

**The Effect of Color on Perception of Individual and Brand Personality Traits and
Approach-Avoidance Behaviors: An Implicit Theory Perspective**

by

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ABSTRACT

The objectives of this study were three-fold: a) to examine the effect of color (red/blue) on perceptions of individual/ brand personality traits (introverted/extroverted); b) to examine whether the above effect is moderated by the perceiver's implicit theory (entity/incremental) of the perceiver; c) to examine how individual and brand personality perceptions influence approach-avoidance behaviors (interactional and purchase intent). Data was collected using an online experiment with 227 undergraduate students. Results revealed that the perceiver's implicit theory significantly interacted with color to affect perceptions of brand personality, but not individual personality. Incremental theorists perceived brand logos in red to be more extroverted in personality and brand logos in blue to be more introverted in personality, compared to entity theorists. Results showed a significant influence of individual personality perceptions on interactional intent and brand personality perceptions on purchase intent. The more extroverted (introverted) the perception of person and brand, the higher (lower) the interactional and purchase intent.

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CHAPTER I. INTRODUCTION

Consumers color choices in clothing are closely tied to their personalities (Frank & Gilovich, 1988; French & Alexander, 1972; Lange & Rentfrow, 2007; Niesta Kayser, Elliot, & Feltman, 2010; Eysenck, 1981). It was found by French and Alexander (1972) that when shown different colors, participants who reported a preference for the color blue tended to be calmer while those who reported a preference for yellow were seen as having feelings of positivity. Eysenck (1981) suggested that introverts prefer calm colors such as blue and green, whereas extroverts prefer exciting colors such as red and orange due to their need for arousal. While this color preference explains the link between color and perceptions of own personality, the question of how others perceive personality based on color remains. According to Elliot and Maier (2007), color communicates specific information both to one's own self and to others. In a study done by Frank and Gilovich (1988), it was found that athletes wearing the color black not only acted more aggressive, but also appeared more aggressive to others. Niesta Kayser et al. (2010) found that when wearing the color red, women were perceived to be bold, exciting, and desirable to men. As seen in the above studies, the color a person is wearing is used as information by the self and others to evaluate personality traits of the wearer.

In addition to personality judgments of people based on the color of apparel being worn, color associations may also be applied to personality judgments of brands (Gordon, Finlay, & Watts, 1994; Labrecque & Milne, 2012). Brand personality has been defined by Aaker (1999) as human characteristics which are associated with a brand. It has been proposed that brands are attitude objects and can be thought to have personality traits that create symbolic meaning for a consumer and people choose brands that reflect their personality in a given situation (Aaker, 1999). In short, brands are a way of expressing oneself and creating a sense of self (Belk, 1988;

Fournier, 1998). Labrecque and Milne (2012) state that brands employ color to create an identity in the marketplace and to set themselves apart from competition. For example, Pepsi has claimed blue as the color associated with their brand while Coca-Cola is associated with the color red. These color associations have created differentiation between the two brands in the eyes of consumers. Thus, the color associated with a brand solidifies the identity of the brand and also serves as a source of recognition (Abril, Olazabal, & Cava, 2009). In the study done by Labrecque and Milne (2012), color was found to be an important factor in creating perceptions about a brand's personality. This study found a significant relationship between color and brand logo personality. More specifically, white and pink logos were associated with sincerity, red logos were associated with excitement, blue was linked to competence, black, pink, and purple were associated with sophistication, and brown logos were found to be associated with ruggedness. Gordon et al. (1994) demonstrated that the color of a package and logo directly influences the perception of a brand's personality and also conveys brand meaning to the consumer. It was found that certain colors convey different features of a brand such a quality of the brand and expected taste (Gordon et al., 1994).

Color also plays a large role in approach-avoidance behaviors. Elliot, Maier, Moller, Friedman, and Meinhardt (2007) posit that people have an innate reaction to color. Through this reaction a motivated behavior is produced: either approach or avoidance (Elliot et al., 2007). The model of color and psychological functioning developed by Elliot et al. (2007), can be explained in six principles: (1) colors represent certain significance, (2) color significance is derived from two foundations: "biology" and "learned associations" (p. 251), (3) color triggers the assessment of stimuli; (4) in turn, this assessment motivates behavior, (5) the process from recognizing significance through the motivational behavior is all non-conscious, (6) and color evokes varied

feelings in different circumstances (Elliot & Maier, 2007). In this study, postulate number four will be applied to examine the approach or avoidance behaviors of interactional intent and purchase intent resulting from the personality assessments of individual and brand color stimuli respectively. Interactional intent is defined as the motivation behind any verbal or gestural approach towards another individual (Loftin, Odom, & Lantz, 2007). Spears and Singh (2004) define purchase intent as “an individual’s conscious plan to make an effort to purchase a brand” (p.56).

While there are multiple studies on color and individual personality perception (Frank & Gilovich, 1988; Niesta Kayser et al., 2010) as well as color and brand personality perception (Aaker, 1999; Abril et al., 2009; Belk, 1988; Fournier, 1998; Gordon et al., 1994; Labrecque & Milne, 2012), there is a gap in the literature in examining this relationship from the perceiver’s implicit theory perspective. Implicit theory posits that there are two assumptions made by people regarding the malleability of personal traits: incremental theorists believe that personality traits are malleable and entity theorists believe that personality traits are fixed (Dweck, Chiu, & Hong, 1995). These assumptions create a basis for interpreting social information and making judgments from that information (Gervey, Chiu, Hong, & Dweck, 1999). Entity theorists believe that personality traits are fixed and cannot be changed. These fixed traits influence how a person behaves and will be consistent throughout different situations (Anderson, 1995). When an entity theorist is trying to understand personality, they will make judgments based on the person’s underlying traits (Gervey et al., 1999). In contrast, incremental theorists believe that personality traits are dynamic and malleable (Anderson, 1995; Dweck & Legget, 1988) and will try to understand the reasons behind the behavior, such as the environment, instead of only relying on dispositional traits (Chiu et al., 1997). Since entity theorists believe traits are fixed, they are more

likely than incremental theorists to believe that there is a consistency in behavior and that an individual's traits will be apparent from this behavior (Gervey et al., 1999). Incremental theorists view behavior as less predictive and will consider other factors in predicting traits and future behaviors (Chiu et al., 1997).

It has been found that these assumptions of entity and incremental theorists hold true during the perceptions of both individual personality (Chiu et al., 1997; Erdley & Dweck, 1993; Gervey et al., 1999; Hong, Chiu, Dweck, & Sacks, 1997; Levy, Stroessner, & Dweck, 1998) and brand personality (Flaherty & Pappas, 2000; Yorkston, Nunes, and Matta, 2010). Flaherty and Pappas (2000) demonstrated that the influence of implicit theory does carry over to brands. They found that entity theorists tended to base their perception of personality in regards to brand extension using prior brand information (i.e., brand personality traits do not change), whereas incremental theorists were less likely to do so (i.e., brand personality traits are malleable). Yorkston et al. (2010) also found that implicit theory applies to perceptions of a brand. It was discovered that if a participant believed personality traits were malleable, they will be more likely to see the brand as more malleable whereas participants who believed traits were fixed are less likely to believe that the brand can be extended (Yorkston et al., 2010). As discussed previously, color that is worn or showcased is a behavior from which personality is inferred. Based on the discussion of implicit theory, entity theorists are more likely to believe that there is consistency in the color behavior (worn/displayed) of people and brands, which is indicative of an individual's or brand's personality traits. On the other hand, incremental theorists will believe that color behavior (worn/displayed) is less predictive of an individual's or brand's personality traits because they will look to other factors, such as goals, emotions or intentions (Yorkston et al., 2010), to account for their perception of the individual's or brand's personality.

By using implicit theory and the model of color and psychological functioning to explain the relationship between color and the perception of individual and brand personality traits and approach-avoidance behaviors, it is the researcher's hope to reveal a new way to view the connection. Therefore, the main research question that will be explored in this study is: How does color affect the perception of individual and brand personality traits and approach-avoidance behaviors when viewed from the perspective of implicit theories and the model of color and psychological functioning?

Statement of Problem

As stated previously, there are a multitude of studies, which have examined the relationship between color and perception of personality traits of both people and brands (Aaker, 1999; Abril et al., 2009; Elliot & Maier, 2007; Frank & Gilovich, 1988; Niesta Kayser et al., 2010; Labrecque & Milne, 2011). However, implicit theory has not been applied to this research question. It is important to utilize this theoretical framework when testing these relationships because there may be instances when consumers subconsciously use implicit theories when evaluating situations, people, and behavior. It is important for marketers to understand how consumers use implicit theory when evaluating a brand because so that they encompass both incremental and entity theorists in their marketing campaign.

Marketers and advertisers need to ensure that they can obtain a positive evaluation of brand personality through their color marketing campaign from both implicit and incremental theorists. These evaluations will lead to purchases made by the consumers so it is important to understand on a deeper, psychological level how consumers perceive color to infer individual and brand personality traits. If incremental and entity theorists differentially perceive individual and brand personality based on color (worn/displayed), then marketers and advertisers will need

to use color more thoughtfully when marketing to consumers. They will need to use more holistic strategies when targeting consumers so as to encompass both types of theorists. Marketers may also need to carefully consider the color they choose in their branding and advertising so as to convey the specific personality trait that they desire to invoke. Further, the findings from this study can reveal the specific personality traits that positively influence approach-avoidance behaviors including interactional and purchase intent of consumers, which can provide insight to marketers on specific personality traits that they may want to employ in their branding, advertising and marketing campaigns.

Purpose

The purpose of this research is to reveal the effect of color on the perception of individual and brand personality traits and approach-avoidance behaviors by applying the theoretical framework of implicit theories developed by Dweck et al. (1995) and the model of color and psychological functioning developed by Elliot et al. (2007). Specifically, based on support from the literature, this study will first examine the effect of specific colors (red and blue) on perceptions of specific individual and brand personality traits (extroversion and introversion). Second, based on the propositions of implicit theory, this study will examine whether the above effects of color on the perception of individual and brand personality traits is moderated by the perceiver's implicit theory (entity or incremental) of the perceiver. Third, based on the propositions of the model of color and psychological functioning, this study will examine how individual and brand personality perceptions based on color influence the approach-avoidance behaviors, namely, interactional intent and purchase intent respectively.

