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REGULATORY FIT AND CONSUMER BRAND PREFERENCES

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Bachelor of Arts in Psychology

Cleveland State University

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submitted in partial fulfillment of requirements for the degree

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JOHNNY A. SAMS

ABSTRACT

Research has demonstrated that consumer perceptions of products are affected by the “fit” between their regulatory focus or goal orientation and their conception of what products can offer in terms of satisfying the goals activated by that orientation. This research has focused on product features and the way product messages are framed for consumers. However, research has not focused on fit in terms of brand names and the types of regulatory orientations (promotion vs. prevention) that can be associated with them. This issue has potential implications for consumers and how products can be more effectively marketed to them. Given that research has demonstrated the consumers make product choices based on fit, the following was hypothesized in this study: H1: The more promotion-focused one is, the more positive product ratings will be if the brand name is associated with promotion concerns and strategies; and H2: The more prevention-focused one is, the more positive product ratings will be if the brand name is associated with prevention concerns and strategies. While not the primary foci of this paper, effects based on the following two hypotheses were also examined: H3: As independent self-construal scores increase, the more likely it is that product ratings will be higher for brand names associated with promotion concerns and strategies; and H4: As interdependent self-construal scores increase, the more likely it is that product ratings will be higher for brand names associated with prevention concerns and strategies. To test the hypotheses, participants were given individual difference measures, then asked to rate cars and sports teams with brand names created for the study. Sports teams were included given the

expectation that consumer identify strongly with them (in addition to car brands). Brand names appeared in two types: promotion and prevention. After the ratings, participants were given a recall task for cars they had rated earlier in the study. Then, demographics were collected and participants were debriefed. While the results were not consistent across the ratings, each of the four hypotheses demonstrated some instances of support.

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CHAPTER I

INTRODUCTION AND LITERATURE REVIEW

1.1 Introduction

This paper will begin with a literature review that will cover several topics related to the psychology of consumer behavior. These topics will build upon one another and lead to a set of proposed hypotheses to be examined in this research. First, a self-regulation framework will be presented to describe how people pursue goals and respond to their situation during goal pursuit. The paper will move on to a discussion of self-guides, which describes the process of psychological identity formation and maintenance. Then, the concept of self-discrepancy will be discussed, after which personality in terms of regulatory focus will be covered in detail. The discussion of regulatory focus will include the two types of regulatory focus to be examined (promotion and prevention), cultural considerations, and early environmental influences that shape the development and activation of these regulatory foci. Then, discussion will center on ways regulatory foci relate to attitudes and persuasion. This discussion will then lead to an explanation of regulatory fit, a concept that is key to the hypotheses explored in this research. Ultimately, novel applications of regulatory fit principles will be introduced and tested, and the potential benefits of this approach will be considered.

1.2 Self-Regulation

Self-regulation has been defined as the process in which individuals attempt to bring their behaviors and self-conceptions into alignment with relevant goals or standards (Brockner & Higgins, 2001; Brockner, Paruchuri, Idson, and Higgins, 2002), and it occurs when reaching an activated goal requires conscious effort. In goal pursuit, there must be a defined standard or goal that is to be met, and if unmet, people engage in self-regulation to reduce discrepancies between their current state and these desired outcomes (target goals or standards). One model that can be used to illustrate the process of self-regulation goes by the acronym, TOTE (Carver & Scheier, 1992).

TOTE outlines the process by which feedback systems such as self-regulation work. In TOTE, there are four basic steps: Test, Operate, Test, and Exit. In the first test phase (Test), the operator of a system monitors itself to determine whether its current state matches its desired end state (goal). If this first test does not yield a match (the goal is not met), then the operator engages in behaviors that move one closer to his/her identified goal (Operate). Next, the operator again examines his/her situation and assesses the degree to which progress has been made to determine whether the defined goal has been reached (Test). If there is a match between the operator's current state and desired end state, meaning the goal has been met, self-regulation is no longer required and the operator exits the process (Exit). If a discrepancy between the current state and desired end state still exists, then a loop in the TOTE process occurs. In this case, the operate phase is again instigated to facilitate movement towards the goal, and this continues until the Exit phase is reached.

The process of self-regulation can be likened to the workings of a temperature control system. In this system, a thermostat would function as the operator. When the

thermostat is set (goal/standard is activated), its goal is to regulate the temperature of a room so the difference between the temperature and its setting is zero. In order for this regulation to be successful, there are several steps that must occur. First, the thermostat must test. In this test, the thermostat compares the room temperature to its setting. If there is a difference between the room temperature and the thermostat's setting, then the thermostat initiates operation. In the operation phase, the thermostat instructs the furnace to run and the furnace begins running so the temperature of the room more closely matches the desired thermostat setting. Next, the thermostat runs its test again and compares the room temperature to its setting to see if the desired outcome (goal) has been met. If the difference between the room temperature and the thermostat's setting is zero, then the system discovers the desired outcome has been achieved and the thermostat initiates the exit phase. In the exit phase of the process, the thermostat instructs the furnace to discontinue running because at this point, the temperature goal has been met. There is a match between the room temperature and the thermostat's setting, so it is no longer necessary for the furnace to operate.

1.3 Self-Guides

While a thermostat has a *temperature* goal, humans have *self-relevant* goals. These goals are called *self-guides*. Self-guides are integral to self-regulation because they often set and define the standards to be met. Self-guides are representations of what one desires to be like, and they contain characteristics that one is motivated to possess. Self-guides or standards can be defined by societal norms or personal norms, and are likely to be influenced by people who are important to the individual. While the content of self-guides will be idiosyncratic for every individual, theorists suggest there are two broad

types of self-guides that people hold in common: *ideal* self-guides and *ought* self-guides (Higgins, 1987; Higgins, Shah, & Friedman, 1997).

An *ideal* self-guide is a standard defined by how or what one *would like* to be. As the label suggests, this is a representation of the idealized self, consisting of the characteristics and properties one hopes, aspires, and wishes to possess (Higgins, 1987). For example, an individual may have an image of the self as carefree, spontaneous, daring, and heroic, much like an explorer, trailblazer, or pioneer. This representation would be an ideal self-guide, a standard that the individual aspires to reach when the goal is activated. Conversely, an *ought* self-guide is a standard defined by how or what one *should* be. As implied, this representation of the ought self consists of the characteristics and properties one feels obligated to possess. This self is an image of who one ought to be, or should be, and is defined by standards that focus on upholding one's morals, values, duties, and responsibilities. For instance, a person's ought self-guide might be a standard where the individual is represented as being civic-minded, righteous, honorable, and acting with integrity and morality. When people think of the ought selves they strive to actualize, they might be imagining themselves as the type of person who stands up for others, and who defend the weak, helpless, and needy.

Implicit in the prior examples is the assumption that peoples' cognitions of how or what they *hope* to be, or *should* be, are not necessarily how they actually *are* in the present. While it would be great if in reality people were identical to their self-standards of who they want to be and should be, obviously this is not the case. Instead, there can be a difference between an individual's self-guides, whether their target is an *ideal* self (how one hopes to be) or *ought* self (how one thinks one should be), and a person's *actual* self

(one's conception of how one actually is). When someone tries to be the person he/she wants to be or should be, but has not reached that goal yet, a self-discrepancy exists.

1.4 Self-Discrepancy

A self-discrepancy is the perceived difference between one's current state and a given end-state (Higgins, 1987; Higgins, Shah, & Friedman, 1997; Strauman & Higgins, 1987). In self-discrepancy theory, an individual's current state is that person's *actual* self, whereas an individual's cognition of a given end-state is either one's *ideal* or *ought* self (Higgins, 1987). These self-guides, or standards, are contrasted to one's actual self in a manner consistent with the TOTE model. Since the self-guides serve as the standard to be met, the individual monitors for self-discrepancies, which would indicate improvements or progress needs to be made.

When such self-discrepancies occur, the individual experiences negative emotions (Higgins, 1987; Higgins, Shah, & Friedman, 1997; Strauman & Higgins, 1987), which presumably act as an alarm to inform the individual that the goal has not yet been met, and to further motivate the individual to continue his/her goal pursuit (Strauman & Higgins, 1987). The specific nature of these negative feelings depends on the type of self-discrepancy being experienced. If a discrepancy exists between an actual self-representation and an ideal self-representation, one is likely to feel dejection-related affect.

As an illustration, if a salesman has an ideal self-representation of being an adventurous risk-taker, but happens to find himself unwilling to take a gamble when faced with a potentially lucrative but risky opportunity, he will feel disappointment and dejection. Alternatively, if a discrepancy between the actual self-representation and an

ought self-representation exists, one is likely to feel agitation-related affect (Higgins, 1987; Higgins, Bond, Klein, & Strauman, 1986; Strauman, 1989; Strauman & Higgins, 1987). For instance, if a successful lawyer has an ought self-representation of being consistently available to fulfill her duties as a parent, but in actuality finds herself spending long hours at work and neglecting her parental responsibilities, she will feel agitation and anxiety.

The presence of either type of negative affect helps one recognize self-discrepancies, and makes it salient to the individual that standards have not been reached. Subsequently, the motivation to engage in self-regulation becomes activated because engaging in self-regulation (operation phase of TOTE) is needed to meet one's goals, and thus needed to escape aversive feelings of negativity (Crowe & Higgins, 1997). Importantly, the reduction of self-discrepancies can be executed through various regulatory strategies. The regulatory strategy that is used depends on an individual's regulatory focus (Higgins, 1997).

1.5 Regulatory Focus

Regulatory focus refers to the way goals are cognitively framed and the process by which they are selected and pursued by an individual (Brendl & Higgins, as cited by Fellner, Holler, Kirchler, & Schabmann, 2007; Crowe & Higgins, 1997; Forster, Higgins, & Bianco, 2003; Liberman, Molden, Idson, & Higgins, 2001). There are two types of regulatory foci, called promotion and prevention focus (Higgins, 1997), and which orientation is activated at any given time may depend on one's disposition or the situation (Idson, Liberman, & Higgins, 2000). Specifically, the more a person has ideal self-guides activated, the more promotion-focused he/she is. Alternatively, the more a person has

ought self-guides activated, the more prevention-focused he/she is. People differ in terms of which type of self-guides they more chronically act on, thus, individual differences exist with regard to what one's default regulatory focus is.

While there are two types of regulatory foci (promotion and prevention), Higgins (1997) proposed that each type is central to its own unique input-output system. That is, each type of regulatory focus is central to a system that can predict goal-pursuit behaviors. Each regulatory system contains three input variables and four output variables. Specifically, three variables in a given system activate a particular type of regulatory focus (promotion or prevention) which, in turn, yields certain behavioral tendencies as described by four output variables.

1.5.1 Promotion

According to Higgins (1997), a *promotion* focus is activated by the following three (input) variables: ideals, nurturance needs, and gain/non-gain situations. Ideals, as mentioned previously, are an individual's wishes, hopes, and aspirations, goals for how one would like to be. For instance, a retiring professional with a promotion focus may often activate an ideal self-guide that characterizes himself as being carefree, prompting the desire to purchase beachfront property and to leisurely travel the country. This same promotion individual might also frequently be motivated by nurturance needs such as growth and development. For example, during his professional career, this individual may have been an ambitious entrepreneur who worked to build a chain of luxury hotels, largely driven by the desire to attain recognition, social status, and positive regard from others.

While concepts such as ideals and nurturance needs may be relatively

straightforward concepts, gain/non-gain situations bear more explanation. For illustration, assume that the retiree referenced above is a contestant on a game show. On the show, contestants compete for money through a series of anagram-solving tasks. That is, contestants must unscramble series of letters to form words. In this scenario, each contestant starts with no money. For each anagram that a contestant solves, he is eligible to win \$500 (gain). For each one that he does not solve, the amount he is eligible to win does not increase (non-gain). This is a gain/non-gain situation because for those involved, there is nothing to lose and there are only positive outcomes to be gained. According to Higgins (1997), such a situation would likely activate a promotion focus, and would be independent of prevention-focus concerns (which deal with avoiding losses).

While it has been explained that ideals, nurturance, and gain/non-gain activate a promotion focus, it is still necessary to explain what tendencies (output) a promotion focus will likely yield once activated. One such tendency is a sensitivity to information that informs one about the probability of positive outcomes. That is, persons with a promotion focus cognitively frame situations such that they are attuned to monitor for the presence or absence of positive information or outcomes. For example, suppose that before the retiree began his former career in the luxury hotel business, he had a stint as a law student attempting to pass his bar exam. Assuming he was promotion-focused, this student may have attempted to monitor his performance by asking himself: “How many answers did I get right so far?”

If he believed that his number of correct responses was sufficient to pass the exam, then he would have anticipated the presence of a positive outcome. If he believed that his number of correct responses was insufficient to pass the exam, then he would

have anticipated the absence of a positive outcome. Given that this promotion-focused individual would have had a hedonic preference for positive outcomes, it is likely that he would have responded to information or outcomes in a manner consistent with the TOTE model described earlier. In such a case, the goal would be to perform at a level of effort believed optimal for passing the exam. That is, if, after asking himself how many answers did he think he had right at any given time (Test), the student believed that his number of correct responses was insufficient to pass the exam, it is probable that he would have: increased his amount of effort (Operate), asked himself again if his number of correct responses was sufficient to pass the exam (Test), and maintained effort at a level he believed was optimal to pass the exam until it was completed (Exit).

While promotion-focused persons exhibit a sensitivity to positive information or outcomes, this type of sensitivity is complimented by their tendency to pursue goals with a state of eagerness and to focus on productivity. This state of eagerness entails a related tendency for promotion-focused individuals to engage in goal-pursuit using eagerness means. Specifically, persons with a promotion focus are likely to frame goal-pursuit in terms of ensuring hits (presence of positive outcomes, or gains) and ensuring against misses (absence of positive outcomes, or non-gains).

So, in the case of the former promotion-focused law student, it is likely that he would concentrate on getting as many correct answers (hits) as possible, which would result in a willingness to guess on questions where he was unsure of the correct response. Since a promotion focus will lead one to pursue the goal of successful performance with the mindset of “answer correctly” rather than “don’t answer incorrectly”, this type of

person will find it more strategic to guess on a question rather than pass up an opportunity to get a question right.

