungry. Know what I mean, if it was called Fat, Happy, *bleep* Well Contented Jack's, I'd eat there, but I wouldn't bring a kid, because it has a swear word in the title ... and that's inappropriate."

4a. "I actually got a website, my friends said, 'Arg, you gotta get a website.' So I went to this company, Zoltron.com, had them build me a website, and they made it really nice, and uh...uh I didn't even know how to use it, because I don't know very much about computers. So I called up my friend, who told me to get one, I said 'Rube, I can't get www.argbarker.com, I can't get the videos to download on www.argbarker.com.' And he said, 'Arg, if you're having trouble with www.argbarker.com, don't call me, you consult the web*master*.' So, I was like—fine. So I called Spiderman, 'You know, Spidey, I hate to bother you, I know you're very busy down at the paper, but uh, I can't get the videos to download on my website.' And Spiderman was like, '(muffled speech)'. 'Cause he's an idiot, he never cut a mouthhole!"

5a. "Oh, this is great...I love smokin', too good to be true. Hey Phil, how ya doin', buddy? Not too good, they're takin' my lung out next week...I don't know why. Doctor thinks, maybe I'm brushin' my teeth too often. But I can't help it, 'cause for some reason my breath smells like I licked a monkey's ass!"

No Humor Condition:

The following statements are from the video clip you saw. Please rate how intimidating these statements are.

1	2	3	4	5	6	7
Not at all	Just a little	Somewhat	Moderately	Quite	Very	Extremely
intimidating	intimidating	intimidating	intimidating	intimidating	intimidating	intimidating

1b. "As the NFL's AFC information manager, I work on day-to-day, with media, who cover the NFL and NFL clubs, in the 16 AFC markets. AFC meaning the American Football Conference, we have the AFC and the NFC, the National Football Conference. I will service those media, publicize, pitch stories to those writers, and also work with those teams' PR departments on a day-to-day basis."

2b. "Arie Fleischer, President Bush's former press secretary, has five principles on communication, they're more slanted towards PR, more toward what I do. First, he says, always let the truth be your guide. Lies can come back to haunt you. I hope never to test that principle. Be truthful, because if you lose your credibility, it really takes away a lot of tools, your effectiveness as a communicator."

3b. "Secondly, do your homework, know the facts. Take the time to dig and to learn. I take this to heart myself, if I get a question about—'What are free agency rules for someone who wasn't drafted'—Or maybe I'll be asked something, 'what's the salary cap?' If I don't know, and you're not going to know everything, but the key thing in my job is to know where you can find answers. Go through the books, do the research, and then I'll call the experts. I call people in our player personnel departments who work with the teams all the time on player contracts and say, 'Hey, just so I have this right, I looked this up in the handbook, it says this, I believe that to mean such and such, is that true?' Rather than calling them and saying, 'What's the answer."

4b. "Third, think like a reporter. Know what questions are going to be asked. The first thing I do every morning, I come in at about a quarter to 8:00, and, by 9:30, I had better gone through about 35 AFC market newspapers, take the key stories, share them with my bosses and senior managementl; to let them know what's happening in the AFC today, what are the big stories in the NFL."

5b. "Fourth, and this is more when you're pitching a piece, or pitching a story angle, find your message. And, what I think of is, let's say, uh, something we're starting to do now, we have, during the summer, we have officiating grassroots clinics, where members of our officient department will go around the country and work with high school and college officials, to give them some pointers, to develop them, and also, perhaps, recruit some officiating talent for NFL Europe, and eventually, NFL games."

Instructions: This questionnaire is simply to gather some basic information about you, please answer as truthfully and accurately as possible.

1	2	3	4		5	6	7
Strongly	Disagree	Disagree	Undecid	ed A	gree	Agree	Strongly
disagree	_	somewhat		som	newhat	_	agree
_							_
How much de	o you agree with the	following state	ement: "I enjo	y stand-up o	comedy."		
How much de	o you agree with the	following state	ement: "I am	familiar with	n the person	I saw in th	ne video
clip."							
How often do	you smoke cigarette	es or use other	nicotine prod	ucts?			
When you th	ink about your smok	ing behavior (p	ast or presen	t), how conc	erned do yo	ou feel abo	ut your
health?							
How much de	o you agree with the	following state	ement: "I enjo	y watching	professional	l sports, su	ch as the
NFL."							
What is your	age in years?						
What is your		□ Male	□ Fema	le			
What is your	primary language?	□ English	□ Spani	sh □	Other		
What is your	racial category?	□ Hispanic	□ Non-	Hispanic			
What is your	ethnic background?						
□ A :	rab						
$\Box A$	sian/Pacific Islander						
□ A :	frican American/Blac	ck					
	aucasian/White						
□ N:	ative American						
□ M	ultiracial						
	atino						
□ I <i>v</i>	would rather not say						
□ O:							
	annual household in	come (approxi	mately)?	□ \$0 - \$24,	,999	□ \$25	,000 -
\$49,999							
□ \$5	50,000 - \$74,999	□ \$75,000 -	\$99,999	□ \$100,000) +		