Significance of the Study

By exploring the current gap of empirical evidence regarding color and perception of personality from an implicit theory perspective, the results garnered from this study will provide those in advertising and marketing with a different way to understand the relationship between color and the perception of introverted/extroverted individual and brand personality traits. Past studies have found links between color and attractiveness (Roberts, Owen, & Havlicek, 2010), aggression (Frank & Gilovich, 1988), emotions and associations (Pantin-Sohier, 2009), personality (Lange & Rentfrow, 2007; Schaie & Heiss, 1964). However, these linkages have not been studied from the perspective of the perceiver's implicit theory.

From a managerial standpoint, the results of this study may uncover that some consumers (i.e., entity theorist consumers) infer more information than others (i.e., incremental theorist consumers) from the colors used in a marketing, advertising or branding campaign. Past studies have found that entity theorists infer more trait information than incremental theorists from a person's behavior and overall appearance (Hong et al., 1997). The results from this study may further support this notion and extend these findings to the realm of branding. Further, the influence of these personality/trait inferences on the consumers' purchase intent for brands could have major implications for advertising and branding as well. When marketing a product, advertisers may not be able to rely solely on color personality because while some consumers may be motivated to purchase a brand based on its color personality associations (i.e. entity theorists), some others may rely less on these personality associations in forming their inferences about the brand and hence may not have the motivation induced to purchase it (i.e. incremental theorists) based only on color. Therefore, marketers may want to create multi-faceted associations between color and their brand that go beyond linking color and personality. For

example, the color yellow is associated with the LiveStrong product line by Nike. By pairing the color yellow with a cause-related campaign, consumers can form different associations between the specific color and brand, i.e. color yellow reflective of a ‘powerful’ brand personality and color yellow reflective of the ‘fight cancer’ cause, which might resonate with entity and incremental theorists respectively. Also, results from this study may also uncover discrepancies among consumers and how they perceive both person and brand personality based on certain colors. For example, if it is found that red does indeed create a perception of extroversion compared to blue then those in the retail industry need to be aware of the perceptions evoked by the color in their advertising, display, branding, and product strategy, such that the colors they choose convey the brand personality/image they desire to express.

Definition of Terms

Implicit Theories: Schema structure differentiating between two types of beliefs regarding consistency of a trait and situations which are most likely to motivate change (Dweck & Leggett, 1988; Ross, 1989)

Entity Theorist: Those who believe an individual’s personality is made up of fixed traits (Dweck & Leggett, 1988)

Incremental Theorists: Those who believe an individual’s personality traits can be changed (Dweck & Leggett, 1988)

Brand: A name, symbol, or design used to identify a company or services and differentiate themselves from like companies and services (The American Marketing Association, 1960).

Brand Personality: Human characteristics which are associated with a brand (Aaker, 1999).

Approach/Avoidance Motivation: The direction of behavior either toward (approach) or away (avoidance) from a stimuli based on that stimuli being negative or positive (Elliot, 1999;2006)

Purchase Intent: “An individual’s conscious plan to make an effort to purchase a brand” (Spears & Singh, 2004, p.56)

Interactional Intent: The motivation behind any verbal or gestural approach towards another individual (Loftin, Odom, & Lantz, 2007).

CHAPTER II: LITERATURE REVIEW

This chapter first provides an overview of implicit theory and the model of color and psychological functioning in the theoretic framework. It also explains how the theoretical framework relates to color and the perception of personality traits. Key research supporting hypotheses development is presented in the final section of this chapter.

Theoretical Framework

Implicit Theory

Implicit theories are defined as schema structures differentiating between two types of beliefs regarding consistency of a trait and situations which are most likely to motivate change (Ross, 1989). In other words, there are two beliefs people hold when evaluating traits and situations regarding themselves and others. The first belief held by entity theorists is that personality traits are fixed and cannot be changed. The second belief held by incremental theorists is that personality traits can be changed based on their surroundings. These two beliefs create a basis for interpreting social information and making judgments from that information (Gervey et al., 1999).

Entity theorists. Entity theorists rely on dispositional information when making assumptions and use behaviors in a solitary situation to infer future behaviors in other situations (Dweck et al., 1995; Chiu et al., 1997). This means once they observe a behavior and make an evaluation based on that behavior, they will assume that the person will behave in the same manner in a different situation. Entity theorists have a stronger tie to performance goals and internal and constant characteristics compared to incremental theorists (Dweck et al., 1995). Entity theorists process information about a person in an evaluative manner (Hong et al., 1997) so they will heavily rely on the behaviors and overall appearance of a person.

Incremental theorists. Incremental theorists tend to see the world in a more malleable light (Anderson, 1995). They believe that needs, goals, and intentions are explanations of certain behaviors and will consider these when making perceptions about a person (Anderson, 1995). Incremental theorists want to acquire and develop traits, whereas entity theorists want to document their ability (Dweck & Legget, 1988). Incremental theorists judge their performance on whether or not they acquired new knowledge or ability and when their performance increases, inferences about increased ability follows (Butler, 2000). Entity theorists usually view normative information to be more telling for self-appraisal, whereas incremental theorists view temporal information to be more indicative (Butler, 2000). Incremental theorists will focus more on psychological traits before making a decision instead of focusing on specific traits (Gervey et al., 1999). For example, if a person is rude, incremental theorists will consider factors such as they are having a bad day instead of assuming they are just mean-spirited.

Contrasts between entity and incremental theorists. Previous research has found that those who are considered entity theorists are more likely to identify characteristics from personal information compared to those who are incremental theorists (Hong et al., 1997). Therefore, entity theorists make more dispositional insinuations compared to those thought to be incremental theorists (Chiu et al., 1997; Erdley & Dweck, 1993; Gervey et al., 1999; Hong, 1994; Hong et al., 1997; see Dweck et al., 1995 for review). Since entity theorists believe their personality is fixed, and pay more attention to analyzing it, they are stricter with their judgments (Erdley & Dweck, 1993). Incremental theorists tend to be more flexible when judging others and take into account positive traits when inferring about negative traits (Erdley & Dweck, 1993). It has also been found that entity theorist will focus more heavily on an individual's traits when assuming future behavior (Chiu et al., 1997; Erdley & Dweck, 1993; Hong, 1994; Hong et al.,

1997). Incremental theorists however do not believe that what a person does in one situation will be indicative of future situations (Chiu et al., 1997).

In a study done by Chiu et al., (1997) it was found that when participants took on an entity theory, they were more likely to make strong trait judgments and used these judgments when assuming future behavior compared to those who took on an incremental theory. Since entity theorists believe traits are fixed, they are more likely than incremental theorists to believe that there is a consistency in behavior and an individual's traits will be apparent from this behavior (Gervey et al., 1999). Incremental theorists view behavior as less predictive and consider other factors in predicting future behaviors (Chiu et al., 1997). Gervey et al. (1999) found that entity theorists will pay more attention to a person's interests, appearance, and personal style when analyzing their behavior and how likely they will adhere to a certain behavior. As a result, entity theorists are more likely to believe that there is a consistency in the color behavior (worn/displayed) of people and brands which is indicative of an individual's (or brands) personality traits. Incremental theorists will believe that color behavior (worn/displayed) is less predictive of an individual's or brand's personality traits because they will look at other factors such as emotion and intention. Entity theorists are more likely than incremental theorists to make extreme judgments, either negative or positive, from sparse social information (Levy et al., 1998). Therefore, they will draw more conclusions about a person or brand given limited information (such as color).

Entity and incremental theorists process information about themselves and others differently (Levy et al., 1998). It can be assumed that the inclination towards a theory also translates to judging others traits (Dweck, Hong, & Chiu, 1993; Erdley & Dweck, 1993). For example, entity theorists will judge other's traits from available behavioral information (Chiu et

al., 1997). The way entity theorists tend to use evaluative processes is similar to stereotyping (Levy et al., 1998). Entity theorists tended to agree more strongly with stereotypes and believe they described innate differences amongst social groups (Levy et al., 1998). They also made their judgments quicker than incremental theorists and saw less variance within groups (Levy et al., 1998). Levy et al. (1998) found that entity theorists were more prone than incremental to partake in social stereotyping. One way individuals are socially stereotyped is by the apparel they are wearing. As a result of the stereotyping process, it may be inferred that entity theorists will reach more extreme personality perceptions based on color (worn/displayed) than incremental theorists.

Implicit theories and branding. As stated before, implicit theories involve the perception of malleability concerning personality traits and the inferences made towards others personality traits as well (Dweck et al., 1995). It was assumed by Yorkston et al. (2010) that whether personality traits are considered fixed or malleable could also be applied to personality of a brand. Dweck et al. (1995) found that consumer's implicit beliefs about themselves extend to nonhuman objects with humanlike qualities, such as brands. That is why marketers strategize ways to encourage consumers to anthropomorphize brands, or think of them in human terms (Aggarwal & McGill, 2007; Fournier, 1998). In the context of brand extension research, Flaherty and Pappas (2000) found that a consumers' implicit personality influences their tendency to use past brand perceptions to form judgments of new extensions. Entity theorists' judgments of the new extension were affected by their previous perceptions of the parent brand (Flaherty & Pappas, 2000). Incremental theorists, however, only used past judgments to evaluate the new extension when the perceived fit was considered far; such as sodium-free orange juice by Pepsi (Flaherty & Pappas, 2000). These results confirm that entity theorists are more concerned with

additional factors-such as previous judgments, when making perceptions. In addition, Yorkston et al., (2010) found that those who were primed with incremental prompts were able to perceive a better fit between the new brand and the parent brand. This study suggests that those who believe brand traits are malleable, or incremental theorists, are more readily accepting of brand extensions (Yorkston et al., 2010). Mathur, Jain, and Maheswaran (2012) found that when given extension information, entity theorist's impressions remained constant whereas incremental theorists modified their parent brand impressions. Entity theorists tend to focus on the final outcome and take into account evaluative implications (Mathur et al., 2012). Incremental theorists, on the other hand, focus more on personality, on the effort, and fit to favorably update parent brand impressions (Mathur et al., 2012).