While promotion-focused individuals are likely to use eagerness means in goal-pursuit, they are also likely to experience certain emotions in the face of hits (successes) and misses (failures). Specifically, in the event of successfully meeting a goal (gain, hit, presence of positive outcome), promotion-oriented individuals are likely to feel cheerfulness-related emotions (e.g., happiness, elation). In the event of failure to meet a goal (non-gain, miss, absence of positive outcome), these same individuals are likely to feel dejection-related emotions (e.g., sadness, disappointment). For instance, in the case of the game show contestant, the more he successfully solved anagrams and earned more money, the more he would feel cheerfulness-related emotions such as joy. If the contestant did not solve any anagrams and earned no money, he would likely feel dejection-related emotions such as disappointment. Thus, a promotion focus is associated with sensitivity to the presence or absence of positive outcomes (Higgins, 1996, 1997) with a relative emphasis on aspirations and accomplishments (Higgins, 1996).

1.5.2 Prevention

According to Higgins (1997), a *prevention* focus is activated by the following three (input) variables: oughts, security needs, and non-loss/loss situations. Oughts are an individual's sense of duties, obligations, and responsibilities, goals for how one should be or needs to be. These are standards that denote how one "ought" to act or "should" act, which are independent from the "ideals" that convey how one "wants/hopes" to act. For instance, a retiring professional with a prevention focus may have an ought self-guide that characterizes him as being civic-minded and prompts him to search for volunteer

opportunities. This same individual might also be motivated by security needs such as safety concerns. For example, over the course of his professional career in public service, if he was motivated to feel a sense of personal security he may have prioritized his responsibility to pay back the debts he owed. This goal would result in him quickly satisfying all of his financial obligations, including the mortgage he once had on his home. With a prevention focus, he might be more content living in his home that he paid off, rather than incur financial risk investing in a new “dream” home for his retirement, where he would be anxious and preoccupied with trying to escape a loss-situation (owing money).

While concepts such as oughts and safety needs may be relatively straightforward concepts, non-loss/loss situations bear more explanation. For illustration, assume again that the retiree referenced above is a contestant on a game show. On the show, contestants compete for money through a series of anagram-solving tasks. That is, contestants must unscramble series of letters to form words. In *this* scenario, however, each contestant is given \$5,000 at the start of the game. For each anagram that a contestant solves, he does not incur a financial loss (non-loss). For each one that he does not solve, he loses \$500 (loss). This would be considered a loss/non-loss situation because for those involved there is nothing to be gained by performing well. Instead, one is working to prevent losing what one already has. According to Higgins (1997), this situation would activate a prevention focus because the dynamics of the game mirror prevention concerns.

While it has been explained that oughts, safety, and non-loss/loss activate a prevention focus, it is still necessary to explain what tendencies a prevention focus will

likely yield once activated. One such tendency is a sensitivity to information that informs one about the possibility of negative outcomes. That is, persons with a prevention focus cognitively frame situations such that they are attuned to monitor for the presence or absence of negative information or outcomes. For example, suppose that before the retiree began his career in public service, he had a stint as a law student attempting to pass his bar exam. Assuming he was prevention-focused, this student may have attempted to monitor his performance by asking himself: “How many answers did I probably get wrong so far?”

If he believes that his number of incorrect responses will cause him to fail the exam, then he would have anticipated the presence of a negative outcome. In this case, he may go over his answers again so he can detect any errors that were overlooked. With this prevention-focused law student, it is likely that he would concentrate on avoiding as many wrong answers as possible, which would result in reluctance to guess on questions he was unsure about. Since a prevention focus will lead one to pursue the goal of successful performance with the mindset of “don’t answer incorrectly” rather than “answer correctly”, this type of person might find it more strategic to avoid guessing on a question (i.e., skip it) rather than answering it and taking a chance of getting it wrong. In the interest of passing the exam, however, it is likely that this person would later return to the question and deal with it after all others have been answered. This way, the question would become the sole focus of his/her attention and can be carefully considered before answering. Through these promotion and prevention examples, one should note that the goal (passing the bar exam) was the same across both scenarios, and where the differences in regulatory foci exist are in terms of how this goal was *framed* and pursued.

A second tendency for those with a prevention focus is to pursue goals in a state of vigilance and to focus on accuracy (rather than productivity). This state of vigilance entails a related tendency for prevention-focused individuals to engage in goal-pursuit using vigilance means. Specifically, persons with a prevention focus are likely to frame goal-pursuit in terms of ensuring correct rejections (absence of negative outcomes, or non-losses) and ensuring against mistakes (presence of negative outcomes, or losses).

While prevention-focused individuals are likely to use vigilance means in goal-pursuit, they are also likely to experience certain emotions in the face of correct rejections (successes) and mistakes (failures). Specifically, in the event of successfully meeting a goal (non-loss, correct rejection, absence of negative outcome), prevention-oriented individuals are likely to feel quiescence-related emotions (i.e., calm, relaxed). In the event of failure to meet a goal (loss, mistake, presence of negative outcome), these same individuals are likely to feel agitation-related emotions (i.e., anxiety).

For instance, in the case of the game show contestant, if he successfully solved the anagrams and was able to keep the money he had, he would feel quiescence-related emotions such as calmness or relief (in contrast to the promotion example where success resulted in joy). In the case where the contestant misses correct responses or makes errors, as the number of mistakes and money lost increases the more he would feel agitation-related emotions such as anxiety (in contrast to the promotion example where disappointment was felt). Thus, a prevention focus is associated with sensitivity to the presence or absence of negative outcomes (Higgins, 1996, 1997) with a relative emphasis on duties and obligations (Higgins, 1996).

1.5.3 Early Experiences

Interestingly, research suggests that early experiences in the home can influence which regulatory focus a person is likely to chronically adopt (Higgins, 1987, 1997). For example, in *promotion-oriented* parent-child interactions, a child might be rewarded for behaving in a desirable manner. Specifically, the child might receive a favorite snack for cleaning his room, or \$10 for doing well in school. If the child misbehaved, however, the parents may express disappointment and the child may forfeit any pending rewards (not receive dessert). Through interactions with the child in this promotion-oriented manner, the child receives the message that what matters is the attainment of ideals through accomplishment.

In such cases, success in meeting goals (ideals) represents the presence of positive outcomes (gain, hits, cheerfulness-related emotions), whereas failure to meet goals (ideals) represents the absence of positive outcomes (non-gain, misses, dejection-related emotions). Thus, children can become sensitive to particular types of information or outcomes based on their interactions with parental figures. In the case of a promotion focus, children learn to become attuned to the presence or absence of positive information or outcomes. This sensitivity, in turn, can be used to optimally adjust behavior for goal-pursuit in a manner consistent with the TOTE model. Thus, frequent promotion-oriented parent-child interactions and their attendant goal-pursuit processes set the stage for the development of a chronic, dispositional promotion goal-orientation.

In *prevention-oriented* parent-child interactions, a child might be taught to avoid irresponsible behaviors, or advised to behave in a very prescribed way. Specifically, the child would not experience negative outcomes (nor would he/she receive positive

rewards) from consistently doing homework, or consistently saying “please” and “thank you” when situations so prescribe. However, if the child did not behave as expected, the parents may criticize the child and assign him a punishment. Through interacting with the child in this prevention-oriented manner, the child receives the message that what matters is the fulfillment of duties, responsibilities, and obligations through vigilant attention to his behavior.

In such cases, success in meeting goals (oughts) represents the absence of negative outcomes (non-losses, correct rejections, quiescence-related emotions), whereas failure to meet goals (oughts) represents the presence of negative outcomes (loss, mistakes, agitation-related emotions). Thus, children raised under a prevention orientation learn to become attuned to the absence or presence of negative information or outcomes. This sensitivity, in turn, can be used to optimally adjust behavior for goal-pursuit in a manner consistent with the TOTE model. Thus, frequent exposure to prevention-oriented parent-child interactions and their attendant goal-pursuit processes set the stage for the development of a chronic, dispositional prevention goal-orientation.

1.5.4 Cultural Considerations

While early parent-child interactions can predispose an individual to chronically adopt a particular regulatory focus, research also suggests that culture and socialization practices can also influence which regulatory focus a person is likely to chronically adopt (Lee, Aaker, & Gardner, 2000; Zhang & Mittal, 2007). In Western cultures such as the U.S. and Western Europe, the standard of socialization is individualism (Triandis, 2001). So, the norms, values, and practices of individualist cultures focus on the personal self, prioritize personal goals, and often consider and emphasize how one differs from others

(Markus & Kitayama, 1991; Triandis, 1989). Through socialization, people in these cultures often develop self-concepts that center on uniqueness and distinctiveness from others, and the self is construed as being independent from one's in-groups (Triandis, 2001). However, it is critical to clarify that terms like individualist (and collectivist) reference the nature of a society and do not refer to the psychology of an individual. This is important because while societies are designated as being *either* individualist or collectivist (to be discussed shortly), members of any given society can have self-construals that are highly independent, interdependent, or even both. For instance, while research has shown that individualist cultures are likely to promote the development of independent self-construals in society members, where people define themselves ("who they are") based on personal traits and characteristics (Lee et al., 2000), individualist cultures can and will also contain members who think and act like members of collectivist cultures, because these particular members have self-construals that are highly interdependent (Triandis, 2001).

With the mindset of an independent self-construal there is an emphasis on the hopes, dreams, and ideals of individuals and the value of individual accomplishments are favored more than any consideration of prescribed roles, or collective concerns. So, independents are not as motivated by obligations to others (such as a group), duties, and responsibilities, as they are by self-relevant desires and personal principles. Personal freedom and being "true to oneself" are values that are prioritized in individualist cultures and by people with independent self-construals. The importance of such values has been demonstrated throughout the history and folklore of individualist societies. For example, during the U.S. Civil War, family members made decisions to side with either the Union

or Confederate Army, based on their personal principles and ideologies. In some cases, not all family members were unanimous on which side they elected to align with. Such familial rifts often resulted in “brother fighting brother” on the battlefield, which goes to show that in these societies individual convictions take precedence over even familial bonds.

Given that individualist societies socialize members to value personal freedoms, there are fewer social constraints imposed on people. Thus, there are fewer prescribed rules for how one “should” or “ought” to act, and less severe sanctions when norm violations occur. Given the cultural emphasis on individual liberty and freedom, people in individualist cultures are socialized from an early age to think about their idiosyncratic hopes, dreams, and aspirations (e.g., “What do you want to be when you grow up?”), and are socialized to pursue these goals (e.g., “reach for the stars”, “land of opportunity, where dreams come true”). For all of these types of reasons, individualist Western cultures tend to produce people that are relatively promotion-focused, people who focus on accomplishments and are thus sensitive to signs of achievement and positive outcomes, cues that would indicate success. Again importantly, these statements and characterizations also hold true for people that score high on independent self-construal scales, regardless of their cultural background (Singelis, 2004).

In Eastern cultures, the standard of socialization is collectivism (Triandis, 2001). In a collectivist culture, such things as one’s role in social groups (family, work, community), harmony, and responsibility are valued highly. So, individuals in collectivist cultures are less focused on viewing themselves in terms of being an individual than they are focused on viewing themselves in terms of what group they belong to (Markus &

Kitayama, 1991; Triandis, 1989), what their responsibilities are to the group, maintaining social harmony, and are, therefore, interdependent within their in-groups. Because people are socialized to value group membership (e.g., family) and thus similarities (rather than differences) with close others, collectivist societies foster the development of interdependent self-construals, where the self is defined (“Who am I?”) in relation to connections with others (“I am a father.”). In such cultures, this construal of the self can be seen when a person is asked “How are you doing?” A common response is “*We* are doing fine (Smalley, 2009).” This default response illustrates the mindset of an interdependent person because one is answering from the perspective of one’s group (in contrast to “I am fine”), and the pronoun “you” is interpreted as referring to a group entity such as one’s family rather than a reference of the specific individual.

Given this collectivist mindset, the principles of duty, responsibility, and obligation are prioritized in such cultures, and social harmony and collective well-being are highly valued notions. Meeting these types of standards often require the sacrifice of individual desires. The importance of such values has been demonstrated throughout the history and folklore of collectivist societies. For example, during World War II, the Japanese, concerned about U.S. interference in their military operations, launched a kamikaze attack on the U.S. at Pearl Harbor. Such an act of personal sacrifice was deemed necessary by the Japanese for the long-term collective well-being of their society. Given the emphasis on collective well-being, such acts of suicide were perceived by the Japanese as an honorable cause of death. To give one’s life for one’s family, or country was considered as socially responsible, and therefore, the right thing to do in the face of certain threats (such as the U.S.). Without such sacrifices of individual desires,

cooperation in collective societies would be difficult and the social harmony and well-being of the group would be jeopardized. So, in collectivist cultures, individual self-interest is perceived as a threat. As a result, collectivist cultures have more norms and rules that dictate how one should or ought to act, and more severe sanctions against any deviations from such norms and rules (Triandis, 2001).

Given that people in these prevention-oriented, collectivist societies are not rewarded for following rules and are punished for violating them, people in these societies are sensitive to loss/non-loss situations. In keeping with this mindset, collectivist cultures often include morality classes as a requirement in their educational curriculums. Given the emphasis on strictly prescribed behaviors and the perception of self-interest as threatening to the collective well-being of the group, people in collectivist cultures are socialized to conform to the principles of duty, responsibility, and obligation (e.g., “How does my family think I should behave?”, “What do my parents want me to be when I grow up?”). This conformity is perceived as necessary to avoid negative outcomes (such as interference with the WWII Japanese military operations). Given these perceptions and standards, collectivist Eastern cultures tend to produce people that are relatively prevention-focused, people who are sensitive to signs of negative outcomes that would indicate potential failure or conflict. These statements also hold true for those who score high on interdependence on independence-interdependence scales, or, in other words, those with interdependent self-construals, regardless of their cultural background (Singelis, 2004).

1.6 Persuasion

Understanding the regulatory focus framework is valuable because it helps explain subjective differences between people, and the constructs can be strategically applied in meaningful ways. Given that individuals with differing regulatory foci (promotion vs. prevention) frame and pursue goals in unique ways (eagerness vs. vigilance strategies), it seems fair to say that they can be *motivated* by different cues. One way that these cues may be administered is through persuasion from other people. This persuasion, of course, would occur through some means of communication. One medium of communication might be advertising.

Cesario, Grant, and Higgins (2004) examined the aforementioned possibilities. Specifically, they hypothesized that when messages are framed in a manner consistent with an individual's regulatory focus, they are more persuasive. A rationale behind this hypothesis was the idea that when there is a match between a given message and an individual's regulatory focus, this could generate a sense of "feeling right". This sense of "feeling right", in turn, "transfers" to the perceived "rightness" of what someone is reading, or doing. To examine this possibility, participants in the first study were given messages regarding the importance of consuming more fruits and vegetables.