Model of Color and Psychological Functioning

Goldstein (1942) stated that every person has innate reactions to colors, which are a product of psychological functioning and experience which Elliot et al. (2007) studied in further detail in their 'Model of Color and Psychological Functioning'. There are multiple premises behind this model, the first being that colors carry specific meaning (Elliot et al., 2007). Different colors may mean different things for different people depending on their experiences and personal associations. The second postulate states that the meaning derived from colors are rooted in: learned associations and biological responses (Elliot et al., 2007). Learned associations are made from pairing between colors and objects encountered repeatedly over a lifetime (Elliot et al., 2007). For example, if you grew up with pink walls in your bedroom, you may associate the feelings of comfort with the color pink. The third premise is that the perception of color causes a process of evaluation (Elliot et al., 2007). Elliot and Covington (2001) define evaluative process as a basic procedure that denotes whether a stimulus is positive or negative. Based on the evaluative process, the fourth postulate is introduced. The fourth postulate states that a motivated

behavior is created from the evaluative process (Elliot et al., 2007). The motivated behavior may be interpreted as such: a color stimulus that evokes a positive association creates approach behaviors and a color stimulus that evokes negative associations creates avoidance responses (Elliot et al., 2007). Fifth, the psychological functioning evoked from colors is an automatic process and happens without the individual's awareness (Elliot et al., 2007). Finally, the last postulate states that the meanings behind colors are contextual and depend on the situation they are presented in (Elliot et al., 2007). For example, in a study done by Elliot et al. (2007), the color red was seen as a color of failure within the performance context. In another study done by Niesta Kayser et al. (2010), the color red was seen as a color of romance in a relational context. As stated previously, the premise behind the fourth postulate is applied in this study. This postulate entails that if the color stimulus is evaluated positively, approach behavior follows and if a color stimulus is evaluated negatively, avoidance behavior follows. These positive and negative evaluations are context-specific. In this study, the evaluative process is defined as the assessment of extroverted (positive) and introverted (negative) personality in response to the colors red and blue respectively. Based on the postulate, it is proposed that in a person/brand evaluation context, the evaluation of an extroverted personality will produce an approach motivation, whereas the evaluation of an introverted personality will produce an avoidance motivation. There is a gap in the literature regarding the connection between colors red and blue and approach-avoidance behaviors; however, Elliot and Thrash (2002) found a link between extroversion and approach behaviors.

Hypotheses Development

Color and Personality Traits

Color has long been associated with various aspects of shopping and consumption behavior (Kauppinen-Raisanen & Luomala, 2010). Associations have been made between color

and advertising (Chamblee and Sandler, 1992; Gorn, Chattopadhyay, Yi, & Dahl 1997; Greer and Lohtia, 1994; Huang, 1993; Kaufman-Scarborough, 2001; Kimle and Fiore, 1992; Kirmani, 1997; Lee and Barnes, 1990; Meyers-Levy and Peracchio, 1995), international branding (Grimes and Doole, 1998), cultural preferences (Madden, Hewett, & Roth, 2000), background color and product attitudes (Middlestadt, 1990), and color on websites (Gorn, Chattopadhyay, Sengupta, & Tripathi, 2004).

In a study conducted by Kimle and Fiore (1992), it was found that when participants were shown advertisements in a magazine, the ads that contained the most color were the focus of participant's attention. The relationship between color and international branding has also been studied (Grimes & Doole, 1998). In Grimes & Doole's (1998) study, it was found that color is a way in which people identify brands and color association made with brands are internationally evident (Grimes & Doole, 1998). Those from different cultures were able to associate certain colors with popular brands such as Marlboro and Guinness (Grimes & Doole, 1998). In a study concerning color and cultural preferences, Madden et al., (2000) found that the colors such as blue, green, and white were universally liked among different cultures and conveyed the same meanings throughout cultures. In all countries studied: Austria, Brazil, Canada, Colombia, Hong Kong, PRC, Taiwan, and the United States, blue, green, and white were associated with "peaceful", "gentle", and "calming" (Madden et al., 2000). The colors black and brown were associated with "sad" and "stale" among most countries and red was associated with "active," "hot," and "vibrant" (Madden et al., 2000). Middlestadt (1990) found that the background color behind a product had a significant effect on the attitude toward buying a product. Participants who were shown a pen against a blue background reported more strongly that buying the pen would result in a positive outcome compared to those shown the pen with a red background

(Middlestadt, 1990). In a study which tested the color of a computer screen and time perception, it was found that when the screen was blue compared to yellow, participants felt more relaxed and perceived time to pass quickly (Gorn et al., 2004). Despite the value of the above findings, there has yet to be research conducted to examine the differential effects of color on perception of personality traits among perceivers with different implicit theories (entity vs. incremental).

Color and individual personality. Color has been studied in context to personality and trait judgments. It was found that job applicants who wore darker colored suits were seen as more masculine and powerful (Jackson, 1983). Amhorst and Reed (1986) found that female participants rated women in light jackets more positively and more social compared to women in darker jackets. It was also reported that male participants rated models in dark jackets as more intelligent and powerful (Amhorst & Reed, 1986). Darker colored clothing was also found to portray a livelier and more active person compared to lighter colors which were associated with a calmer person (Osgood, Suci, & Tannenbaum, 1967; Schickinger, 1975). Roberts, Owen, and Havlicek (2010) found that when a person wearing red or black was presented to a participant, they were seen as more attractive. On the other end of the spectrum, those wearing white and yellow received more negative evaluations (Roberts et al., 2010). In a study done by Frank and Gilovich (1988), it was found that when athletes wore the color black, they were perceived to be more aggressive. Similarly, Ford and Drake (1978) discovered that participants who chose objects or clothing with darker colors were more aggressive compared to those who chose lighter colors. In a study conducted by Vrij, Pannell, and Ost (2005), it was found that in a court scenario those wearing dark clothing were more likely to be found guilty compared to those wearing light colored clothing.

The colors red and orange have been associated with excitement and arousal (Labrecque & Milne, 2011; Walters, Apter, & Svebak, 1982) as well as extroversion (Eysenck, 1981). The colors blue and green, on the other hand, have been found to be associated with calm personality traits such as secure and peaceful (Murray & Deabler, 1957; Schaie & Heiss, 1964; Sharpe, 1974). Radeloff (1991) discovered that participants who were considered extroverted feeling type preferred colors such as dusty pink, mauve, mid-bright red and rich purple. Those who reported being introverted feeling type preferred the same colors as extroverts along with colors such as emerald green and royal blue (Radloff, 1991). Crozier (1999) found that, in regards to hue and color rank, extroverts preferred bright colors and introverts prefer lighter colors. More specifically, Birren (1950) found that individuals who were considered extrovert favored the color red while those who were considered introverted favored the color blue.

Color and brand personality. Along with clothing, color can also affect the perception of brand personality. In a study conducted by Boudreux and Palmer (2007), it was found that burgundy, red-orange, and neutrals were viewed as successful, desirable, and expensive when paired with a brand of wine. Green and red-orange were associated with exciting and imaginative while the color pink was seen as inappropriate for the brand of wine (Boudreux & Palmer, 2007). Labrecque and Milner (2010) found that the perceived sophistication of a brand of wine was positively affected by the hues of black, purple, and pink. They also found that the wine product that was packaged in a low saturation, high value purple hue was seen as more sophisticated compared to the same package with a high saturation, low value red hue (Labrecque & Milner, 2010). The product package with a high saturation, low value red hue was seen as more rugged compared to the package in purple hue (Labrecque & Milner, 2010).

The color of a product or brand thus allows a company to communicate a certain image to their consumers by evoking emotions and associations (Pantin-Sohier, 2009). The relationship between coffee and its packaging was examined by Dichter (1964). It was found that participants associated the color brown with a strong flavored coffee, red with rich flavor, blue with smooth flavor, and yellow with mild flavor (Dichter, 1964). A similar study was done by Favre and November (1979) where participants were all given the same coffee in four different colored jars. The majority of participants thought the coffee in the brown jar was too strong and the coffee in the red jar had the strongest aroma (Favre & November, 1979). Pantin-Sohier (2009) found that participants thought coffee in a purple tin was of better quality and more expensive. It was also discovered that participants perceived a bottle of mineral water to be more natural when packaged in a blue bottle and sophisticated and exciting when packaged in the color red (Pantin-Sohier, 2009). Thus, these past studies show that brand personality can successfully be perceived from colors associated with a brand logo or package. In the past, studies have revealed a relationship between the colors red and blue and extroversion and introversion in regards to individual personality (Birren, 1950; Crozier, 1999; Eysenck, 1981; Radeloff, 1991). However, there is a gap in the literature concerning the relationship between the colors, red and blue, and extroversion and introversion in regards to brand personality. Therefore, the hypothesis below investigates whether these findings apply to brand personality:

Hypothesis 1: Color will have a significant main effect on perceptions of an individual's and brand's personality traits such that: an individual and brand logo wearing/displaying red will be perceived more extroverted in comparison to an individual and brand logo wearing/displaying blue, which will be perceived more introverted.

Color, personality perception, and implicit theory. In addition to examining the main effect of color on individual and brand personality perceptions, the second purpose of this study was to examine whether the implicit theory of the perceiver moderates this relationship. Based on previous research, it was found that entity theorists view traits as fixed and tend to only consider what is presented to them when making judgments compared to incremental theorists who view traits as malleable and are less likely to make judgments based on dispositional traits (Chiu et al., 1997; Dweck et al., 1995; Gervey et al., 1999). Chiu et al. (1997) demonstrated that entity theorists are more likely, compared to incremental theorists, to believe that a person's behavior is indicative of their personality. Further, the judgments of entity theorists are more extreme compared to incremental theorists and entity theorists were also found to be more likely to use social stereotyping when judging others (Levy et al., 1998).