In the promotion condition, the message was framed in terms of accomplishment (i.e., increased energy, better moods) to situationally induce a promotion orientation. In the prevention condition, the message was framed in terms of safety (i.e., protection of the body from the environment) to situationally induce a prevention orientation. Within each condition, the message was also presented in terms of eager means (gain/non-gain information – e.g. "if you eat the right amount of fruits and vegetables, you can actively

help keep yourself safe from illness and obtain overall good health.”), or vigilant means (nonloss/loss information – e.g. “if you do not eat the right amount of fruits and vegetables, you cannot actively help keep yourself safe from illness and facilitate overall good health.”).

Participants were then asked to rate how persuasive the message was. It was found that the participants in the promotion condition rated the message as more persuasive when framed in terms of eager means than they did when it was framed in terms of vigilant means. Conversely, it was found that participants in the prevention condition found the message more persuasive when it was framed in terms of vigilant means, than they did when it was framed in terms of eager means.

The second study was an extension of the first in that it examined consumer persuasion in terms of *dispositional* regulatory focus. After participants were administered regulatory focus measures (RFQ and unspecified), they were randomly assigned to one of two conditions. In the promotion condition, participants were given an article explaining the benefits of a recently developed after-school program using language framed in terms of eager means (e.g. “The primary reason for supporting this program is because it will advance children’s education and support more children to succeed.”). In the prevention condition, the *same article* was given, but it was written in terms of vigilant means (e.g. “The primary reason for supporting this program is because it will secure children’s education and prevent more children from failing.”).

The results showed that those with a promotion focus found the article framed in terms of eager means more persuasive, while those with a prevention focus found the article framed in terms of vigilant means more persuasive. What these results suggest is

that the persuasiveness of a message can depend on the interaction between target's regulatory focus and the framing of a message. That is, when the framing of the message is congruent, or fits, with one's regulatory focus, messages are more persuasive and the content is perceived as more important and valuable (Kim, 2006; Latimer, Katulak, Mowad & Salovey, 2005; Zhao & Pechmann, 2007). These results are illustrative of what is known as the "regulatory fit effect".

1.7 Regulatory Fit

So, given the aforementioned studies, the regulatory fit effect not only applies to the framing of messages *about* outcomes, but it also, by extension, applies to individuals' appraisals of the *outcomes* themselves. The end result is that a person's subjective value of a message regarding an outcome can become the subjective value of the outcome itself. In other words, this perception of value can, in turn, be projected onto evaluations of things that are (or, are not) of interest to individuals (Camacho, Higgins, & Luger, 2003; Higgins, Idson, Freitas, Spiegel, & Molden, 2003). For example, in the aforementioned after-school program message-framing study, the perceived value in the message of "secure(ing) children's education and prevent(ing) more children from failing" can very easily, through the "transfer" of value, become the perceived value of the program itself. Given this "transfer" of value, individuals with a promotion focus are likely to prefer things that they associate with promotion-oriented end states, while those with a prevention focus are likely to prefer and/or be affected by things that they associate with prevention-oriented end states.

Examples of things that might be referenced in an instance of regulatory fit would be the attributes of products marketed to consumers. Chernev (2004) addressed this idea

when he examined regulatory fit in terms of specific product attributes: hedonic, performance-related, utilitarian, and reliability-related. It was assumed that those with a promotion focus would place more weight on hedonic and performance-related attributes, as those with a promotion focus are more likely to be concerned with hedonic (pleasurable) and positive (performance) outcomes (Chernev, 2004). Conversely, it was assumed that those with a prevention focus would place more weight on utilitarian and reliability-related attributes, as such persons are more likely to be concerned with practicality (utilitarian) and maintaining the absence of negative outcomes (reliability) (Chernev, 2004).

In the first study (Chernev, 2004), participants were randomly assigned to a promotion or prevention condition. Participants in the promotion condition were asked to write down their hopes and aspirations, while those in the prevention condition were asked to write down their duties and obligations. The purpose of this task was to prime participants for a given regulatory orientation. Participants were then asked to complete a paper-and-pencil maze. The maze depicted a mouse inside. The objective was to successfully identify a path for the mouse to exit the maze. However, this objective was *framed* differently according to the experimental condition involved.

In the promotion condition, a piece of cheese was illustrated just *outside* the maze. So, in the promotion condition, the objective was framed in terms of finding a way out of the maze to *get to* the cheese. In the prevention condition a snake was depicted *inside* the maze. So, in the prevention condition, the objective was framed in terms of finding a way out of the maze to *avoid* getting devoured by the snake. After completing the maze, participants in both conditions were presented with a series of decision tasks in

which they were asked to choose between two alternatives, one being superior on a hedonic attribute and the other being superior on a utilitarian attribute. That is, participants were asked to choose between a more pleasurable (hedonic) alternative, or a more practical (utilitarian) alternative.

Participants selected alternatives from a category like toothpaste. For example, in the toothpaste category, participants were asked to choose which alternative was more appealing to them: the one superior in teeth whitening (hedonic), or the one superior in decay prevention (utilitarian). In this pair of options, it is reasonable that teeth whitening was labeled as hedonic, because white teeth are generally regarded as more pleasurable stimuli than yellow teeth. In addition, white teeth are an *ideal*, not a necessity. Decay prevention is a utilitarian concern, because this concern is both useful and necessary, as healthy teeth are necessary to properly process food. As predicted, results indicated that those in the promotion condition were more likely to select the hedonic options, while those in the prevention condition were more likely to select the utilitarian options.

The design of the second study (Chernev, 2004) was similar to that of the first study, but the attributes and categories changed. The attributes examined were performance vs. reliability and the categories used were TV, computer monitor, and car. For instance, in the car category, participants were asked to choose which attribute set they found more appealing: speed and power (performance), or warranty and maintenance (reliability). It was predicted that those in the promotion condition would be more likely to select the performance options. This prediction was logical, given that performance-related attributes such as speed and power relate to such ideals as accomplishment (promotion). It was also predicted that those in the prevention condition

would be more likely to select the reliability options, as reliability relates to such concerns as safety and avoiding negative outcomes such as breaking down (prevention). Results indicated that those in the promotion condition were more likely to select the performance options, while those in the prevention condition were more likely to select the reliability options.

Werth and Foerster (2006) also examined regulatory fit in terms of product attributes when they examined the possibility that consumers based their product evaluations and preferences on comfort vs. safety such that those with a promotion focus would place more weight on the comfort attributes of a product (that which would be *ideal*), whereas those with a prevention focus would be more interested in its safety attributes (that which *ought* to be in place). In the first study, participants were instructed to enter into a computer three promotion goals and three prevention goals. The purpose of this instruction was to measure the regulatory orientation of participants. Regulatory orientation was measured by comparative entry times. That is, the set of goals showing the quickest entry times represented the regulatory orientation that was the strongest in a given participant. The rationale for this means of measurement was that goal strength would be positively correlated with the accessibility of a goal (cf., Clore, 1994; Frijda, 1996, as cited in Werth & Foerster, 2006), thereby manifesting in quicker entry times (Fazio, 1986).

Next, participants were asked to rate twenty items relating to product features of sunglasses and watches. The items asked what types of product features participants preferred for each product. Half the items in the questionnaire were comfort-related features (promotion) half were safety-related features (prevention). Results showed that

promotion-focused individuals valued comfort features more (ideal), while prevention-focused participants placed more value on safety features (ought).

An additional study (Werth and Foerster, 2006) found that not only was a regulatory fit effect apparent in terms of consumer preferences for product features, but also that there was a regulatory fit effect in terms of consumer preferences for product domains. Specifically, participants were asked which product choice they placed more value on: condoms (responsibility), or lipstick (ideal). Results indicated that prevention-focused consumers placed more value on condoms (responsibility), while promotion-focused consumers placed more value on lipstick (ideal). Further, when the nature of a product matched the type of advertising text assigned to it (prevention-framed or promotion-framed), consumers with a matching regulatory focus placed more value on the product than if there was no match.

While research has demonstrated a regulatory fit effect in terms of consumer preferences for product attributes and domains, Chernev (2004b) examined the possibility of a regulatory fit effect in terms of consumer preferences for the “status quo”. That is, he hypothesized that while promotion-focused consumers would be more willing than prevention-focused to assume the risk involved in choosing a new product alternative, prevention-focused consumers would prefer to remain with the status quo product. The rationale for the hypothesis was that as prevention-focused individuals are more sensitive to information regarding negative outcomes (Higgins, 1997), they are likely to place more weight on losses relative to promotion (gain) oriented consumers. Losses, in this case, would be the potential consequences of making selections other than the status quo (representing the perceived safety of that which is known).

Participants were randomly assigned to a promotion or prevention condition. Those in the promotion condition were asked to write about their hopes and aspirations, while those in the prevention condition were asked to write about their duties and obligations. Then, participants across both conditions were presented with a set of two cameras and asked which one they liked better. Each camera was described across four dimensions: lens clarity, ease of use, battery life, and weight. One camera was better in terms of lens clarity and weight, while the other was better in terms of battery life and ease of use. After making their decisions, participants across conditions were then randomly assigned to one of two additional conditions: neutral or status quo.

Participants were then presented with a set of six cameras, two of which were from the first set, and were given the opportunity to change their original choice. Those in the neutral condition were asked “Which option would you choose?”, while those in the status quo condition were asked “Would you stay with your original selection?”. Results indicated that prevention-focused participants were more likely than promotion-focused participants to stay with the status quo option and retain their original choice in the status quo condition, while promotion-focused participants were only marginally more likely to retain their original choice in the neutral condition.

Given the aforementioned studies, it has been demonstrated that regulatory orientation impacts what we notice, look for, prioritize, and what we value. This is relevant in terms of regulatory fit. Individuals tend to place more value on things that they associate with their regulatory orientation. That is, individuals with a promotion focus are likely to prefer things that they associate with promotion-oriented end states,

while those with a prevention focus are likely to prefer and/or be affected by things that they associate with prevention-oriented end state.

Pursuant to these observations, this paper proposes the two main hypotheses:

H1: *The more promotion-focused one is, the more positive product ratings will be if the brand name is associated with promotion concerns and strategies; and*

H2: *The more prevention-focused one is, the more positive product ratings will be if the brand name is associated with prevention concerns and strategies.*

While not the primary foci of this paper, effects based on the following two hypotheses will also be examined:

H3: *As independent self-construal scores increase, the more likely it is that product ratings will be higher for brand names associated with promotion concerns and strategies; and*

H4: *As interdependent self-construal scores increase, the more likely it is that product ratings will be higher for brand names associated with prevention concerns and strategies.*

Should the hypotheses find support, there are implications for their application in terms of marketing. Marketers who sell products internationally will find it useful to customize brand names specific to regional cultures. This strategy could potentially enhance revenues and customer satisfaction, as customers will more strongly identify with such brand names.

CHAPTER II

METHODS

2.1 Participants

Participants consisted of 68 undergraduate Psychology students (17 male, 50 female, 1 unknown). Students received course credit for their research participation. As an incentive for participation, students were also entered into a random drawing for a \$100 gas card. This project was approved by the University's Institutional Review Board.

2.2 Design

For the study, a one factor between-subjects design was implemented. Participants were randomly assigned to one of two conditions. There was no difference between conditions except that, in condition 2, those cars given a promotion-oriented name in condition 1 were given a prevention-oriented name in condition 2, and vice versa. The purpose of this was to counterbalance the brand name types assigned to each car. That is, each car would have an opportunity to be tested under both brand types (promotion vs. prevention).

2.3 Measures and Materials

After signing an informed consent form, participants responded to three individual difference measures administered on a computer. These measures were

administered to each participant in random order to control for potential order biases. The measures were: Promotion-Prevention Scale (Lockwood, Jordan, and Kunda, 2002), Regulatory Focus Questionnaire (Higgins, Friedman, Harlow, Idson, Ayduk, & Taylor, 2001), and the Self-Construal Scale (Singelis, 1994). Both the Promotion-Prevention Scale and the Regulatory Focus Questionnaire were used to assess individual differences in terms of promotion and prevention. The Self-Construal Scale was included to measure individual differences in terms of independent and interdependent self-construal.

2.3.1 Individual Difference Measures

Promotion-Prevention Scale (Lockwood, Jordan, and Kunda, 2002). This scale consists of 18 items and was designed to test for individual differences in terms of promotion and prevention. It uses a 9-point scale (1 = Not at all true of me to 9 = Very true of me). An example promotion item is “I typically focus on the success I hope to achieve in the future”. An example prevention item is “I frequently think about how I can prevent failures in my life”. Reliabilities for the scale’s factors are as follow: promotion $\alpha = .81$, prevention $\alpha = .75$ (see Appendix A for complete version of measures).

Regulatory Focus Questionnaire (Higgins, Friedman, Harlow, Idson, Ayduk, & Taylor, 2001). This questionnaire contains 11 items and is used to measure individual differences in terms of promotion and prevention. It uses a 5-point Likert-type scale. For questions 1 through 8, the anchors are as follow: 1 = never or seldom, 3 = sometimes, and 5 = very often. For question 9: 1 = never true, 3 = sometimes true, and 5 = very often true. For questions 10 and 11: 1 = certainly false and 5 = certainly true. An example promotion item is “How often have you accomplished things that got you “psyched” to work even harder?”. An example prevention item is “How often did you obey rules and

regulations that were established by your parents?”. Reliabilities for the scale’s factors are as follow: promotion $\alpha = .73$, prevention $\alpha = .80$ (see Appendix A).

Self-Construal Scale (Singelis, 1994). This scale consists of 24 items and is used to measure individual differences in terms of independent and interdependent self-construal. It uses a 7-point Likert-type scale (1 = Strongly Disagree to 7 = Strongly Agree). An example independent item is “I enjoy being unique and different from others in many respects”. An example interdependent item is “It is important for me to maintain harmony within my group”. Reliabilities for the scale’s factors are as follow: independence $\alpha = .70$, interdependence $\alpha = .74$ (see Appendix A).

2.3.2 Ratings

Car Ratings. For each of the 6 cars, 6 ratings questions were asked for the purpose of determining how cars of different brand types would be rated in relation to scores on the individual difference measures. For the car ratings, a 5-point scale was used (1 = Strongly Agree to 5 = Strongly Disagree). An example item is “I like this car” (see Appendix B.2).

Team Ratings. For each of the 4 teams, 5 ratings questions were asked for the purpose of determining how teams of different brand types would be rated in relation to scores on the individual difference measures. For the team ratings, a 5-point scale was used (1 = Strongly Agree to 5 = Strongly Disagree). An example item is “This team name fits who I am” (see Appendix B.3).

2.3.3 Recall Questions

Recall Questions. Seven recall questions were asked for each of four cars that participants rated. Six of the questions were true/false questions and one was multiple

choice. The multiple choice item was “What was the name of the car you just saw?”. An example true/false item is “This car has heated seats” (see Appendix B.5).

2.3.4 Demographic Questions

Demographic Questions. Six demographic questions were asked of participants (see Appendix B.6).

2.4 Procedure

Each participant was seated at an individual computer station. Participants completed a series of tasks on a computer. First, participants completed a series of individual difference measures sensitive to differences in regulatory focus and self-construal (see Appendix A). The order of the measures was randomized for each participant (not the order of the items in them). After completing the measures, participants were informed that they would be viewing prototypes of new cars currently in development by manufacturers and that they would be asked to provide ratings for them. However, each car was assigned a hypothetical brand name that was not the actual name of the car. Each brand name assigned to a car was either promotion-oriented or prevention-oriented. That is, each brand name was associated with either promotion concerns, or prevention concerns.

For each car, participants were presented with a picture of the car, the brand name, and information about the car’s features such as the number of airbags, entertainment ports, miles per gallon, acceleration, and length of warranty (see Appendix B.1). Three cars had a promotion-oriented brand name and three cars had a prevention-oriented brand name. Participants were randomly assigned to one of two conditions. In condition 1, participants were asked to give ratings for six hypothetical cars presented on

the computer. Condition 2 was exactly like condition 1 except that the cars received the alternative name type. That is, those cars given a promotion-oriented name in condition 1 were given a prevention-oriented name in condition 2. Conversely, those cars given a prevention-oriented name in condition 1 were given a promotion-oriented name in condition 2. So, the name types assigned to each car were counterbalanced across conditions. In both conditions, after viewing each car, participants were asked to provide a series of ratings before viewing the next car (see Appendix B.2). The purpose of these ratings was to determine how cars of different brand types (promotion vs. prevention) would be rated in relation to scores on the individual difference measures.

After the last car was rated, participants across both conditions were presented with a series of four hypothetical names for sports teams (see Appendix B.3). Participants were asked to imagine these as team names for Cleveland State University. Each team name was either promotion-oriented, or prevention-oriented. That is, each team name was associated with either promotion concerns, or prevention concerns. Two teams had a promotion-oriented name and two had a prevention-oriented name. On the computer, participants were presented with the name of a team. Team names were presented one at a time. For teams, switching the name types in condition 2 was not necessary as there were no photo stimuli presented for team names. Following each team name, participants were asked to provide a series of ratings for the team (see Appendix B.4). Similar to the car ratings, the purpose of these ratings was to determine how teams of differing brand types (promotion vs. prevention) would be rated in relation to scores on the individual difference measures.

After the last team was rated, participants were asked a series of recall questions about cars they were presented with in the first part of the study (see Appendix B.5). This set of questions was exploratory. The purpose of these questions was to examine the possibility that people's recall performance might be based on specific individual differences. For example, someone high in promotion might have better recall of information about cars with promotion brand names compared to cars with prevention brand names. Conversely, someone high in prevention might have better recall of information about cars with prevention brand names compared to cars with promotion brand names. Also for examination was the possibility that promotion-oriented names might relate to better recall of promotion-oriented car features while prevention-oriented names might relate to better recall of prevention-oriented features. For example, promotion-oriented names might relate to better recall of features such as heated seats, while prevention-oriented names might relate to better recall of features such as airbags. After this set of questions, participants were asked demographic questions (see Appendix B.6), then debriefed.

CHAPTER III

RESULTS

3.1 Random Assignment Effectiveness

To determine whether random assignment was effective, it was necessary to examine trait scores across conditions to show there were no unintentional differences between conditions from the onset. The four composite scores that were examined to test the effectiveness of the random assignment procedure were: promotion (PPS), prevention (PPS), independent (Self-Construal Scale), and interdependent (Self-Construal Scale). To make the comparisons, one-way ANOVA's were conducted using the individual difference composite scores as the dependent variables and condition as the independent variable. Results indicated that there were no significant differences between scores across the condition levels (promotion, $p = .38$; prevention, $p = .48$; independent, $p = .38$; interdependent, $p = .57$), suggesting random assignment was effective.

3.2 Promotion-Prevention Scale

This scale had two factors: promotion and prevention. For the promotion factor, the range of scores was from 47 to 81 ($M = 70.81$, $SD = 7.70$) with a median of 72.5 and $\alpha = .81$. For the prevention factor, the range of scores was from 16 to 73 ($M = 49.63$, $SD = 11.61$) with a median of 51.5 and $\alpha = .73$.

3.3 Regulatory Focus Questionnaire

This scale had two factors: promotion and prevention. For the promotion factor, the range of scores was from 15 to 30 ($M = 22.69$, $SD = 3.30$) with a median of 22 and $\alpha = .64$. For the prevention factor, the range of scores was from 7 to 25 ($M = 16.63$, $SD = 3.58$) with a median of 17 and $\alpha = .79$.

3.4 Self-Construal Scale

This scale had two factors: independent self-construal and interdependent self-construal. For the independent factor, the range of scores was from 42 to 84 ($M = 63.29$, $SD = 8.27$) with a median of 63 and $\alpha = .71$. For the interdependence factor, the range of scores was from 31 to 81 ($M = 60.96$, $SD = 8.95$) with a median of 62 and $\alpha = .76$.

3.5 Factor Correlations

Several correlations were examined to help determine the validity of the measures used. A correlation analysis (promotion and prevention) conducted for the Promotion-Prevention Scale (PPS) demonstrated significance ($r = .34$, $p < .01$), as expected based on previous research (e.g., Higgins, 1987). So, the promotion and prevention factor scores were moderately correlated, but not perfectly correlated. Consistent with theory and research (e.g., Higgins, 1987), this positive correlation between promotion and prevention scores supports the notion that these are independent constructs and are not opposite ends of a unidimensional factor. This significant correlation also meant that in analyses dealing with promotion as a predictor, prevention was controlled for, and vice versa. This statistical strategy is consistent with conventional approaches (e.g., Strachman & Gable, 2006). Unlike the PPS, the promotion and prevention factors for the Regulatory

Focus Questionnaire (RFQ) were not significantly correlated ($r = .14, p = .25$).

Implications of this will be discussed shortly.

For the Self-Constructual Scale (SCS), the correlation between its independent and interdependent factors was examined. The correlation was not significant ($r = .11, p = .37$). What was expected and consistent with theory and research was that these factors (independent and interdependent) would have significant correlations with promotion and prevention, respectively (Lee et al., 2000). First, the independent factor of the SCS had a significant correlation with the promotion factor of the PPS ($r = .40, p < .01$). Second, the interdependent factor of the SCS had the same significant correlation with the prevention factor of the PPS ($r = .40, p < .01$). Given these results, the SCS measure demonstrated validity. An analysis of correlations between factors of the RFQ and those of the SCS, however, did not yield significant relationships. Specifically, the promotion factor of the RFQ did not significantly correlate with the independence factor of the SCS ($r = -.04, p = .77$), nor did the prevention factor of the RFQ significantly correlation with the interdependence factor of the SCS ($r = -.07, p = .57$). Given the lack of any significant correlations for factors of the RFQ that were expected, this measure was not used in subsequent analyses for this study. Instead, promotion and prevention scores from the PPS were used in analyses since this measure demonstrated both reliability and validity (See Table 1).

3.6 Car Analysis Preparation

To prepare for analyses of the car ratings, composite variables representing attitudes for each car were created. Given that five of the six ratings questions used a Likert-type scale (See Appendix B), composites were created based on five of the

| | | ppprom | ppprev | scsi | scsc |
|--------|---------------------|----------------|----------------|----------------|----------------|
| ppprom | Pearson Correlation | $\alpha = .81$ | .343(**) | .399(**) | .077 |
| | Sig. (2-tailed) | | .004 | .001 | .535 |
| | N | 68 | 68 | 68 | 68 |
| ppprev | Pearson Correlation | .343(**) | $\alpha = .73$ | .009 | .401(**) |
| | Sig. (2-tailed) | .004 | | .939 | .001 |
| | N | 68 | 68 | 68 | 68 |
| scsi | Pearson Correlation | .399(**) | .009 | $\alpha = .71$ | .109 |
| | Sig. (2-tailed) | .001 | .939 | | .374 |
| | N | 68 | 68 | 68 | 68 |
| scsc | Pearson Correlation | .077 | .401(**) | .109 | $\alpha = .76$ |
| | Sig. (2-tailed) | .535 | .001 | .374 | |
| | N | 68 | 68 | 68 | 68 |

** Correlation is significant at the 0.01 level (2-tailed).

Table I: Factor Correlations and Reliabilities

questions, while the sixth question (“Enter a value between \$10,000 and \$50,000, using \$1,000 increments, that is the most you would be willing to pay for this car”) was analyzed separately. To create the composite variables, responses for rating questions one through five were added together to produce an attitude composite rating for a given car. For example, if a participant’s responses for the first five questions relating to car 1 were 4, 3, 2, 3, 2, then the value for the car 1 composite variable would have been 14 for this case. As there were six cars, six composite variables were created (each one representing ratings for questions one through five for each car).

Then, to evaluate the reliability of the composites, it was necessary to conduct a reliability analysis for each composite variable. In the order of the composite variables (one through six), the alpha values were as follow: .88, .84, .91, .93, .89, and .81. It should be noted that, for car 6, an alternate composite was created which used only questions one through four, as it had a higher reliability ($\alpha = .90$) than the original composite ($\alpha = .81$). So, two composites were created for car 6. Given the aforementioned values, the composite variables were found to be reliable.

Each composite variable was, in turn, used as a dependent variable in subsequent analyses. Specifically, the analyses were conducted using a 2 condition (brand type: promotion vs. prevention) X 2 (trait: high vs. low) between-subjects design. Recall, all participants were presented with images and information pertaining to six different cars presented in the same order. In condition 1, the car participants saw first had a prevention name, while those in condition 2 saw the exact same car and specs, but the first car in condition 2 had a promotion name. So, in the condition portion of the aforementioned ANOVA, the brand names were promotion vs. prevention. In terms of the trait factors, those analyzed were promotion (high vs. low), prevention (high vs. low), independent self-construal (high vs. low), and interdependent self-construal (high vs. low). For a given factor, (i.e., promotion), a median score was computed across cases and a median split was created based on that score. Therefore, scores below the median were treated as “low” for that factor, while scores above the median were treated as “high” for that factor. When categorizing participants based on the median split, there were six instances in which participants had the median score on the independent self-construal factor. Thus, for categorical analyses involving independent self-construal, data from these six participants were not used (Hair, Black, Babin, Anderson, & Tatham, 2006). The factors were based on scores for specific measures. The promotion and prevention factors were based on promotion and prevention scores on the Promotion-Prevention Scale (Lockwood et al., 2002). The independent and interdependent factors were based on independence and interdependence scores Self-Construal Scale (Singelis, 1994).

3.7 Car Ratings (Overall)

For the first car presented, those in condition 1 were exposed to a car with a prevention brand name while those in condition 2 were exposed to a car with a promotion brand name. To test for promotion-focus fit effects (e.g., significant interaction effects), the attitude composite variable for car 1 was used as a dependent variable while promotion scores (median split: high vs. low) and condition (brand type: promotion vs. prevention) were treated as independent variables. Prevention scores were entered as a covariate. A significant interaction was found, $F(1, 66) = 4.77, p < .03$. To interpret this interaction, subsequent analyses were performed. Before these analyses could be performed, it was necessary to create a new variable with four levels representing combinations of promotion scores (median split: high vs. low) and condition (brand type: promotion vs. prevention). Specifically, the four levels were: 1.) low promotion score, brand type promotion, 2.) high promotion score, brand type promotion, 3.) low promotion score, brand type prevention, and 4.) high promotion score, brand type prevention. With this new variable, a one-way ANOVA was performed including Tukey post-hoc contrasts. The one-way ANOVA was significant, $F(3, 66) = 3.53, p < .02$ and the post-hoc contrasts demonstrated (unexpectedly) that people high in promotion were significantly more favorable towards the car when it had a prevention name ($M = 15.88, SD = 5.31$) compared to when it had a promotion name ($M = 11.18, SD = 3.56$), $p = .01$. To test for prevention-focus fit effects, the attitude composite variable for car 1 was used as a dependent variable, while prevention scores (median split: high vs. low) and condition (brand type: promotion vs. prevention) were treated as independent variables. Promotion scores were entered as a covariate. A significant interaction was found, $F(1,$

66) = 4.96, $p < .03$. To interpret this interaction, subsequent analyses were performed. Similar to the previous promotion-fit scenario, before these analyses could be performed, it was necessary to create a new variable with four levels. This time, the new variable represented combinations of *prevention* scores (median split: high vs. low) and condition (brand type: promotion vs. prevention). Specifically, the four levels were: 1.) low prevention score, brand type promotion, 2.) high prevention score, brand type promotion, 3.) low prevention score, brand type prevention, and 4.) high prevention score, brand type prevention. With this new variable, a one-way ANOVA was performed including Tukey post-hoc contrasts. The one-way ANOVA was significant, $F(3, 66) = 3.30, p < .03$. In support of H2, post-hoc contrasts demonstrated that people high in prevention were more favorable towards the car when it had a prevention name ($M = 15.63, SD = 4.05$) compared to when it had a promotion name ($M = 11.00, SD = 4.19$), $p = .01$. So, there was evidence of prevention-fit. To test for independent and interdependent self-construal fit effects, procedures similar to the aforementioned were utilized and no significant effects were found (see Appendix C, Tables 7 and 8).

For the second car presented, those in condition 1 were exposed to a car with a promotion brand name while those in condition 2 were exposed to a car with a prevention brand name. Promotion-focus fit effects were tested for as described in the analyses for the first car. That is, the attitude composite variable for car 2 was used as a dependent variable, while promotion scores (median split: high vs. low) and condition (brand type: promotion vs. prevention) were treated as independent variables as independent variables. Prevention scores were entered as a covariate. A marginally significant interaction was found, $F(1, 66) = 4.77, p = .05$. To interpret this interaction, subsequent analyses were

performed. As before, a new variable was created with four levels. In this case, the four levels represented combinations of promotion scores (median split: high vs. low) and condition (brand type: promotion vs. prevention). Specifically, the four levels were: 1.) low promotion score, brand type promotion, 2.) high promotion score, brand type promotion, 3.) low promotion score, brand type prevention, and 4.) high promotion score, brand type prevention. With this new variable, a one-way ANOVA was performed including Tukey post-hoc contrasts. The one-way ANOVA was not significant, $F(3, 66) = 1.58, p = .20$, nor were any of the Tukey contrasts. So, no promotion-fit effect was found. To test for prevention, independent self-construal, and interdependent self-construal fit effects, procedures similar to the aforementioned were utilized and no significant effects were found (see Appendix C, Tables 10, 11, and 12). Also, for the next two cars presented (cars 3 and 4), no significant fit effects were found in any case (see Appendix C, Tables 13 thru 20).