Entity theorists may be more inclined to make stronger associations between color and personality traits, compared to incremental theorists, because the color (worn/showcased) is included in the portrayal of a person or brand presented to them and is indicative of individual or brand behavior. Incremental theorists, on the other hand, will believe that color behavior (worn/displayed) is less predictive of an individual's or brand's personality traits. They are more likely to look at the bigger picture and attribute other outside factors such as motivations, intentions, and emotions (Yorkston et al., 2010) when making judgments and will be more likely to link color (worn/displayed) to the social context. Hence, the following hypotheses are proposed:

Hypothesis 2a: The effect of color on perceptions of an individual's and brand's personality will be moderated by the perceiver's implicit theory

Hypothesis 2b: The colors red and blue (worn/displayed) will evoke greater perceptions of introversion and extroversion respectively in the evaluation of individual and brand personalities for entity theorists as compared to incremental theorists.

Color, Personality Perception, and Approach-Avoidance Behaviors

Hypotheses 1 and 2 examine the relationship between color and the perception of personality. According to the Model of Color and Psychological Functioning (Elliot et al., 2007), after this assessment a motivated behavior follows. It was found that when a color evokes a positive message or feeling, then approach responses would be evident (Elliot & Maier, 2007). In contrast, a color that evokes a negative message will produce avoidance behavior (Elliot & Maier, 2007). For example, people may be drawn to the color orange because it represents the sun and brightness. On the other hand, they may avoid the color red because of its association with stoplights and danger signs. This positive or negative evaluation of a color is dependent on context, such that in certain contexts (e.g., romantic relationships) the color red has positive associations and in others (e.g. cautionary contexts) the color red has negative associations. Similarly, if someone prefers Coca-Cola over Pepsi, then they may associate the color red with their favorite beverage and in turn be more attracted to the color red compared to blue in the packaging of cool beverages.

The environment with which the color is presented in also has an effect on how the meanings will be evaluated (Elliot & Maier, 2007; Elliot et al, 2007). For example, a color presented in an achievement context may be evaluated differently when presented in a relational context (Elliot & Maier, 2007). Elliot et al. (2007) found that the color red evokes the psychological feelings of failure. They believe this response is due to the use of red ink by teachers when evaluating a student's work. The learned response in this context is avoidance

since an individual has a learned negative reaction to the color. However, in a relational context, Elliot and Maier (2007) believe that the innate response from the color red will be derived from attraction rooted from mating partners. Therefore, Elliot and Maier (2007) assume that the color red will produce a non-conscious approach-motivated reaction in a relational context.

Elliot and Thrash (2002) found that approach behavior was linked to extroversion, positive emotions and led to facilitating behavior whereas avoidance behavior was linked to neuroticism, negative emotions and led to inhibiting behavior. It was also found that those who display approach behavior will prefer brands which reflect exciting personality traits (Aaker, Benet-Martinez, & Garolera, 2001) since they want to appear socially desirable (Swaminathan, Stilley, & Ahluwalia, 2008). The non-conscious approach-avoidance reaction occurs immediately after an evaluation of a color (Elliot et al., 2007). The evaluation being focused on in this study is between color and the perception of personality. It was found that people perceived as extroverted were seen as having higher social status compared to introverts-meaning that more people were willing to approach them and start a social relationship (Anderson, John, Keltner, & Kring, 2001). Extroverts have been found to be more socially present and initiate conversations compared to introverts (Murray, 1990). In regards to brand personality, Guido, Peluso, Provenzano, and Leo (2008) found that the purchase intention of the product Lavazza coffee was influenced by extroverted emotionality in the brand personality. Boudreax and Palmer (2007) also found a positive relationship between purchase intent and the brand personality construct of excitement. Participants reported a higher purchase intent when they interpreted the brand personality of a wine label as exciting compared to outdoorsy or tough.

Therefore, it is proposed that:

Hypothesis 3: Perceptions of individual personality will significantly influence interactional intent with the individual such that the more extroverted (introverted) the perception of the person the higher (lower) the interactional intent.

Hypothesis 4: Perceptions of brand personality will significantly influence purchase intent for the brand such that the more extroverted (introverted) the perception of the brand the higher (lower) the purchase intent.

The research model with the hypothesized relationships is presented below:

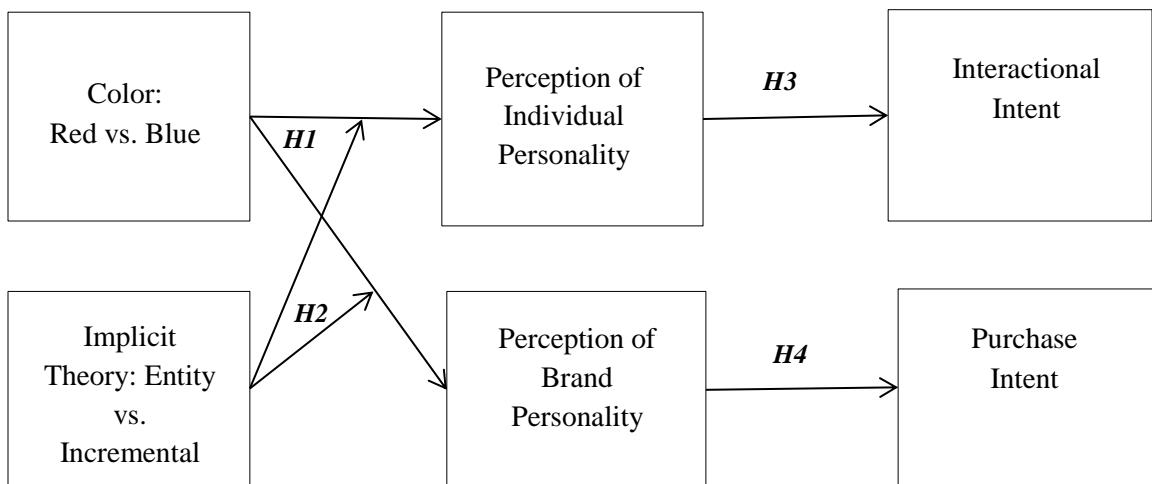


Figure 1. Research Model

CHAPTER III: METHODOLOGY

A self-administered Internet experiment was used to test the hypotheses proposed in the previous chapter. Color (red vs. blue), and implicit theories (incremental vs. entity) are the independent variables that were manipulated or measured in this experiment. The perception of person and brand personality traits (introversion and extroversion) and purchase (brand) and interactional (person) intent served as the dependent variables. Quantitative data collected through the Internet experiment was analyzed using SPSS statistical software to test the proposed hypotheses. The following sections describe the stimuli, experimental procedure and the instruments used to manipulate and measure the variables. The final section of this chapter describes the data analysis used.

Research Design

Participants and Procedure

This study employed a 2 (Color: Red vs. Blue) x 2 (Implicit Theory: Entity vs. Incremental) x 2 (Stimulus: Brand, Individual) mixed-factorial design with color and entity theory as the between-subjects factors and stimulus as the within-subjects factor. The color manipulation was narrowed to two colors, red and blue since these two colors have been studied in the context of personality perception and offer empirical support for the relationship between red and extroversion and blue and introversion (Gorn et al., 1997; Madden et al., 2000; Middlestadt, 1990).

Data was collected using Qualtrics, a web-based survey tool. A convenience sample of male and female undergraduate students at a Southern University participated in the study. The students aged 19 years or older were recruited from the College of Human Sciences from classes in Consumer and Design Sciences, Human Development and Family Studies, and Hotel and

Restaurant Management. Following the receipt of IRB approval (Protocol # 13-047 EX 1302, see Appendix A) for conducting the study, professors in selected classes were contacted for permission to recruit students. Study announcements were made in the selected classes and students were offered extra credit for participation in the respective classes. Following the announcement, students received a recruitment email which contained a link to the online Qualtrics survey. The email included the purpose of the study, amount of time the study required, assurance of anonymity, voluntary participation, contact information of the researcher, and the link to the web address for the study. The email was sent out to 318 students, both male and female. The identity of the participants was protected by giving participants a link for the questionnaire followed by a separate link which allowed them to enter their email address in order to receive extra credit. This ensured that the responses from the questionnaire were associated with their email.

Stimuli and Measures

Individual and brand personality scenarios. Two separate scenarios were created to allow participants to imagine a situation in which they would need to make a person or brand personality judgment (see Appendix B). The individual and brand personality scenarios were used to manipulate the color variable and to test hypotheses 1 and 2. Each color condition contained both scenarios. In the red color condition, the brand personality scenario was followed by a brand with a red logo. The individual personality scenario, which came next, was followed by a woman wearing a red top. In the blue color condition, the brand personality scenario was followed by a brand with a blue logo and the individual personality scenario was followed by a woman wearing a blue top. The young woman and brand logo images were chosen based on a pretest discussed next. The individual personality scenario was as follows:

Michelle is a 20 year old student. She has decided to spend an afternoon at a park near her apartment. Imagine you are at the park and you see Michelle. What are your perceptions of her?

The brand personality scenario was as follows:

There is talk of a new international apparel brand opening its store in the local mall. Imagine that you are in a mall and you see their logo in an empty store façade with the words “Coming Soon....”. What are your perceptions of the brand?

Pretest for stimulus selection. A pretest was conducted to select the stimuli to be used for manipulating color in the above scenarios. The purpose of the pretest was to select individual (young woman) and brand logo images that represented a neutral personality with respect to introversion-extroversion. A secondary purpose was to ensure that participants had no previous familiarity with the selected brand logo. Six neutral images were shown representing each stimulus type, individual and brand (see Appendix C). In regards to the individual stimuli, neutral images represented a facial expression which did not portray extreme emotion. In regards to the brand logo images, neutral logos represented words or type design which did not convey any specific association with a certain type of product or personality. Participants were then asked to evaluate the six individual and brand logo images based on whether they were introverted or extroverted. To do this, participants were given 5 items from Goldberg's (1992) Big Five Bipolar Inventory to evaluate the photographic stimuli of young women. The items including “Introverted-Extroverted”, “Unsociable-Sociable”, “Unassertive-Assertive”, “Timid-Bold”, and “Shy-Unrestrained” were rated on a 9-point semantic differential scale. Brand logo images were also evaluated based on whether they were introverted or extroverted. To do this, participants were given 4 items from Goldberg's (1992) Big Five Bipolar Inventory. Items including “Inactive-Active”, “Unenergetic-Energetic”, “Inhibited-Spontaneous”, and “Unadventurous-Adventurous” were rated on a 9-point semantic differential scale. A shortened

scenario accompanied each image. The individual stimuli had the following scenario” “Imagine you are at the park and you see the woman above. What are your perceptions of her?”. The brand stimuli had the following scenario: “Imagine that you are in the mall and you see the above logo in an empty store façade with words ‘Coming Soon...’. What are your perceptions of the brand?”.