For car 5, those in condition 1 were shown a car with a prevention brand name while those in condition 2 were exposed to a car with a promotion brand name. In testing for promotion and prevention-fit effects, no significant results were found (see Appendix, Tables 21 and 22). In testing for independent-fit effects (with interdependent self-construal entered as a covariate), the attitude composite variable for car 5 was used as a dependent variable while independent self-construal scores (median split: high vs. low) and condition (brand type: promotion vs. prevention) were treated as independent variables. A significant interaction was found, $F(1, 60) = 10.00, p < .01$. To interpret this interaction, subsequent analyses were performed. As before, a new variable was created with four levels. In this case, the four levels represented combinations of independent

self-construal scores (median split: high vs. low) and condition (brand type: promotion vs. prevention). Specifically, the four levels were: 1.) low independent self-construal score, brand type promotion, 2.) high independent self-construal score, brand type promotion, 3.) low independent self-construal score, brand type prevention, and 4.) high independent self-construal score, brand type prevention. With this new variable, a one-way ANOVA was performed including Tukey post-hoc contrasts. The one-way ANOVA was significant, $F(1, 60) = 3.71, p < .02$. Post hoc analyses demonstrated that in support of H3, people high in independent self-construal were more favorable towards car 5 when it had a promotion name ($M = 16.18, SD = 4.53$) compared to when it had a prevention name ($M = 12.00, SD = 3.36$), $p < .04$. So, there was evidence of independent-fit. Similar testing did not reveal evidence of interdependent-fit (see Appendix, Table 24).

For car 6, those in condition 1 were presented a car with a promotion brand name while those in condition 2 were presented a car with a prevention brand name. In testing for promotion-fit effects (with prevention entered as a covariate), a significant interaction was found, $F(1, 66) = 4.62, p < .04$. A subsequent one-way ANOVA, however, was not significant, $F(3, 66) = 1.55, p = .21$, nor were any of the Tukey contrasts. So, no promotion-fit effect was found. Similar testing did not reveal evidence of prevention, independent, or interdependent fit effects (see Appendix, Tables 26, 27, and 28).

The results described above were based primarily on composites that were created from questions one through five. As described earlier, question six was treated separately, as its responses used a different scale. So, analyses for the cars in terms of question six were treated separately from the previous analyses. Promotion, prevention, independent self-construal, and interdependent self-construal were entered as covariates depending on

which of these variables was used as an IV. For instance, in cases where promotion was an IV, prevention was entered as the covariate, and vice versa. Similar to previous analyses, condition (brand type: promotion vs. prevention) served as an IV in all analyses.

For cars 1, 2, 4, 5, and 6, significant interactions were found in examining for promotion or prevention fit effects, but subsequent analyses proved non-significant. No significant interactions were found for any of these cars when examining for independent or interdependent fit effects. For car 3, no significant interactions were found in any case.

3.8 Car Ratings (Per Question)

To further assess effects, it was necessary to analyze not only overall car ratings as aforementioned, but also ratings for each question asked. Again, the analyses were conducted using a 2 (factor: high vs. low) x 2 condition (brand type: promotion vs. prevention) between-subjects design. Factors analyzed were promotion (high vs. low), prevention (high vs. low), independence (high vs. low), and interdependence (high vs. low). Again, factors were entered as covariates depending on which variable was used as an IV. For example, in cases where promotion was an IV, prevention was entered as the covariate, and vice versa. Similar to previous analyses, condition (brand type: e.g., promotion vs. prevention) served as an IV in all analyses. Fit effects were examined using the same methods as described previously for overall car ratings, including the use of four-level variables for contrasts, and post-hoc analyses. For the per question car ratings, the clearest way to talk about these supplementary results is to focus on what came out as significant.

For car 1, there were some significant findings. In examining for promotion-fit in question 1 (“I like this car.”), a near significant interaction between promotion and condition was found, $F(1, 66) = 3.52, p = .07$. A subsequent one-way ANOVA was also near significant, $F(3, 66) = 2.64, p = .06$ and, unexpectedly, post hoc analyses revealed that people high in promotion rated the car higher when it carried the prevention brand name ($M = 3.29, SD = 1.26$) than they did when it carried the promotion brand name ($M = 2.24, SD = 0.97$), $p < .04$. Second, for question 2 (“It is easy for me to imagine myself owning this car.”), a significant interaction was found between promotion and condition, $F(1, 66) = 5.83, p < .02$. A subsequent one-way ANOVA was significant, $F(3, 66) = 3.30, p < .03$. Similar to question 1, post hocs unexpectedly revealed that people high in promotion rated the car significantly higher in terms of their ability to imagine themselves owning it when it had a prevention name (“Precision”) ($M = 2.83, SD = 1.19$) than they did when it had a promotion brand name (“Prospect”) ($M = 1.71, SD = 0.77$), $p < .01$. A similar effect was revealed for question 3 (“This car fits my personality.”). In addition to the interaction found between promotion and condition, $F(1, 66) = 6.20, p < .02$, a one-way ANOVA was significant, $F(3, 66) = 4.69, p < .01$, and contrasts showed people high in promotion rated the car significantly higher in terms of personality fit when it had a prevention name (“Precision”) ($M = 2.71, SD = 1.21$) than they did when it had a promotion name (“Prospect”) ($M = 1.59, SD = 1.71$), $p < .01$. Again, the findings of the aforementioned contrasts were not expected.

While there was no promotion-fit for car 1, there was near significance in the direction of prevention-fit. For question 3 (“This car fits my personality.”), there was a near significant interaction between prevention and condition, $F(1, 66) = 3.29, p = .08$.

While the aforementioned interaction was only near significant, a subsequent one-way ANOVA proved significant, $F(3, 66) = 3.31, p < .03$, and post hoc contrasts showed that people high in prevention tended to rate the car higher in terms of personality fit when it had a prevention name ($M = 2.63, SD = 1.02$) than they did when it had a promotion name ($M = 1.67, SD = 0.84$), $F(1, 66) = 3.31, p < .02$. Finally, for question 6 (“Enter a value between \$10,000 and \$50,000, using \$1,000 increments, that is the most you would be willing to pay for this car”), there were significant interactions between promotion and condition $F(1, 66) = 5.10, p < .03$ and prevention and condition $F(1, 66) = 5.46, p < .02$. However, subsequent analyses were not significant.

For car 2, question 2 (“It is easy for me to imagine myself owning this car.”), a significant interaction was found between promotion and condition, $F(1, 66) = 5.59, p < .02$. A subsequent one-way ANOVA proved marginally significant, $F(3, 66) = 2.19, p = .05$ (one-tailed test). Contrasts were also marginally significant and demonstrated that, in the direction of support of H1, respondents high in promotion tended to rate the car higher in terms of their ability to imagine themselves owning it when it had a promotion name (“VIP”) ($M = 2.76, SD = 1.15$) than they did when it had a prevention name (“Imperative”) ($M = 2.00, SD = 0.87$), $p = .06$ (one-tailed test). For question 4 (“I would enjoy driving this car.”), there was a significant interaction between promotion and condition, $F(1, 66) = 5.05, p < .03$, but a subsequent one-way ANOVA to conduct contrasts between high promotion in the promotion vs. prevention conditions was nonsignificant, $F(3, 66) = 1.68, p = .18$. For question 6 (“Enter a value between \$10,000 and \$50,000, using \$1,000 increments, that is the most you would be willing to pay for this car”), there was a significant interaction between prevention and condition, $F(1, 66)$

= 4.56, $p < .04$, but a subsequent one-way ANOVA to conduct contrasts between high promotion in the promotion vs. prevention conditions was nonsignificant, ($F(3, 66) = 1.42, p = .25$).

For car 5, there were also significant findings. For question 1 (“I like this car.”), a marginally significant interaction was found between independent self-construal and condition, $F(1, 60) = 4.17, p = .05$. A subsequent one-way ANOVA demonstrated marginal significance, $F(3, 60) = 2.28, p < .05$ (one-tailed test), while post-hoc analyses revealed that, in support of H3, people high in independent self-construal rated the car significantly higher when it had a promotion name (“VIP”) ($M = 3.35, SD = 1.11$) than they did when it had a prevention name (“Imperative”) ($M = 2.33, SD = 1.11, p < .03$ (one-tailed test)). So, there was evidence of independent fit. For question 3 (“This car fits my personality.”), a significant interaction was found between independent self-construal and condition, $F(1, 60) = 10.53, p < .01$. A subsequent one-way ANOVA to conduct contrasts between high independent self-construal scores in the promotion vs. prevention conditions was significant, $F(3, 60) = 3.72, p < .01$ (one-tailed test). Post hoc analyses demonstrated that, in support of H3, people high in independent self-construal rated the car significantly higher in terms of personality fit when it had a promotion name (“VIP”) ($M = 2.88, SD = 1.22$) than they did when it had a prevention name (“Imperative”) ($M = 1.87, SD = 0.83, p < .02$ (one-tailed test)). Question 4 (“I would enjoy driving this car.”) demonstrated a similar pattern of results A significant interaction was found between independent self-construal and condition, $F(1, 60) = 13.96, p < .01$. A subsequent one-way ANOVA was significant, $F(3, 60) = 4.96, p < .01$ (one-tailed test). Post hoc analyses demonstrated that in support of H3, people high in independent self-construal rated the

car significantly higher in terms of personality fit when it had a promotion name (“VIP”) ($M = 3.35$, $SD = 1.06$) than they did when it had a prevention name (“Imperative”) ($M = 2.71$, $SD = 0.91$), $p < .01$ (one-tailed test).

3.9 Team Analysis Preparation

To begin analyses of the team ratings, it was necessary to create composite variables for each team. To create the composite variables, responses for the five ratings questions were added together to produce a total rating for a given team. For example, if a participant’s responses for the questions relating to team 1 were 3, 4, 1, 2, 2, then the value for the car 1 composite variable would have been 12 for this case. As there were four teams, four composite variables were created. Then, to evaluate the reliability of the composites, it was necessary to conduct a reliability analysis for each composite variable. In the order of the composite variables (one through four), the alpha values were as follow: .85, .94, .90, and .92. Given the aforementioned values, the composite variables were found to be reliable.

Each composite variable was, in turn, used as a dependent variable in subsequent analyses. However, sports teams were analyzed differently from the way the cars were analyzed. Given that the names of sports teams presented did not appear with photo stimuli, it was not necessary to counterbalance the brand types between conditions. The brand type for a given team was the same across conditions. For example, in condition 1, team 1 was the “Visionaries” (promotion brand), and in condition 2, it was the same name. Given that there was no variation in the brand type for a given team, a 2 x 2 ANOVA would not have been an appropriate analysis to test the hypotheses for sports teams. Instead, regression equations were used. In the equations, the four factors

(promotion, prevention, independent self-construal, and interdependent self-construal) were used to predict ratings. There were two equations used. Specifically, promotion and prevention scores served as the predictors in one equation, while independent and interdependent self-construal scores served as the predictors in another equation.

3.10 Team Ratings (Overall)

In some instances, scores (promotion, prevention, independence, interdependence) were able to significantly or near significantly predict overall ratings for sports teams. For team 1 (“Visionaries”), promotion scores were marginally significant (in support of H1) in their ability to predict ratings ($\beta = .215$, $t(64) = 1.70$, $p = .05$, one-tailed test) and the collective ability of both predictors (promotion and prevention) to explain a significant portion of the variance in ratings was significant, $R^2 = .078$, $F(1, 64) = 2.74$, $p = .04$ (one-tailed test). In addition, while independent and interdependent self-construal were not able to explain a significant portion of the variance in ratings, $R^2 = .048$, $F(1, 64) = 1.65$, $p = .20$, interdependent self-construal was near significant in its ability to predict ratings for team 1 ($\beta = .221$, $t(64) = 1.82$, $p = .08$). For team 2 (“Guardians”), independent ($\beta = -.271$, $t(64) = -2.41$, $p < .01$) and interdependent self-construal scores (in support of H4) ($\beta = .367$, $t(64) = 3.26$, $p < .01$) scores significantly predicted ratings for the team and were collectively able to explain a significant portion of the variance in ratings, $R^2 = .186$, $F(1, 64) = 7.43$, $p < .01$. For team 3 (“Pioneers”), only interdependent self-construal scores significantly predicted ratings ($\beta = .262$, $t(64) = 2.20$, $p < .03$), while independent and interdependent self-construal were marginally significant in their ability to explain variance in the ratings, $R^2 = .087$, $F(1, 64) = 3.12$, $p = .05$. There were no effects for team 4 (“Citizens”).

3.11 Team Ratings (Per Question)

Similar to overall team ratings, there were some cases of significant or near significant predictions in terms of specific questions. For team 1 (“Visionaries”), question 1 (“I like this team name.”), prevention scores were near significant in their ability to predict ratings ($\beta = .231$, $t(64) = 1.81$, $p = .08$), but the collective ability of both predictors (promotion and prevention) to explain a significant portion of the variance in ratings was nonsignificant, $R^2 = .063$, $F(1, 64) = 2.20$, $p = .12$). For question 3 (“I would be willing to wear clothing with this CSU team name.”), neither promotion, nor prevention scores were significant in their ability to predict ratings, but the collective ability of both IV’s (promotion and prevention) to explain a significant portion of the variance in ratings was near significant, $R^2 = .081$, $F(1, 64) = 2.86$, $p = .06$. For the same question, interdependent self-construal scores were marginally significant in their ability to predict ratings ($\beta = .243$, $t(64) = 2.01$, $p = .05$), but the collective ability of both predictors (independent and interdependent self-construal) to explain a significant portion of the variance in ratings was nonsignificant, $R^2 = .059$, $F(1, 64) = 2.03$, $p = .14$. For question 4 (“I would identify with CSU if it had this team name.”), promotion scores were significant in their ability to predict ratings ($\beta = .226$, $t(64) = 1.77$, $p < .04$, one-tailed test) (in support of H1), but the collective ability of both predictors (promotion and prevention) to explain a significant portion of the variance in ratings was only near significant, $R^2 = .064$, $F(1, 64) = 2.22$, $p = .06$ (one-tailed test). For question 5 (“Assuming I had the money, I would be willing to donate to CSU in the future if it had this team name.”), promotion scores were significant in their ability predict ratings ($\beta = .268$, $t(64) = 2.12$, $p < .02$, one-tailed test) (in support of H1), and the collective ability of

both predictors (promotion and prevention) to explain a significant portion of the variance in ratings was only near significance, $R^2 = .081$, $F(1, 64) = 2.86$, $p < .03$ (one-tailed test).