For the brand logo images, familiarity was also measured using a single item 7-point bipolar scale (Unfamiliar-Familiar) to ensure that only unfamiliar brand logos were chosen. Lastly, an item asking the level of agreement with the following statement was asked: “This logo could belong to an international apparel ready-to-wear brand” using a 5-point bipolar scale (Disagree-Agree). This item was used to measure the appropriateness of the logo chosen (see Appendix C for Pretest Questionnaire).

Implicit theory measure. In this study, the implicit theory of the participants was measured. Participants were given the three-item Implicit Person Theory Measure (Dweck et al., 1995) to measure their implicit theory (see Table 1). The items on the questionnaire were adapted by Erdley, Loomis, Cain and Dumas-Hines (1997), originally developed by Dweck et al. (1995). These items were measured using a 6-point Likert scale with 1(very strongly disagree) and 6 (very strongly agree). An example of the items used is “You have a certain personality, and it is something that you can’t do much about.” The three items were averaged for each participant to create an implicit score. Based on studies that previously used this scale (Chiu et al., 1997; Dweck et al., 1995; Erdley et al., 1997; Hong, Chiu, Dweck, Lin, & Wan, 1999), participants whose implicit score was 3.0 or below were considered incremental theorists; whereas those whose score was 4.0 or above were considered entity theorists. Participants with mean scores between 3 and 4 were eliminated from the analysis. The measure has been proven to

show high internal reliability with alphas ranging from .73 to .90 (Chiu et al., 1997) and test-retest reliability of .82 (Dweck et al., 1995). Dweck et al. (1995b) tested the validity of these items by using converging methods. Researchers manipulated the implicit theories of participants and compared the results to when the implicit theories were measured naturally (Dweck et al., 1995b). It was found that regardless of the dependent measures used, participants who were assigned an implicit theory garnered the same result as participants who hold those theories according to the Implicit Person Theory Measure (Dweck et al., 1995b).

Perception of individual personality measure. Perception of introverted/extroverted individual personality was measured using 5 items from the Big Five Bipolar Inventory (Goldberg, 1992). The original scale includes 10 items but a sub-set of 5 items was used for this study that demonstrated face validity for the individual personality scenario. This sub-set consisted of 5 bipolar items (see Table 1). Examples of items include “introverted-extroverted” and “talkative-untalkative”. These items were rated on a 9-point semantic differential scale. Goldberg (1992) found that this subset had good reliability with a coefficient alpha of .92

Perception of brand personality measure. Perception of introverted/extroverted brand personality will be measured using four items from Goldberg's (1992) Big Five Bipolar Inventory (see Table 1). The subset of items were taken from the same extroversion scale as the individual personality measure, but were different items that demonstrated face validity for the brand personality scenario. Examples of items include “Active-Inactive” and “Adventurous-Unadventurous. Items were measured on a 9-point semantic differential scale. These items were found to have a good internal reliability with coefficient alpha of .92 (Goldberg, 1992).

Purchase intention measure. Purchase intention was measured using a three item scale (see Table 1) developed by Dodds, Monroe, and Grewal (1991). An example of the items is “I

would consider buying products from this brand.” The items were rated on a 7-point Likert scale. Dodds et al. (1991) found internal consistency to be high based on using Cronbach’s coefficient *alphas* of .97.

Interactional intent measure. Interactional intent was measured using a scale originally developed by Siperstein, Parker, Norins Bardon, and Widaman (2007) and adapted by Brown et al. (2011). The scale consisted of 12 items but for the purposes of this study, only three items that demonstrated face validity with the scenario presented (see Table 1 for adapted items) were used. An example of an item used is “I would say hello to Michelle.” Items were rated on a 4-point scale (1 = no, 2 = probably not, 3 = probably, 4 = yes). Reliability for this scale was found by Siperstein et al. (2007) with a Cronbach’s *alpha* of 0.93.

Demographic items. The final section of the questionnaire contained the demographic items, which included the following: age, gender, ethnicity, marital status, academic standing, and major area of study.

Table 1

Variables and Measures

Variable	Measure Name	Items	Source
Implicit Theory	Implicit Person Theory Measure	You have a certain personality, and it is something that you can't do much about Your personality is something about you that you can't change very much Either you have a good personality or you don't and there is really very little you can do about it	Erdley, Loomis, Cain, Dumas-Hines, & Dweck (1997); originally developed by Dweck, Chiu, & Hong, 1995
Perception of Personality (Individual)	Big Five Bipolar Inventory	Extroverted-Introverted Sociable-Unsociable Assertive-Unassertive Bold-Timid	Goldberg, 1992

		Unrestrained-Shy	
Perception of Personality (Brand)	Big Five Bipolar Inventory	Active-Inactive Energetic-Unenergetic Spontaneous-Inhibited Adventurous-Unadventurous	Goldberg, 1992
Purchase Intent	Purchase Intent Scale	I would consider buying a product from this brand I will purchase a product from this brand There is a strong likelihood that I will buy a product from this brand	Dodds, Monroe, & Grewal, 1991
Interactional Intent	Interactional Intent Scale	"would you..." Say hello to a Michelle? Talk to Michelle when you have free time Sit next to Michelle on a park bench?	Brown, Ouellette- Kuntz, Lysaght, & Burge (2011); Originally developed by Siperstein, Parker, Norins Bardon, and Widaman (2007)

Data Collection

Data collection took place over a 3 week period. Upon receiving the email, participants clicked on the Qualtrics link which took them to the Internet experiment. The Qualtrics experiment was programmed such that participants were randomly assigned to either the red or the blue color condition. The first page of the questionnaire was the IRB-approved information letter explaining the procedure including risks, benefits, and compensation (included in Appendix A). In the second part of the questionnaire (see Appendix B), participants were given the two scenarios – individual and brand personality scenarios. Participants saw the brand scenario first followed by the individual scenario. The brand personality scenario and image were followed by the brand personality judgment scale and the purchase intent scale. The

individual personality scenario and image were followed by the individual personality judgment scale and interactional intent scale. In the third part of the questionnaire, participants completed the Implicit Person Theory Measure to determine whether they represented an incremental or entity theorist. The final section of this questionnaire included demographic questions.

Data Analysis

All data was analyzed using SPSS software. The independent variables being manipulated/measured in this study were: color, red vs. blue; and implicit theory, incremental vs. entity. The dependent variables measured in this study were: perception of personality traits, person and brand, as well as behavioral intent, interactional and purchase. The hypotheses were tested as follows:

Table 2

Hypotheses Testing

Hypothesis	Variable	Categorical/Interval	Analysis
1	Color (IV)	Categorical	One-way MANOVA
	Perception of introverted/extroverted individual personality (DV)	Continous	
	Perception of introverted/extroverted brand personality (DV)	Continous	
2	Color (IV)	Categorical	Two-way MANOVA
	Implicit Theory (IV)	Categorical	
	Perceptions of introverted/extroverted individual personality (DV)	Continous	
	Perceptions of introverted/extroverted brand personality (DV)	Continuous	
3	Perceptions of introverted/extroverted individual personality (IV)	Continuous	Simple Regression
	Interactional Intent (DV)	Continous	

4	Perceptions of introverted/extroverted brand personality (IV)	Continuous	Simple Regression
	Purchase Intent (DV)	Continuous	

CHAPTER IV. RESULTS

The objective of this study was to examine the relationship between color and the perceptions of individual and brand personality traits and approach-avoidance behaviors by applying Implicit Theory (Dweck et al., 1995) and the Model of Color and Psychological Functioning (Elliot et al., 2007) in the theoretical framework. The data collection process in this study included a pretest followed by the main study (Internet experiment). The main purpose of the pretest was to select individual (young woman) and brand logo images that represented a neutral personality with respect to introversion-extroversion. The results of both the pretest and the main study were analyzed using SPSS software. The preliminary analysis process included coding the color condition (red and blue), cleaning the data, conducting descriptive analysis of the sample, checking the reliability of the all variable measures, calculating the means and creating composite scores for each measure, and grouping the data into the two-level implicit theory categories (entity and incremental theorists). Following the preliminary data analysis steps, hypothesis testing analysis was conducted.

Pretest

A total of 79 out of 131 students completed the pretest questionnaire yielding a response rate of 60%. Before analysis, the data was cleaned by excluding 11 respondents who had left over 20% of the items unanswered. The pretest provided researchers with unbiased images for the individual and brand stimuli in main study.

Pretest Results

Participants were asked to rate their perception of introverted-extroverted personality for both individual stimuli and brand logo stimuli. The mean scores for personality perceptions of the individual stimuli are included in Table 3. The image with the mean score closest to 5.0 (on a

9-point scale) was chosen as most neutral. Individual stimulus 1 demonstrated a mean score of 5.1. Since the score of 5.1 was considered most neutral with respect to introverted-extroverted personality compared to the others, individual stimulus 1 was chosen for the main study.

Table 3

Mean Scores for Introverted-Extroverted Personality Ratings of Individual Stimuli

Individual Stimuli*	Introvert/ Extrovert	Sociable/ Unsociable	Unassertive / Assertive	Timid / Bold	Shy/ Unrestrained	Total Mean	SD
1. 	5.11	5.8	4.84	4.57	4.61	5.01	1.3
2. 	6.31	6.21	6.8	6.51	6.21	6.41	1.4

Table 3.1 (continued)

3.



5.6	5.8	5.61	5.81	5.5	5.7	1.4
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4.



5.0	5.41	5.51	4.81	4.94	5.13	1.6
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5.



4.8	5.11	4.6	4.91	4.41	4.81	1.8
-----	------	-----	------	------	-------------	-----

6.



3.94	4.54	4.3	4.0	3.9	4.14	1.8
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*images copied from websites Shutterstock.com and istockphoto.com

In regards to the brand logo stimuli (see Table 4), number 6 was chosen with a mean score of 4.82. This score of 4.82 represented the most neutral brand logo compared to the other stimuli, with respect to introverted-extroverted brand personality. Along with mean scores, familiarity was also measured for the brand logo stimuli and the scores were taken into consideration when choosing the final stimulus. Lower scores for this familiarity measure indicated low familiarity, which was desirable in the chosen stimulus. Brand logo stimulus 6 had a familiarity score of 1.21 (on a 7-point scale). The familiarity score and the total mean score indicated that brand logo stimulus 6 was the best choice. Lastly, participants were asked to rate whether the logo represented an apparel brand. Brand logo stimuli 6 had a score of 3.02 (on a 5-point scale), which was acceptable.

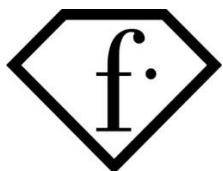
Table 4

Mean Scores for Brand Familiarity, Brand Personality, and Brand Type

Brand Logo Stimuli*	Inactive/ Active	Unenergetic / Energetic	Inhibited/ Spontaneous	Unadventurous /Adventurous	Total Mean	SD
1.						
		5.84	5.52	5.02	5.23	5.4
2.						
		5.01	4.62	4.5	4.81	4.74
3.						

2NE1	6.11	5.93	5.9	5.72	5.92	2.1
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4.



	4.61	4.7	4.71	4.54	4.64	2.0
--	------	-----	------	------	-------------	------------

5.



	6.5	6.3	5.9	6.33	6.3	2.3
--	-----	-----	-----	------	------------	------------

6.



	4.91	5.03	4.8	4.6	4.82	2.2
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*images copied from websites Shutterstock.com and istockphoto.com

Main Study

Sample Characteristics

A total of 227 out of 318 students recruited completed the main study Internet questionnaire, yielding a response rate of 71%. Before analysis 15 respondents were excluded who had left over 20% of the items unanswered. Frequencies in SPSS were used in analyzing the demographic characteristics from the sample. The sample consisted of 191 (90%) females and 21 males (10%). Majority of participants were Non-Hispanic White (81.7%) followed by Non-Hispanic Black (5.2%), Asian/Pacific Islander (3.3%), American Indian/ Alaska Native (2.8%), and Hispanic (2.3%). Participants ranged in age from 18 to 44 with a mean age of 20.6 years. The marital status of respondents was as follows: 97.7% were single and never married, 1.4% were married, and .5% were divorced. As far as academic standing, majority of participants were sophomores (29.6%), followed by juniors (26.8%), freshman (24.4%), and finally, seniors (18.8%).

Reliability Analysis

The reliabilities of the following scales were calculated using Cronbach's *alpha* coefficient: Perception of Brand Personality, Purchase Intent, Perception of Individual Personality, Interactional Intent, and perceiver's Implicit Theory. All scales revealed satisfactory reliabilities with Cronbach's alpha coefficient over .70 (see Table 5). Composite scores were then calculated for each of these measured variables. The items for these measures were summed and averaged for each participant to create the composite scores.

Table 5

Reliability Analysis

Measure	Cronbach's Alpha	N of Items	N
Perception of Brand Personality	.913	4	212
Purchase Intent	.896	3	212
Perception of Individual Personality	.892	5	212
Interactional Intent	.715	3	212
Implicit Theory	.824	3	212

Testing for Gender-Differences

Due to the uneven sample size in regards to gender, a MANOVA was performed to test the effect of gender on the measured variables. The MANOVA with gender as a fixed factor and the four dependent variables (Perception of Brand Personality, Purchase Intent, Perception of Individual Personality, and Interactional Intent), revealed a significant effect of gender in the overall multivariate test [Wilk's $\lambda = .941$, $F(4, 207) = 3.25$, $p = .013$]. Therefore, gender was used as blocking variable in subsequent analyses.

Grouping Participants based on Implicit Theory

Participants were grouped into incremental and entity theorists based on the mean score of the implicit theory measure. As done by past studies (Chiu et al., 1997; Dweck et al., 1995; Erdley et al., 1997; Hong et al., 1999) groups were decided by first generating mean scores for the three items. Respondents who had a mean of 3.0 and below were considered incremental theorists ($N=82$); whereas respondents who had a mean of 4.0 and above were considered entity theorists ($N=67$). Sixty-three respondents who fell in between 3.0 and 4.0 were deleted from the data set since they did not have a strong indication of either incremental or entity theory. Below is the distribution of means of the composite score from the three implicit items (Figure 2).

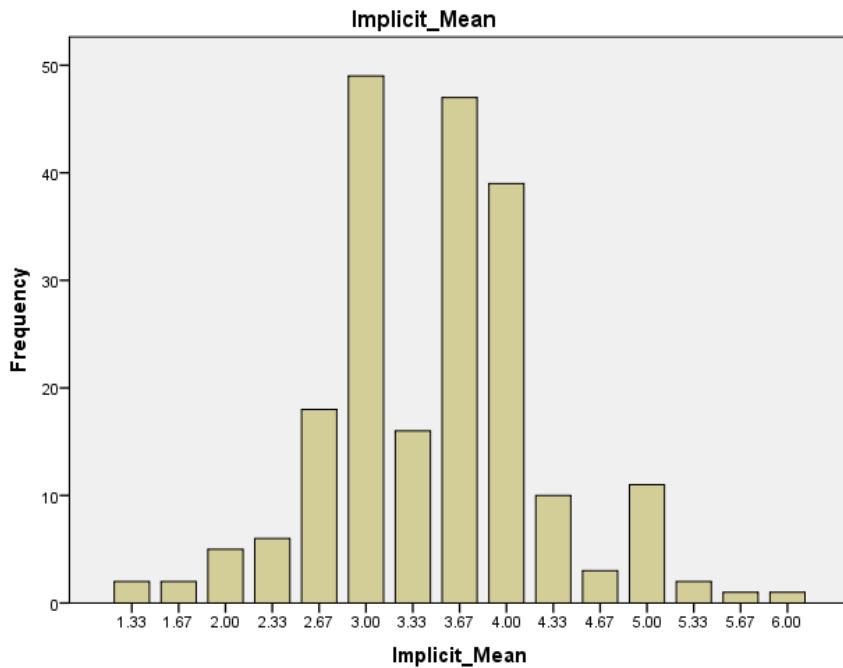


Figure 2. Distribution of Implicit Means

Hypothesis Testing

Hypothesis testing analysis in this study used post-hoc blocking to account for the gender differences. Post-hoc blocking is the act of dividing participants into standardized blocks after data collection and this process removes the error variability connected with the blocking variable (Keppel & Wickens, 2004), in this case gender.

Color and personality traits. In Hypothesis 1, it was proposed that color will have a significant main effect on perceptions of an individual's and brand's personality traits such that: an individual and brand logo wearing/displaying red will be perceived more extroverted in comparison to an individual and brand logo wearing/displaying blue, which will be perceived more introverted. In order to test this hypothesis, a one-way multivariate analysis of variance (MANOVA) was conducted with composite scores of perception of brand personality and perception of individual personality as dependent variables; color as a fixed factor; and gender as

a post-hoc blocking factor (factors that were added after data has been collected to separate out error variability). The analysis (see Appendix D) revealed that the main effect of color on the perceptions of individual and brand personality traits is not statistically significant [Wilks $\lambda = .994$, $F(2, 144) = .462$, $p = .631$, partial $\eta^2 = .006$]. Results showed a slightly higher mean (higher scores indicate extroversion and lower scores indicate introversion on the bipolar introversion-extroversion scale) for the color red in both individual and brand personality, as compared to blue, but the effect was not strong enough to be significant. Therefore, Hypothesis 1 was not supported.

Color, personality perception, and implicit theory. In Hypothesis 2a, it was expected that the effect of color on perceptions of an individual's and brand's personality will be moderated by the perceiver's implicit theory. Specifically in Hypothesis 2b it was proposed that the colors red and blue (worn/displayed) will evoke greater perceptions of introversion and extroversion respectively in the evaluation of individual and brand personalities for entity theorists as compared to incremental theorists. In order to test Hypothesis 2a, a two-way multivariate analysis of variance (MANOVA) was conducted with composite scores perception of brand personality and perception of individual personality as dependent variables; color and the perceiver's implicit theory as fixed factors; and gender as post-hoc blocking factors. This was followed by univariate ANOVAs with the two dependent variables individually. The results from the MANOVA (see Appendix E) revealed a marginally significant interaction effect of color and the perceiver's implicit theory on the two dependent variables [Wilks $\lambda = .959$, $F(2, 140) = 2.96$, $p = .055$, partial $\eta^2 = .041$]. There were no other significant main or interaction effects in the model (see Appendix E). Therefore, Hypothesis 2a was partially supported. Univariate ANOVAs revealed that there was a marginally significant interaction effect of the perceiver's

implicit theory and color on perceptions of brand personality [$F(1, 141) = 3.70, p = .057, \eta^2 = .026$]. However, contrary to expectations, as compared to entity theorists, incremental theorists perceived brand logos in red to be more extroverted in personality and brand logos in blue to be more introverted in personality (see Table 6 and Figure 3). The interaction effect of color and the perceiver's implicit theory on perceptions of introverted/extroverted individual personality was non-significant, although the means were in the hypothesized direction (see Table 6). Therefore, Hypothesis 2b was not supported. These results reveal that the perceiver's implicit theory was a significant moderator of the effect of color on perceptions of brand personality but not individual personality. However, with respect to brand personality, the specific interaction effects were not in the hypothesized direction.

Table 6.