For team 2 (“Guardians”), the results were highly significant across all five rating questions in support of H4, specifically in cases where independent and interdependent self-construal were the predictors. All values for p were based on a one-tailed test (see Tables 2, 3, and 4). For the same question, interdependent self-construal scores were near significant in their ability to predict ratings ($\beta = .230$, $t(64) = 1.90$, $p = .06$), but the collective ability of both predictors (independent and interdependent self-construal) to explain a significant portion of the variance in ratings was nonsignificant, $R^2 = .054$, $F(1, 64) = 1.84$, $p = .17$. For question 4 (“I would identify with CSU if it had this team name.”), interdependent self-construal scores were significant in their ability to predict ratings ($\beta = .279$, $t(64) = 2.33$, $p < .02$), and the collective ability of both predictors (independent and interdependent self-construal) to explain a significant portion of the variance in ratings was near significant, $R^2 = .079$, $F(1, 64) = 2.80$, $p = .07$. For the same question, interdependent ($\beta = .417$, $t(64) = 3.79$, $p < .01$) self-construal scores significantly predicted ratings, while independent ($\beta = .181$, $t(64) = 1.64$, $p = .05$, one-tailed test) self-construal scores (in the direction of support of H3) marginally predicted ratings. Both predictors (independent and interdependent self-construal) collectively explained a significant portion of the variance in the ratings, $R^2 = .223$, $F(1, 64) = 9.32$, $p < .01$.

For team 4 (“Citizens”), there were some near significant findings. For question 5 (“Assuming I had the money, I would be willing to donate to CSU in the future if it had

| Question | β | t | p |
|---|---------|-------|-----|
| "I like this team name." | -.287 | -2.47 | .01 |
| "This team name fits who I am." | -.260 | -2.24 | .02 |
| "I would be willing to wear clothing with this CSU team name." | -.362 | -3.25 | .00 |
| "I would identify with CSU if it had this team name." | -.265 | -2.37 | .01 |
| "Assuming I had the money, I would be willing to donate to CSU in the future if it had this team name." | -.050 | -.44 | .33 |

Table II: Independent Self-Construal

| Question | β | t | p |
|---|---------|------|-----|
| "I like this team name." | .260 | 2.23 | .02 |
| "This team name fits who I am." | .285 | 2.46 | .01 |
| "I would be willing to wear clothing with this CSU team name." | .309 | 2.77 | .01 |
| "I would identify with CSU if it had this team name." | .384 | 3.43 | .00 |
| "Assuming I had the money, I would be willing to donate to CSU in the future if it had this team name." | .402 | 3.52 | .00 |

Table III: Interdependent Self-Construal

| Question | Predictor(s) | R^2 | $F(1,64)$ | p |
|---|--------------|-------|-----------|-----|
| "I like this team name." | Ind / Inter | .133 | 5.00 | .01 |
| "This team name fits who I am." | Ind / Inter | .133 | 4.98 | .01 |
| "I would be willing to wear clothing with this CSU team name." | Ind / Inter | .202 | 8.22 | .00 |
| "I would identify with CSU if it had this team name." | Ind / Inter | .195 | 7.88 | .00 |
| "Assuming I had the money, I would be willing to donate to CSU in the future if it had this team name." | Ind / Inter | .160 | 6.19 | .00 |

Table IV: Variance Explained by Independent and Interdependent Self-Construal

this team name."), prevention scores were near significant in their ability to predict ratings ($\beta = .194$, $t(64) = 1.50$, $p = .07$, one-tailed test), but the collective ability of both predictors (promotion and prevention) to explain a significant portion of the variance in

ratings was not significant, $R^2 = .057$, $F(1, 64) = 1.96$, $p = .14$ (one-tailed test). For the same question, interdependent self-construal scores were significant in their ability predict ratings ($\beta = .283$, $t(64) = 2.38$, $p < .01$, one-tailed test), and the collective ability of both predictors (independent and interdependent self-construal) to explain a significant portion of the variance in ratings was also significant, $R^2 = .086$, $F(1, 64) = 3.04$, $p < .03$ (one-tailed test). Given that the beta value for interdependent self-construal was in the expected direction (positive), the results for this rating were in support of H4.

3.12 Exploratory Analyses

3.12.1 Recall

For the recall task, there were few significant interactions across questions. For car 2, question 4 (“This car has a speed of 0 to 60 in 12 seconds.”), there was a marginally significant interaction between prevention and condition, $F(1, 66) = 3.96$, $p = .05$. A subsequent one-way ANOVA was near significant, $F(1, 66) = 2.45$, $p = .07$, and post hoc analyses confirmed that those high in prevention tended to have better recall of speed when the car had a promotion name ($M = 0.94$, $SD = 0.25$) than they did when it had a prevention name ($M = 0.56$, $SD = .05$), $p = .08$.

Car 6 had a significant finding. For question 4 (“This car has a speed of 0 to 60 in 13 seconds.”), there was a significant interaction between interdependent self-construal and condition, $F(1, 66) = 12.20$, $p < .01$. A subsequent one-way ANOVA was significant, $F(3, 66) = 4.17$, $p < .01$, and post hoc analyses confirmed that those high in interdependent self-construal recalled speed significantly better when the car had a promotion name ($M = 0.69$, $SD = 0.48$) than they did when it had a prevention name ($M = 0.21$, $SD = 0.42$), $p < .03$.

Those high in interdependent self-construal and prevention tended to have better recall about promotion-branded cars than they did about prevention-branded cars.

3.12.2 Reaction Times

Reaction times were also examined. Reaction time was defined as the amount of time (in milliseconds) that participants spent viewing each car photo, brand name, and features before moving on to the ratings questions for that car. For example, people high in promotion might spend more time viewing a promotion-branded car than a prevention-branded car. Again, the analyses were conducted using a 2 condition (brand type: 1 vs. 2) X 2 (factor: high vs. low) between-subjects design. Factors analyzed were promotion (high vs. low), prevention (high vs. low), independent self-construal (high vs. low), and interdependent self-construal (high vs. low). Again, factors were entered as covariates as appropriate.

In terms of reaction times across cars, there was one significant finding. For car 2, there was a significant interaction between promotion and condition, $F(1, 66) = 4.78, p < .03$. A subsequent one-way ANOVA was significant, $F(3, 66) = 3.40, p < .02$, and post hoc analyses confirmed that those high in promotion had significantly longer reaction times when the car had a promotion name ($M = 16357.76, SD = 10668.82$) than they did when it had a prevention name ($M = 9346.71, SD = 3760.24$), $p < .01$. In sum, reaction times generally did not appear to have any relation to individual differences.

CHAPTER IV

GENERAL DISCUSSION

Consistent with the predictions, all four hypotheses demonstrated some instances of support. Support for H1 was found in overall ratings for team 1. This hypothesis was also supported in individual rating questions for car 2 and team 1. So, the results demonstrated that the more promotion-focused one is, the more positive product ratings will be if the brand name is associated with promotion concerns and strategies. H2 found support in overall ratings for car 1 and individual rating questions for car 1. So, these results supported the hypothesis that the more prevention-focused one is, the more positive product ratings will be if the brand name is associated with prevention concerns and strategies. Evidence for H3 was found in overall ratings for car 5 and individual rating questions for car 5 and team 3. Given this, support was found for the hypothesis that as independent self-construal scores increase, the more likely it is that product ratings will be higher for brand names associated with promotion concerns and strategies. Finally, support for H4 was found both in overall ratings for team 2 and across all individual rating questions for team 2. So, the results showed that as interdependent self-construal scores increase, the more likely it is that product ratings will be higher for brand names associated with prevention concerns and strategies. These aforementioned

demonstrations of support make sense given theory. For instance, given promotion's association with ideals (Higgins, 1997), it is reasonable that when brand names are associated with ideals, their perceived value, through "transfer" (Cesario et al., 2004), can be projected onto products bearing such names. It also makes sense that this transfer of value can result in "fit" (Camacho, Higgins, & Luger, 2003; Higgins, Idson, Freitas, Spiegel, & Molden, 2003) the more a person's regulatory orientation (e.g., promotion) matches the types of associations (e.g. hedonic/promotion vs. utilitarian/prevention). he or she derives from a product.

While there was certainly support for the hypotheses, there were also some unexpected results. For instance, when car 1 had a prevention name ("Precision"), people rated it significantly higher than when it had the promotion name ("Prospect"). This effect existed not accounting for participant scores on individual differences (promotion, prevention, independent self-construal, and interdependent self-construal). Given this, it appears that the name "Precision" may be both promotion and prevention-valenced. Cars bearing the name were rated higher by persons who were high in promotion and/or prevention than by those who were low in these differences. This main effect and its implications were not expected. On the one hand, it is clear why "Precision" would be a prevention-oriented name, as it implies the act of avoiding negative outcomes (misses, errors). However, it is not clear why this same brand name would have a promotion orientation. It could be that, from a promotion perspective, the name "Precision" might directly represent an ideal, rather than implying an act of avoiding negative outcomes as in the prevention perspective. So, it could be the case that certain terms could be associated with both promotion *and* prevention. If this is so, then such terms could be

used as brands to cast a wider marketing net. That, brand names that carry both promotion and prevention association could be used by marketers to appeal to a broader base of consumers. However, such possibilities would bear further investigation.

While car 1's results were unexpected, car 5 yielded some support for H3 when it had a promotion ("VIP") name. Though results indicated that the car was sensitive to independent self-construal, it was not clear why the car was not sensitive to any of the other three differences (promotion, prevention, and interdependent self-construal). Interestingly, car 2, question 2 ("It is easy for me to imagine myself owning this car.") also showed more favorable ratings when it had a "VIP" name, but it was sensitive to promotion in support of H1.

In terms of sports teams, given team 2's consistent support of H4 across all its ratings, it was obviously very sensitive to interdependence and its ratings were significantly predicted by it. Of all the cars and sports teams used in this study, team 2 demonstrated the most consistent support for any of the hypotheses by far. However, it should be acknowledged that, overall, support for the hypotheses was not consistent. Ideally, given theory, support for the hypotheses was expected to appear across all ratings.

4.1 Limitations and Future Directions

While there was some support for the hypotheses, it was not consistent. The lack of consistent support for the hypotheses could have been for any one or more of the following reasons: 1.) confounding variables (unknown) could have negatively affected the sensitivity of the cars and teams to the concepts being examined, 2.) more data is needed for the hypotheses to consistently demonstrate support, and/or 3.) The car and

team names chosen for the study should have been more extreme examples of their respective orientations (promotion vs. prevention) and self-construals (independence vs. interdependence) in order to more sensitively measure the effects of these subtle concepts.

Given the results of this study, it appears that there is much more research needed in order to better understand the relationships between brand types, individual differences, and consumer perceptions. While this study demonstrated some effects indicating that brand types actually matter to consumers, perhaps brand types are not as black and white as the hypotheses suggested. Specifically, it may be overly simplistic to posit that a given brand name (i.e., “Precision”) is oriented to a particular regulatory focus (i.e., prevention). The conceptual associations that consumers make from brand names may be more complex than anticipated, such that there may be individual differences unaccounted for in the conceptual framework of this study. Therefore, future research would need to identify the nature of these potentially unaccounted individual differences. By so doing, it may be easier to predict consumer perceptions of brand types with more reliability. The results of such research could have broad implications for international marketers, especially as relates to the auto industry. For example, auto manufacturers may find that customizing their brand names to match regional markets serves to increase sales. More broadly, brands for other types of products could be customized to regional markets based on the predominant regulatory orientation in a given region. With this new applied marketing perspective, industry markets could become more competitive than ever, benefiting whomever is able to use it most knowledgeably.

It may also be useful to further explore potential variations in regulatory orientation as a function of birth order, parenting style, socioeconomic status, ethnicity, and subcultures. Such exploration could yield detailed information about how various consumers are likely to respond to the branding choices of marketers. Marketers, as a result of such knowledge, would likely be able to produce more effective marketing strategies such that more consumers are served and revenues are enhanced. Such information could also be used by corporations to more effectively target candidates that are in alignment with a given company culture. Further study could potentially take marketing into new and previously unexplored directions.

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APPENDICES

APPENDIX A

(Individual Difference Measures)

Promotion-Prevention Scale (Lockwood, Jordan, and Kunda, 2002)

Using the scale below, please write the appropriate number in the blank beside each item.

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

Scoring Instructions

Promotion: Sum the responses for 3, 5, 6, 8, 12, 14, 16, 17, and 18.

Prevention: Sum the responses for 1, 2, 4, 7, 9, 10, 11, 13, and 15.

Regulatory Focus Questionnaire
(Higgins, Friedman, Harlow, Idson, Ayduk, & Taylor, 2001)

This set of questions asks you HOW FREQUENTLY specific events actually occur or have occurred in your life. Please indicate your answer to each question by circling the appropriate number below it.