Pairwise Comparisons for the Interaction Effect of Implicit Theory and Color

		Implicit Theory				Mean Difference	Sig. ^a		
		Entity		Incremental					
		M	SE	M	SE				
Brand Personality	Red	4.55	0.453	5.75	0.487	1.206	0.072		
	Blue	5.37	0.566	4.58	0.567	0.795	0.323		
Individual Personality	Red	5.42	0.363	4.46	0.390	0.962	0.073		
	Blue	4.42	0.453	4.65	0.454	0.231	0.720		

a. Adjustment for multiple comparisons: Bonferroni

Note: Higher means represent extroversion and lower means represent introversion

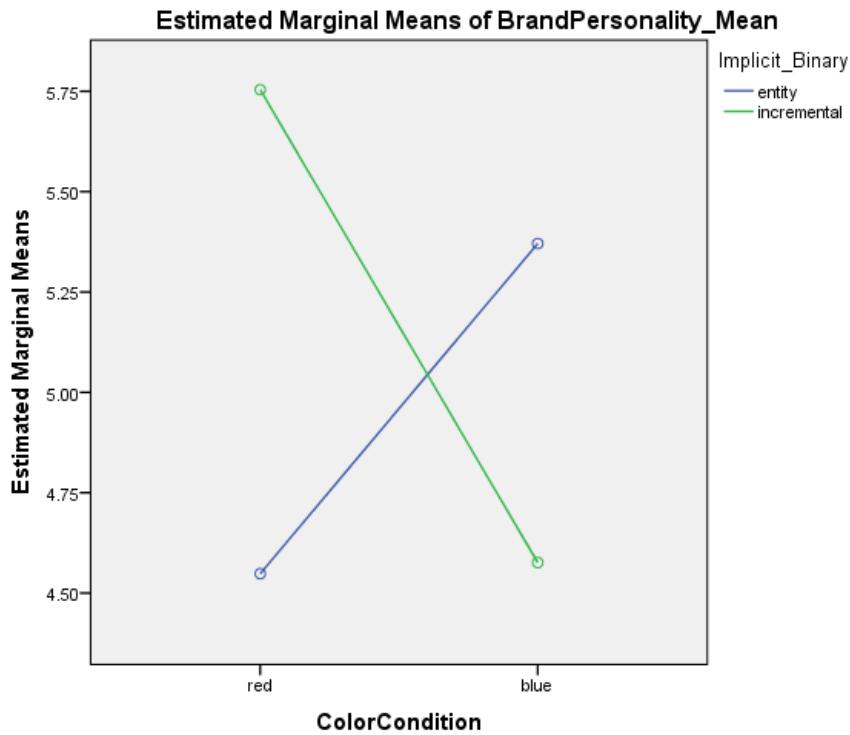


Figure 3. Interaction effect of color and the perceiver's implicit theory on brand personality

Perception of personality and approach-avoidance behaviors. In Hypothesis 3, it was expected that perceptions of individual personality will significantly influence interactional intent with the individual such that the more extroverted (introverted) the perception of the person the higher (lower) the interactional intent. Hypothesis 3 was tested with a simple regression. Results indicated that perceptions of individual personality significantly predicted interactional intent, [$\beta = .175$, $t(147) = 2.16$, $p = .032$]. Hence, Hypothesis 3 was supported. The positive beta value indicates that the more extroverted a person is perceived to be (higher scores on the bipolar introversion-extroversion measure), the higher the interactional intent and the more introverted a person is perceived (lower scores on the bipolar introversion-extroversion measure), the lower the interactional intent [$R^2 = 3.1\%$, $F(1,147) = 4.67$, $p = .032$].

In Hypothesis 4, it was expected that perceptions of brand personality will significantly influence purchase intent for the brand such that the more extroverted (introverted) the perception of the brand the higher (lower) the purchase intent. A simple regression was used to test this hypothesis. Results indicated a strong positive relationship between brand personality and purchase intent, [$\beta = 0.572$, $t(147) = 8.46$, $p < .001$]. The positive beta value indicates that the more extroverted the perception of the brand, the higher the purchase intent, and the more introverted the perception of the brand, the lower the purchase intent [$R^2 = 32.7\%$, $F(1, 147) = 71.577$, $p < .001$]. Hence, Hypothesis 4 was supported. Table 7 summarizes the results of hypothesis testing.

Table 7.

Hypotheses Testing Results

Hypotheses		
H1	Color will have a significant main effect on perceptions of an individual's and brand's personality traits such that: an individual and brand logo wearing/displaying red will be perceived more extroverted in comparison to an individual and brand logo wearing/displaying blue, which will be perceived more introverted	N/S ^a
H2a	The effect of color on perceptions of an individual's and brand's personality will be moderated by the perceiver's implicit theory the perception of introversion or extroversion in individual and brand personalities in response to blue and red colors (worn/displayed) respectively will be greater for entity theorist than incremental theorists	P/S ^b
H2b	The perception of introversion or extroversion in individual and brand personalities in response to blue and red colors (worn/displayed) respectively will be greater for entity theorist than incremental theorists	N/S ^a
H3	Perceptions of an individual personality will significantly influence interactional intent with the individual such that the more extroverted (introverted) the perception of the person the higher (lower) the interactional intent	S ^c
H4	Perceptions of brand personality will significantly influence purchase intent for the brand such that the more extroverted (introverted) the perception of the brand the higher (lower) the purchase intent	S ^c

a. N/S-Not Supported

b. P/S-Partially Supported

c. S-Supported

CHAPTER V. DISCUSSION AND IMPLICATIONS

The purpose of this study was three-fold: (1) to examine how color affects the perception of personality of people and brands and (2) how this effect is moderated by the implicit theory of the perceiver and (3) to examine how personality perceptions affect approach-avoidance behaviors towards individuals and brands. This chapter will first discuss the results pertaining to color and perception of personality. Next, results regarding implicit theory, color, and personality perceptions will be discussed. This is followed by a discussion of results pertaining to perception of personality and approach-avoidance behaviors. The theoretical and managerial implications of the findings, limitations of the study, and suggestions for future research are discussed following the above.

Discussion and Conclusions

Color and perception of personality. The first purpose of this study was to examine how color affects the perception of personality traits of people and brands. Past research has found significant relationships between color and perception of personality. For example, athletes who wore black during a sporting event were seen as more aggressive (Frank & Gilovich, 1988). In regards to brand personality, a relationship was found between the colors red and excitement perceived from a label (Pantin-Sohier, 2009). For the present study, Hypothesis 1 proposed that color would have a significant effect on perceptions of an individual's and brand's personality traits such that individual and brand logos in red would be perceived more extroverted, whereas individuals and brand logos in blue would be perceived more introverted. However, the results from this study did not support this hypothesis.. It has been previously found that the color red has been associated with extroversion (Eysenck, 1981) and blue has been linked to calm and introverted personality traits (Murray & Deabler, 1957; Schaie & Heiss, 1964; Sharpe, 1974). In regards to brand personality, Crozier (1999) found that extroversion was linked

to bright colors. More specifically, Birren (1950) stated that there was a link between extroversion and a preference for the color red, while the color blue was linked to introversion. While past researchers were able to demonstrate these findings, the results from this study failed to do so. The Model of Color and Psychological Functioning posits that the perception of color is derived from either learned associations or a biological response (Elliot et al., 2007). Therefore, a possible reason why this hypothesis was not supported could be the learned associations participants had with the colors red and blue. In the particular school from which the student sample was drawn from, red was associated with rival school's colors, whereas blue was associated with the home school colors. This association with school colors could have affected the participant's response to the stimuli. The salience of color and school spirit in the participants' minds may have undermined the effects of color on personality perceptions. Also, the rejection of Hypothesis 1 could mean stronger implications for the interaction effect of implicit theory. As we saw in the partial support of Hypothesis 2a, the main effect of color on the perception of an individual's and brand's personality was moderated by the perceiver's implicit theory. These results in conjunction with the non-significance of Hypothesis 1, strengthen the importance of considering the perceiver's implicit theory in examining the effect of color on judgments of personality.

Color, implicit theory and personality perception. The second purpose of this study was to examine how the implicit theory of the perceiver moderates the relationship between color and the perception of personality traits of people and brands. Hypothesis 2 proposed that (a) the effect of color on perception of an individual's and brand's personality will be moderated by the perceiver's implicit theory and (b) this effect will be greater for entity theorists than incremental theorists. The results from this study revealed a partial support for Hypothesis 2a

and rejected Hypothesis 2b. It was revealed that there was a significant interaction effect of the perceiver's implicit theory and color on perceptions of introverted/extroverted brand personality. However, this interaction effect was contrary to the expectations of this study: incremental theorists perceived brand logos in red to be more extroverted in personality and brand logos in blue to be more introverted in personality, compared to entity theorists. Also, contrary to expectation, the personality perceptions (based on color) of incremental theorists were more extreme than those of entity theorists.

According to implicit theory, entity theorists believe that personality traits are fixed and cannot be changed. Incremental theorists believe that personality traits can be changed based on their surroundings (Gervey et al., 1999). Past research has shown that implicit beliefs about others and themselves tend to extend to brands (Dweck, et al., 1995a,b; Yorkston et al., 2010). Therefore, it was hypothesized that brand personality perceptions (based on color) of entity theorists would be more extreme than incremental theorists. However, the results from this study show that this was not the case. Flaherty and Pappas (2000), Yorkston et al. (2010), and Marthur et al. (2012) found that entity theorists are more concerned with additional factors such as previous judgments, when making perceptions about a brand. Therefore, a reason for the unexpected brand personality results could be that entity theorists based their brand personality perception on the brand logo's general appearance (rather than color) so that they could tap into previous schemas of similar brand logos. The brand logo's general appearance (devoid of color) revealed a fairly neutral brand personality as per pretest results, and this could have influenced entity theorists to a larger extent. Also, Mathur et al. (2012) reported that incremental theorists tend to focus more on personality and fit when making evaluations of a brand. This could be a possible explanation as to why incremental theorists reported a more extroverted personality for

the color red and a more introverted personality for the color blue than entity theorists. Since incremental theorists are more concerned about fit and brand personality, as well as social context compared to entity theorists, they may have (to a larger extent) taken into account the fit of the colors red and blue with extroverted and introverted personalities in making their evaluations.