1. Compared to most people, are you typically unable to get what you want out of life?

| | | | | |
|--------------------|---|-----------|---|---------------|
| 1 | 2 | 3 | 4 | 5 |
| never or seldom | | sometimes | | very often |

2. Growing up, would you ever “cross the line” by doing things that your parents would not tolerate?

| | | | | |
|--------------------|---|-----------|---|---------------|
| 1 | 2 | 3 | 4 | 5 |
| never or seldom | | sometimes | | very often |

3. How often have you accomplished things that got you “psyched” to work even harder?

| | | | | |
|--------------------|---|-----------|---|---------------|
| 1 | 2 | 3 | 4 | 5 |
| never or seldom | | sometimes | | very often |

4. Did you get on your parents’ nerves often when you were growing up?

| | | | | |
|--------------------|---|-----------|---|---------------|
| 1 | 2 | 3 | 4 | 5 |
| never or seldom | | sometimes | | very often |

5. How often did you obey rules and regulations that were established by your parents?

| | | | | |
|--------------------|---|-----------|---|---------------|
| 1 | 2 | 3 | 4 | 5 |
| never or seldom | | sometimes | | very often |

6. Growing up, did you ever act in ways that your parents thought were objectionable?

| | | | | |
|--------------------|---|-----------|---|---------------|
| 1 | 2 | 3 | 4 | 5 |
| never or seldom | | sometimes | | very often |

7. Do you often do well at different things that you try?

| | | | | |
|-----------|---|-----------|---|-------|
| 1 | 2 | 3 | 4 | 5 |
| never | | sometimes | | very |
| or seldom | | | | often |

8. Not being careful enough has gotten me into trouble at times.

| | | | | |
|-----------|---|-----------|---|-------|
| 1 | 2 | 3 | 4 | 5 |
| never | | sometimes | | very |
| or seldom | | | | often |

9. When it comes to achieving things that are important to me, I find that I don't perform as well as I ideally would like to do.

| | | | | |
|-------|---|-----------|---|------------|
| 1 | 2 | 3 | 4 | 5 |
| never | | sometimes | | very |
| true | | true | | often true |

10. I feel like I have made progress toward being successful in my life.

| | | | | |
|-----------|---|---|---|-----------|
| 1 | 2 | 3 | 4 | 5 |
| certainly | | | | certainly |
| false | | | | true |

11. I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them.

| | | | | |
|-----------|---|---|---|-----------|
| 1 | 2 | 3 | 4 | 5 |
| certainly | | | | certainly |
| false | | | | true |

Scoring Instructions

Promotion: Sum (6 – response 1) + response 3 + response 7 + (6 – response 9) + response 10 + (6 – response 11).

Prevention: Sum (6 – response 2) + (6 – response 4) + response 5 + (6 – response 6) + (6 – response 8).

Self-Constructal Scale
(Singelis, 1994)

SD = Strongly Disagree
D = Disagree
DS = Disagree Somewhat
U = Undecided
AS = Agree Somewhat
A = Agree
SA = Agree

1. I have respect for the authority figures with whom I interact.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

2. It is important for me to maintain harmony within my group.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

3. My happiness depends on the happiness of those around me.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

4. I would offer my seat in a bus to my professor.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

5. I respect people who are modest about themselves.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

6. I will sacrifice my self-interest for the benefit of the group I am in.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

7. I often have the feeling that my relationships with others are more important than my own accomplishments.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

8. I should take into consideration my parents' advice when making education/career plans.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

9. It is important to me to respect decisions made by the group.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

10. I will stay in a group if they need me, even when I'm not happy with the group.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

11. If my brother or sister fails, I feel responsible.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

12. Even when I strongly disagree with group members, I avoid an argument.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

13. I'd rather say "No" directly, than risk being misunderstood.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

14. Speaking up during a class is not a problem for me.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

15. Having a lively imagination is important to me.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

16. I am comfortable with being singled out for praise or rewards.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

17. I am the same person at home that I am at school.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

18. Being able to take care of myself is a primary concern for me.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

19. I act the same way no matter who I am with.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

20. I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

21. I prefer to be direct and forthright when dealing with people I've just met.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

22. I enjoy being unique and different from others in many respects.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

23. My personal identity independent of others, is very important to me.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

24. I value being in good health above everything.

| | | | | | | |
|----|---|----|---|----|---|----|
| SD | D | DS | U | AS | A | SA |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Scoring Instructions

Independent self-construal: Sum the responses for 1 through 12.



Interdependent self-construal: Sum the responses for 13 through 24.

APPENDIX B

(STIMULI)

B.1 Cars

| | |
|--|---|
|  <p>Car 1</p> | <p>Airbags: 2 Entertainment Ports: 4 Speed: 0 to 60 mph in 9 seconds MPG (miles per gallon): 29 city, 37 highway Warranty: 4 years Heated Seats: Yes</p> <p>Condition 1: Precision (prevention) Condition 2: Prospect (promotion)</p> |
|  <p>Car 2</p> | <p>Airbags: 4 Entertainment Ports: 2 Speed: 0 to 60 mph in 10 seconds MPG (miles per gallon): 27 city, 35 highway Warranty: 1 year Heated Seats: Yes</p> <p>Condition 1: VIP (promotion) Condition 2: Imperative (prevention)</p> |
|  <p>Car 3</p> | <p>Airbags: 1 Entertainment Ports: 3 Speed: 0 to 60 mph in 6 seconds MPG (miles per gallon): 19 city, 21 highway Warranty: 2 years Heated Seats: No</p> <p>Condition 1: Assurance (prevention) Condition 2: Crescendo (promotion)</p> |
|  <p>Car 4</p> | <p>Airbags: 2 Entertainment Ports: 2 Speed: 0 to 60 mph in 8 seconds MPG (miles per gallon): 20 city, 24 highway Warranty: 3 years Heated Seats: No</p> <p>Condition 1: Prospect (promotion) Condition 2: Precision (prevention)</p> |

| | |
|--|---|
|  <p>Car 5</p> | <p>Airbags: 4 Entertainment Ports: 0 Speed: 0 to 60 mph in 6 seconds MPG (miles per gallon): 24 city, 31 highway Warranty: 1 year Heated Seats: Yes</p> <p>Condition 1: Imperative (prevention) Condition 2: VIP (promotion)</p> |
|  <p>Car 6</p> | <p>Airbags: 1 Entertainment Ports: 1 Speed: 0 to 60 mph in 9 seconds MPG (miles per gallon): 20 city, 24 highway Warranty: 4 years Heated Seats: No</p> <p>Condition 1: Crescendo (promotion) Condition 2: Assurance (prevention)</p> |

B.2 Car Ratings Questions

1. I like this car.

SA = Strongly Agree A = Agree U = Undecided D = Disagree SD = Strongly Disagree

2. It is easy for me to imagine myself owning this car.

SA = Strongly Agree A = Agree U = Undecided D = Disagree SD = Strongly Disagree

3. This car fits my personality.

SA = Strongly Agree A = Agree U = Undecided D = Disagree SD = Strongly Disagree

4. I would enjoy driving around in this car.

SA = Strongly Agree A = Agree U = Undecided D = Disagree SD = Strongly Disagree

5. This car would be easy to drive.

SA = Strongly Agree A = Agree U = Undecided D = Disagree SD = Strongly Disagree

6. Enter a value between \$10,000 and \$50,000 (using \$1,000 increments) that is the most you would be willing to pay for this car.

B.3 Teams

Team 1: Visionaries (promotion)

Team 2: Guardians (prevention)

Team 3: Pioneers (promotion)

Team 4: Citizens (prevention)

B.4 Team Ratings Questions

1. I like this team name.

SA = Strongly Agree A = Agree U = Undecided D = Disagree SD = Strongly Disagree

2. This team name fits who I am.

SA = Strongly Agree A = Agree U = Undecided D = Disagree SD = Strongly Disagree

3. I would be willing to wear clothing with this CSU team name.

SA = Strongly Agree A = Agree U = Undecided D = Disagree SD = Strongly Disagree

4. I would identify with CSU if this team name were adopted.

SA = Strongly Agree A = Agree U = Undecided D = Disagree SD = Strongly Disagree

5. Assuming I had money to spare, if CSU had this team name, it is likely that I would donate money to this team in the future.

SA = Strongly Agree A = Agree U = Undecided D = Disagree SD = Strongly Disagree

B.5 Recall Task

The recall task used cars 1, 2, 5, and 6 (See Appendix B.1)

What was the name of the car you just saw? (Conditions 1 and 2)

1. VIP
2. Prospect
3. Imperative
4. Crescendo
5. Assurance
6. Precision

T/F Condition 1, Car 1

1. This car has 4 airbags.
2. This car has 4 entertainment ports.
3. This car has a speed of 0 to 60 mph in 9 seconds.
4. This car averages 25 city miles per gallon.
5. This car has a 2 year warranty.
6. This car has heated seats.

T/F Condition 1, Car 2

1. This car has 4 airbags.
2. This car has 1 entertainment ports.
3. This car has a speed of 0 to 60 mph in 12 seconds.
4. This car averages 30 city miles per gallon.
5. This car has a 2 year warranty.
6. This car has heated seats.

T/F Condition 1, Car 5

1. This car has 2 airbags.
2. This car has 1 entertainment ports.
3. This car has a speed of 0 to 60 mph in 6 seconds.
4. This car averages 24 city miles per gallon.
5. This car has a 2 year warranty.
6. This car has heated seats.

T/F Condition 1, Car 6

1. This car has 1 airbags.
2. This car has 1 entertainment ports.
3. This car has a speed of 0 to 60 mph in 13 seconds.
4. This car averages 26 city miles per gallon.
5. This car has a 2 year warranty.
6. This car has no heated seats.

T/F Condition 2, Car 1

1. This car has 4 airbags.
2. This car has 4 entertainment ports.
3. This car has a speed of 0 to 60 mph in 9 seconds.
4. This car averages 25 city miles per gallon.
5. This car has a 2 year warranty.
6. This car has heated seats.

T/F Condition 2, Car 2

1. This car has 4 airbags.
2. This car has 1 entertainment ports.
3. This car has a speed of 0 to 60 mph in 12 seconds.
4. This car averages 30 city miles per gallon.
5. This car has a 2 year warranty.
6. This car has heated seats.

T/F Condition 2, Car 5

1. This car has 2 airbags.
2. This car has 1 entertainment ports.
3. This car has a speed of 0 to 60 mph in 6 seconds.
4. This car averages 24 city miles per gallon.
5. This car has a 2 year warranty.
6. This car has heated seats.

T/F Condition 2, Car 6

1. This car has 1 airbags.
2. This car has 1 entertainment ports.
3. This car has a speed of 0 to 60 mph in 13 seconds.
4. This car averages 26 city miles per gallon.
5. This car has a 2 year warranty.
6. This car has no heated seats.

Where do you think this car was made? (Conditions 1 and 2)

1. US
2. Japan
3. Germany
4. None of the above

B.6 Demographic Questions

1. What is your sex?

1 = Male 2 = Female 3 = Prefer not to answer

2. What is your ethnicity?

1 = Caucasian 2 = African-American 3 = Hispanic 4 = Asian 5 = Other
6 = Prefer not to answer

3. Have you ever lived in other countries?

1 = Yes 2 = No 3 = Prefer not to answer

4. If yes, where and for how long? Type your answer. If no, type “no”. If you prefer not to answer, please type “prefer not to answer”.

5. Do you have recent immigrants in your family? (e.g. parents, siblings)

1 = Yes 2 = No 3 = Prefer not to answer

6. If yes, what country are they from? Type your answer. If no, type “no”. If you prefer not to answer, please type “prefer not to answer”.

APPENDIX C
(ANOVA TABLES)

Tests of Between-Subjects Effects

Dependent Variable: car1ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 193.904(a) | 4 | 48.476 | 2.624 | .043 |
| Intercept | 1065.364 | 1 | 1065.364 | 57.672 | .000 |
| msprev | 1.164 | 1 | 1.164 | .063 | .803 |
| msprom | 3.427 | 1 | 3.427 | .185 | .668 |
| cond | 102.131 | 1 | 102.131 | 5.529 | .022 |
| msprom * cond | 88.167 | 1 | 88.167 | 4.773 | .033 |
| Error | 1163.787 | 63 | 18.473 | | |
| Total | 13349.000 | 68 | | | |
| Corrected Total | 1357.691 | 67 | | | |

a R Squared = .143 (Adjusted R Squared = .088)

Table V: Car 1 Promotion

Tests of Between-Subjects Effects

Dependent Variable: car1ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 197.035(a) | 4 | 49.259 | 2.674 | .040 |
| Intercept | 923.350 | 1 | 923.350 | 50.119 | .000 |
| msprom | 14.764 | 1 | 14.764 | .801 | .374 |
| msprev | .863 | 1 | .863 | .047 | .829 |
| cond | 99.381 | 1 | 99.381 | 5.394 | .023 |
| msprev * cond | 91.298 | 1 | 91.298 | 4.956 | .030 |
| Error | 1160.656 | 63 | 18.423 | | |
| Total | 13349.000 | 68 | | | |
| Corrected Total | 1357.691 | 67 | | | |

a R Squared = .145 (Adjusted R Squared = .091)

Table VI: Car 1 Prevention

Tests of Between-Subjects Effects

Dependent Variable: car1ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 119.953(a) | 4 | 29.988 | 1.610 | .184 |
| Intercept | 766.009 | 1 | 766.009 | 41.124 | .000 |
| msc | 22.148 | 1 | 22.148 | 1.189 | .280 |
| msi | 10.948 | 1 | 10.948 | .588 | .446 |
| cond | 69.730 | 1 | 69.730 | 3.744 | .058 |
| msi * cond | 22.613 | 1 | 22.613 | 1.214 | .275 |
| Error | 1061.725 | 57 | 18.627 | | |
| Total | 11974.000 | 62 | | | |
| Corrected Total | 1181.677 | 61 | | | |

a R Squared = .102 (Adjusted R Squared = .038)

Table VII: Car 1 Independent

Tests of Between-Subjects Effects

Dependent Variable: car1ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 97.900(a) | 4 | 24.475 | 1.287 | .286 |
| Intercept | 1256.222 | 1 | 1256.222 | 66.069 | .000 |
| msi | 10.981 | 1 | 10.981 | .578 | .450 |
| msc | 24.046 | 1 | 24.046 | 1.265 | .265 |
| cond | 73.105 | 1 | 73.105 | 3.845 | .055 |
| msc * cond | .560 | 1 | .560 | .029 | .864 |
| Error | 1083.778 | 57 | 19.014 | | |
| Total | 11974.000 | 62 | | | |
| Corrected Total | 1181.677 | 61 | | | |

a R Squared = .083 (Adjusted R Squared = .018)

Table VIII: Car 1 Interdependent

Tests of Between-Subjects Effects

Dependent Variable: car2ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 72.552(a) | 4 | 18.138 | 1.200 | .320 |
| Intercept | 1043.079 | 1 | 1043.079 | 69.013 | .000 |
| msprev | 1.988 | 1 | 1.988 | .132 | .718 |
| msprom | .475 | 1 | .475 | .031 | .860 |
| cond | 11.180 | 1 | 11.180 | .740 | .393 |
| msprom * cond | 60.767 | 1 | 60.767 | 4.021 | .049 |
| Error | 952.198 | 63 | 15.114 | | |
| Total | 12963.000 | 68 | | | |
| Corrected Total | 1024.750 | 67 | | | |

a R Squared = .071 (Adjusted R Squared = .012)

Table IX: Car 2 Promotion

Tests of Between-Subjects Effects

Dependent Variable: car2ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 33.477(a) | 4 | 8.369 | .532 | .713 |
| Intercept | 1033.402 | 1 | 1033.402 | 65.677 | .000 |
| msprom | 3.395 | 1 | 3.395 | .216 | .644 |
| msprev | .004 | 1 | .004 | .000 | .987 |
| cond | 10.495 | 1 | 10.495 | .667 | .417 |
| msprev * cond | 21.692 | 1 | 21.692 | 1.379 | .245 |
| Error | 991.273 | 63 | 15.734 | | |
| Total | 12963.000 | 68 | | | |
| Corrected Total | 1024.750 | 67 | | | |

a R Squared = .033 (Adjusted R Squared = -.029)

Table X: Car 2 Prevention

Tests of Between-Subjects Effects

Dependent Variable: car2ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 93.940(a) | 4 | 23.485 | 1.813 | .139 |
| Intercept | 583.178 | 1 | 583.178 | 45.015 | .000 |
| msc | 65.473 | 1 | 65.473 | 5.054 | .028 |
| msi | .414 | 1 | .414 | .032 | .859 |
| cond | 4.864 | 1 | 4.864 | .375 | .542 |
| msi * cond | 31.318 | 1 | 31.318 | 2.417 | .126 |
| Error | 738.447 | 57 | 12.955 | | |
| Total | 11572.000 | 62 | | | |
| Corrected Total | 832.387 | 61 | | | |

a. R Squared = .113 (Adjusted R Squared = .051)

Table XI: Car 2 Independent

Tests of Between-Subjects Effects

Dependent Variable: car2ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 62.663(a) | 4 | 15.666 | 1.160 | .338 |
| Intercept | | 1 | 1075.200 | 79.621 | .000 |
| msi | .438 | 1 | .438 | .032 | .858 |
| msc | 61.938 | 1 | 61.938 | 4.587 | .037 |
| cond | 3.915 | 1 | 3.915 | .290 | .592 |
| msc * cond | .040 | 1 | .040 | .003 | .957 |
| Error | 769.724 | 57 | 13.504 | | |
| Total | 11572.000 | 62 | | | |
| Corrected Total | 832.387 | 61 | | | |

a. R Squared = .075 (Adjusted R Squared = .010)

Table XII: Car 2 Interdependent

Tests of Between-Subjects Effects

Dependent Variable: car3ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 153.685(a) | 4 | 38.421 | 1.813 | .137 |
| Intercept | 1185.329 | 1 | 1185.329 | 55.934 | .000 |
| msprev | 58.518 | 1 | 58.518 | 2.761 | .102 |
| msprom | 58.026 | 1 | 58.026 | 2.738 | .103 |
| cond | 3.160 | 1 | 3.160 | .149 | .701 |
| msprom * cond | 17.145 | 1 | 17.145 | .809 | .372 |
| Error | 1335.080 | 63 | 21.192 | | |
| Total | 19870.000 | 68 | | | |
| Corrected Total | 1488.765 | 67 | | | |

a R Squared = .103 (Adjusted R Squared = .046)

Table XIII: Car 3 Promotion

Tests of Between-Subjects Effects

Dependent Variable: car3ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 143.536(a) | 4 | 35.884 | 1.681 | .166 |
| Intercept | 1213.345 | 1 | 1213.345 | 56.824 | .000 |
| msprom | 54.153 | 1 | 54.153 | 2.536 | .116 |
| msprev | 52.309 | 1 | 52.309 | 2.450 | .123 |
| cond | 3.021 | 1 | 3.021 | .141 | .708 |
| msprev * cond | 6.996 | 1 | 6.996 | .328 | .569 |
| Error | 1345.229 | 63 | 21.353 | | |
| Total | 19870.000 | 68 | | | |
| Corrected Total | 1488.765 | 67 | | | |

a R Squared = .096 (Adjusted R Squared = .039)

Table XIV: Car 3 Prevention

Tests of Between-Subjects Effects

Dependent Variable: car3ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 7.427(a) | 4 | 1.857 | .078 | .989 |
| Intercept | 1440.276 | 1 | 1440.276 | 60.730 | .000 |
| msc | 5.700 | 1 | 5.700 | .240 | .626 |
| msi | .475 | 1 | .475 | .020 | .888 |
| cond | 1.798 | 1 | 1.798 | .076 | .784 |
| msi * cond | .298 | 1 | .298 | .013 | .911 |
| Error | 1351.814 | 57 | 23.716 | | |
| Total | 18371.000 | 62 | | | |
| Corrected Total | 1359.242 | 61 | | | |

a R Squared = .005 (Adjusted R Squared = -.064)

Table XV: Car 3 Independent

Tests of Between-Subjects Effects

Dependent Variable: car3ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 7.936(a) | 4 | 1.984 | .084 | .987 |
| Intercept | 1685.038 | 1 | 1685.038 | 71.077 | .000 |
| msi | .422 | 1 | .422 | .018 | .894 |
| msc | 5.819 | 1 | 5.819 | .245 | .622 |
| cond | 1.868 | 1 | 1.868 | .079 | .780 |
| msc * cond | .806 | 1 | .806 | .034 | .854 |
| Error | 1351.306 | 57 | 23.707 | | |
| Total | 18371.000 | 62 | | | |
| Corrected Total | 1359.242 | 61 | | | |

a R Squared = .006 (Adjusted R Squared = -.064)

Table XVI: Car 3 Interdependent

Tests of Between-Subjects Effects

Dependent Variable: car4ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 74.877(a) | 4 | 18.719 | .617 | .652 |
| Intercept | 1100.883 | 1 | 1100.883 | 36.285 | .000 |
| msprev | 28.940 | 1 | 28.940 | .954 | .332 |
| msprom | 31.089 | 1 | 31.089 | 1.025 | .315 |
| cond | 1.518 | 1 | 1.518 | .050 | .824 |
| msprom * cond | 3.040 | 1 | 3.040 | .100 | .753 |
| Error | 1911.402 | 63 | 30.340 | | |
| Total | 17497.000 | 68 | | | |
| Corrected Total | 1986.279 | 67 | | | |

a R Squared = .038 (Adjusted R Squared = -.023)

Table XVII: Car 4 Promotion

Tests of Between-Subjects Effects

Dependent Variable: car4ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 72.651(a) | 4 | 18.163 | .598 | .665 |
| Intercept | 1092.520 | 1 | 1092.520 | 35.968 | .000 |
| msprom | 33.119 | 1 | 33.119 | 1.090 | .300 |
| msprev | 26.129 | 1 | 26.129 | .860 | .357 |
| cond | 1.463 | 1 | 1.463 | .048 | .827 |
| msprev * cond | .814 | 1 | .814 | .027 | .871 |
| Error | 1913.629 | 63 | 30.375 | | |
| Total | 17497.000 | 68 | | | |
| Corrected Total | 1986.279 | 67 | | | |

a R Squared = .037 (Adjusted R Squared = -.025)

Table XVIII: Car 4 Prevention

Tests of Between-Subjects Effects

Dependent Variable: car4ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 131.252(a) | 4 | 32.813 | 1.210 | .317 |
| Intercept | 940.067 | 1 | 940.067 | 34.666 | .000 |
| msc | 40.461 | 1 | 40.461 | 1.492 | .227 |
| msi | 53.702 | 1 | 53.702 | 1.980 | .165 |
| cond | 9.512 | 1 | 9.512 | .351 | .556 |
| msi * cond | 18.911 | 1 | 18.911 | .697 | .407 |
| Error | 1545.716 | 57 | 27.118 | | |
| Total | 15868.000 | 62 | | | |
| Corrected Total | 1676.968 | 61 | | | |

a R Squared = .078 (Adjusted R Squared = .014)

Table XIX: Car 4 Independent

Tests of Between-Subjects Effects

Dependent Variable: car4ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 114.078(a) | 4 | 28.519 | 1.040 | .395 |
| Intercept | 1942.560 | 1 | 1942.560 | 70.847 | .000 |
| msi | 54.711 | 1 | 54.711 | 1.995 | .163 |
| msc | 38.291 | 1 | 38.291 | 1.397 | .242 |
| cond | 10.682 | 1 | 10.682 | .390 | .535 |
| msc * cond | 1.737 | 1 | 1.737 | .063 | .802 |
| Error | 1562.890 | 57 | 27.419 | | |
| Total | 15868.000 | 62 | | | |
| Corrected Total | 1676.968 | 61 | | | |

a R Squared = .068 (Adjusted R Squared = .003)

Table XX: Car 4 Interdependent

Tests of Between-Subjects Effects

Dependent Variable: car5ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 123.416(a) | 4 | 30.854 | 1.575 | .192 |
| Intercept | 1881.802 | 1 | 1881.802 | 96.036 | .000 |
| msprev | 37.336 | 1 | 37.336 | 1.905 | .172 |
| msprom | 69.339 | 1 | 69.339 | 3.539 | .065 |
| cond | 9.973 | 1 | 9.973 | .509 | .478 |
| msprom * cond | 35.927 | 1 | 35.927 | 1.833 | .181 |
| Error | 1234.466 | 63 | 19.595 | | |
| Total | 16300.000 | 68 | | | |
| Corrected Total | 1357.882 | 67 | | | |

a R Squared = .091 (Adjusted R Squared = .033)

Table XXI: Car 5 Promotion

Tests of Between-Subjects Effects

Dependent Variable: car5ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 112.008(a) | 4 | 28.002 | 1.416 | .239 |
| Intercept | 882.540 | 1 | 882.540 | 44.627 | .000 |
| msprom | 75.200 | 1 | 75.200 | 3.803 | .056 |
| msprev | 30.448 | 1 | 30.448 | 1.540 | .219 |
| cond | 9.638 | 1 | 9.638 | .487 | .488 |
| msprev * cond | 24.518 | 1 | 24.518 | 1.240 | .270 |
| Error | 1245.874 | 63 | 19.776 | | |
| Total | 16300.000 | 68 | | | |
| Corrected Total | 1357.882 | 67 | | | |

a R Squared = .082 (Adjusted R Squared = .024)

Table XXII: Car 5 Prevention

Tests of Between-Subjects Effects

Dependent Variable: car5ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 203.364(a) | 4 | 50.841 | 2.739 | .037 |
| Intercept | 1190.656 | 1 | 1190.656 | 64.147 | .000 |
| msc | .346 | 1 | .346 | .019 | .892 |
| msi | 7.937 | 1 | 7.937 | .428 | .516 |
| cond | 6.637 | 1 | 6.637 | .358 | .552 |
| msi * cond | 185.758 | 1 | 185.758 | 10.008 | .002 |
| Error | 1057.991 | 57 | 18.561 | | |
| Total | 14384.000 | 62 | | | |
| Corrected Total | 1261.355 | 61 | | | |

a R Squared = .161 (Adjusted R Squared = .102)

Table XXIII: Car 5 Independent

Tests of Between-Subjects Effects

Dependent Variable: car5ratings

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 26.945(a) | 4 | 6.736 | .311 | .869 |
| Intercept | 1440.551 | 1 | 1440.551 | 66.519 | .000 |
| msi | 7.595 | 1 | 7.595 | .351 | .556 |
| msc | .001 | 1 | .001 | .000 | .994 |
| cond | 9.787 | 1 | 9.787 | .452 | .504 |
| msc * cond | 9.340 | 1 | 9.340 | .431 | .514 |
| Error | 1234.410 | 57 | 21.656 | | |
| Total | 14384.000 | 62 | | | |
| Corrected Total | 1261.355 | 61 | | | |

a R Squared = .021 (Adjusted R Squared = -.047)

Table XXIV: Car 5 Interdependent

Tests of Between-Subjects Effects

Dependent Variable: rating1-4; alph = .89

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 31.951(a) | 4 | 7.988 | 1.315 | .274 |
| Intercept | 289.645 | 1 | 289.645 | 47.684 | .000 |
| msprev | 3.760 | 1 | 3.760 | .619 | .434 |
| msprom | .020 | 1 | .020 | .003 | .954 |
| cond | 2.700 | 1 | 2.700 | .445 | .507 |
| msprom * cond | 28.080 | 1 | 28.080 | 4.623 | .035 |
| Error | 382.681 | 63 | 6.074 | | |
| Total | 4165.000 | 68 | | | |
| Corrected Total | 414.632 | 67 | | | |

a R Squared = .077 (Adjusted R Squared = .018)

Table XXV: Car 6 Promotion

Tests of Between-Subjects Effects

Dependent Variable: rating1-4; alph = .89

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 23.344(a) | 4 | 5.836 | .940 | .447 |
| Intercept | 323.434 | 1 | 323.434 | 52.075 | .000 |
| msprom | 1.260 | 1 | 1.260 | .203 | .654 |
| msprev | .768 | 1 | .768 | .124 | .726 |
| cond | 2.461 | 1 | 2.461 | .396 | .531 |
| msprev * cond | 19.472 | 1 | 19.472 | 3.135 | .081 |
| Error | 391.289 | 63 | 6.211 | | |
| Total | 4165.000 | 68 | | | |
| Corrected Total | 414.632 | 67 | | | |

a R Squared = .056 (Adjusted R Squared = -.004)

Table XXVI: Car 6 Prevention

Tests of Between-Subjects Effects

Dependent Variable: rating1-4; alph = .89

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 30.951(a) | 4 | 7.738 | 1.545 | .202 |
| Intercept | 256.137 | 1 | 256.137 | 51.135 | .000 |
| msc | 4.086 | 1 | 4.086 | .816 | .370 |
| msi | 25.679 | 1 | 25.679 | 5.126 | .027 |
| cond | .208 | 1 | .208 | .042 | .839 |
| msi * cond | .551 | 1 | .551 | .110 | .741 |
| Error | 285.517 | 57 | 5.009 | | |
| Total | 3685.000 | 62 | | | |
| Corrected Total | 316.468 | 61 | | | |

a R Squared = .098 (Adjusted R Squared = .034)

Table XXVII: Car 6 Independent

Tests of Between-Subjects Effects

Dependent Variable: rating1-4; alph = .89

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|---------|------|
| Corrected Model | 57.943(a) | 4 | 14.486 | 3.194 | .020 |
| Intercept | 494.163 | 1 | 494.163 | 108.954 | .000 |
| msi | 23.554 | 1 | 23.554 | 5.193 | .026 |
| msc | 3.984 | 1 | 3.984 | .878 | .353 |
| cond | .224 | 1 | .224 | .049 | .825 |
| msc * cond | 27.543 | 1 | 27.543 | 6.073 | .017 |
| Error | 258.525 | 57 | 4.536 | | |
| Total | 3685.000 | 62 | | | |
| Corrected Total | 316.468 | 61 | | | |

a R Squared = .183 (Adjusted R Squared = .126)

Table XXVIII: Car 6 Interdependent