It was also revealed that there was a non-significant effect of the perceiver's implicit theory and color on perceptions of individual personality. A reason for the lack of significance could be individual differences in regards to color preference. Since only blue and red were used in this study, that could have affected the results. For example, if a participant preferred the color blue compared to red they would have rated the picture of Michelle in blue higher. Also, the interaction of the perceiver's implicit theory may have not been significant within the individual scenario because participants may not have focused on color, and instead focused more on confounding factors such as hair color, attractiveness, and facial expression when making personality perceptions about Michelle. As stated earlier, past studies have found linkage between extroversion and the color red and introversion and the color blue. In a study done by Robinson (1975), participants were shown colors on projected slides and were given glasses with white lenses to ensure that uniform color perception (Robinson, 1975). In another study, Radeloff (1991) studied color preferences for apparel fabrics. Participants saw the same fabrics as to avoid any color discrepancies. Participants in the present study used their own computer screens to view the colors so the colors may have been different based on the screen used.

Perception of personality and approach-avoidance behaviors. The third and final purpose of this study was to examine how personality perceptions affect approach-avoidance behaviors towards individuals and brands. Hypothesis 3, which predicted that the perceptions of

individual personality will significantly predict interactional intent with the individual such that the more extroverted (introverted) the perception of the person the higher (lower) the interactional intent, received support. This finding contributes to past research which has found that approach behavior was linked to extroversion, positive emotions and led to facilitating behavior whereas avoidance behavior was linked to inhibiting behavior (Elliot & Thrash, 2002). The result from Hypothesis 3 indicates that the perception of extroversion or introversion does in fact elicit an approach or avoidance response towards an individual respectively.

Hypothesis 4 proposed that the perceptions of brand personality will significantly predict purchase intent for the brand such that the more extroverted (introverted) the perception of the brand the higher (lower) the purchase intent. Results show that as brand personality increased, purchase intent increased as was found in past research by Labrecque and Milne (2011). Also, Aaker et al. (2001) found that those who display approach behavior will prefer brands which reflect exciting personality traits. These findings also support past research, which has found that purchase intention of products is influenced by extroverted emotionality and excitement (Boudreax & Palmer, 2007; Guido et al., 2008). Both Hypotheses 3 and 4 show that the perception of extroversion or introversion in people and brands successfully predicts an approach or avoidance response respectively.

Theoretical Implications

There are multiple theoretical implications which can be drawn from this study. First, this study provided results which filled the gap in color and perception of personality literature by examining the moderating role of implicit theory of the perceiver. Results revealed that the relationship between color and brand personality was moderated by the perceiver's implicit theory. In combination with the fact that color did not have a main effect on personality

perceptions, this finding reveals the significance of considering the perceiver's implicit theory in the color-personality relationship. Although multiple studies have examined the relationship between color and perception of personality (Frank & Gilovich, 1988; Niesta Kayser et al., 2010; Eysenck, 1981; French & Alexander, 1972; Lange & Rentfrow, 2007) this study is the first to look at this relationship from an implicit theory perspective. Therefore, this study provides empirical evidence to better understand how the implicit theory of the perceiver affects brand personality perceptions based on color showcased.

The marginally significant interaction effect of the perceiver's implicit theory and color on perceptions of introverted/extroverted brand personality was opposite to what was hypothesized, which shows that there may be more to uncover about implicit theory in context to branding. Specifically, further research is needed to determine how entity and incremental theorists perceive the 'fit' of a color with brand personality and how these impact their personality evaluations of a brand based on color. Finally, by examining how personality perceptions affect approach-avoidance behaviors towards individuals and brands, the results from this study provide further support for The Model of Color and Psychological Functioning. The perception of extroversion was found to successfully predict both interactional intent and purchase intent. Specifically, these results provide additional empirical support for the fourth postulate of The Model of Color and Psychological Functioning. The fourth postulate posits that a motivated behavior (approach-avoidance behavior) is created from an evaluative process (Elliot et al., 2007). The motivated behaviors measured in this study were interactional intent and purchase intent.

Managerial Implications

The results from this study provide important implications for retailers, advertisers, and marketers. There was a significant interaction effect of the perceiver's implicit theory and color on perceptions of introverted/extroverted brand personality. Incremental theorists perceived greater extroverted/introverted personality from the brand logo color as compared to entity theorists. This implicates that marketers and advertisers may need to consider the implicit theory of the consumer when trying to use color to sell a brand based on personality associations. While marketers may not be able to focus their campaigns towards one specific implicit theory, they do need to be aware of the differences between two types of theorists and create encompassing marketing campaigns in order to gain favorable brand personality evaluations from both. Since incremental and entity theorists perceive color and brand personality differently, marketers will need to use color more thoughtfully when targeting both entity and incremental theorists using color. Marketers also need to carefully consider whether the color they choose in their branding and advertising: 1) does indeed convey the specific personality trait that they desire to invoke; and 2) fits with their existing brand personality.

In regards to the influence of personality perception on approach-avoidance behaviors, the results from this study show that the more extroverted a person or brand is perceived, the higher the approach behavior. These results reveal that the type of personality perceived of an individual or a brand has a significant effect on a consumer's interactional and purchase intent. Therefore these results provide insight to marketers on specific personality traits (extroversion) that they may want to employ in their branding, advertising, and marketing campaigns to encourage approach behavior (purchase intent) towards their brand.

Limitations and Recommendations for Future Research

There are multiple limitations within this study. First, the sample used in this study consisted of undergraduate students from the same Southern University within the College of Human Sciences. Students from this particular University may have preferred the color blue compared to the color red since blue is one of their school colors and red is the color of a rival school. These preferences could have affected the results of Hypothesis 1 since participants may have rated the stimuli in blue as more extroverted solely because they prefer the color blue. It would behoove future researchers to use samples from different areas creating a general representation of consumers. By using a sample from different areas and universities, the preference of certain colors due to school spirit will be discounted as long as there is an equal representation of different schools with different school colors. Further, future researchers may want to test the variables in the study across different cultures. The sample used for this study was mainly Caucasian and therefore lacked variability. Color associations differ by culture and testing for these differences may strengthen the implications and allow a broader generalization of results.

Second, the majority of participants were women, which limits the variability of results. In this sample there were 191 females and only 21 males. Future research would benefit from having an equal number of men and women in their sample. Having an equal sample in terms of gender would help reduce random error in the data reducing the possibility of a type II error (concluding an effect does not exist when it does). Also, future researchers can further the implications of this study by comparing genders since this research can only be generalized to the female population. In conjunction with this, the stimulus chosen for the individual color manipulation was that of a female, which could have affected the responses in regards to

interactional intent. Therefore, future research may want to pretest the effect of gender of the stimuli on the male and female participants.

Next, the use of only two colors is a limitation as well since the effect of color was limited. By using multiple colors, stimulus sampling could have been achieved and color specific preferences and effects could have been minimized. Also, the innate preference for red or blue was not measured and controlled for, which can be a possible limitation. If a participant did not like the color red or blue that may have affected their responses in regards to purchase and interactional intent. Therefore, future research may want to include more colors, as well as measure and control for the innate preference of the colors chosen.

Another important limitation was the sample size. With a larger sample size there could have been more respondents in each implicit theory group, which could have yielded more power in hypothesis testing, thus reducing the chances of making a type II error (concluding that an effect does not exist when it does). In hypothesis 2, the interaction effect of color and the perceiver's implicit theory on perceptions of introverted/extroverted individual personality, the interaction effect was approaching significance; a larger sample size may have strengthened these effects.

The effect of own personality may have also been a limitation in this study. For example, if a participant is extroverted then they may be more likely to approach an extroverted person. Also, extroverted participants may be more likely to prefer the color red, while introverted participants may be more likely to prefer the color blue. Future research needs to measure own personality and hypothesize its effects in relation to implicit theory. Lastly, the scale used to measure individual personality may have been a limitation. The items on the right side of the scale (untalkative, unassertive, timid, and shy) can have a negative connotation attached to them.

Introverted is also amongst these items in the questionnaire so participants may have seen this item as negative as well and in turn altered their responses.

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APPENDIX A

IRB Approval Letter and Information Letter [Protocol #13-047 EX 1302]

Dear Ms. Kmieck,

Your protocol entitled " The Effect of Color on Perception of Individual and Brand Personality Traits and Approach-Avoidance Behaviors: An Implicit Theory Perspective " has received approval as "Exempt" under federal regulation 45 CFR 46.101(b)(2).

Official notice:

This e-mail serves as official notice that your protocol has been approved. A formal approval letter will not be sent unless you notify us that you need one. By accepting this approval, you also accept your responsibilities associated with this approval. Details of your responsibilities are attached. Please print and retain.

Information Letter:

Please add the following IRB approval information to your information letter:

"The Auburn University Institutional Review Board has approved this document for use from February 10, 2013 to February 9, 2016. Protocol #13-047 EX 1302 "

You must use that updated document to consent participants. Once you have made the update you may begin your study. *Please forward a copy of the electronic letter with live links so that we may print a final copy for our files.*

Expiration – Approval for three year period:

*****Note that the new policy for Exempt approvals is a *three year approval*.** Therefore, your protocol **will expire on February 9, 2016.** Put that date on your calendar now. About three weeks before that time you will need to submit a renewal request.

When you have completed all research activities, have no plans to collect additional data and have destroyed all identifiable information as approved by the IRB, please notify this office via e-mail. A final report is no longer required.

If you have any questions, please let us know.

Best wishes for success with your research!

Susan

Susan Anderson, M.S., CIM

IRB Administrator

Office of Research Compliance

115 Ramsay Hall (basement)

Auburn University, AL 36849

(334) 844-5966

hsubjec@auburn.edu

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS IRB APPROVAL INFORMATION WITH CURRENT DATES HAS BEEN ADDED TO THIS DOCUMENT.)

INFORMATION LETTER
For a research study entitled
"Person and Brand Perception Study"

You are invited to participate in a research study to examine perception of color on apparel and brands as part of my thesis. The study is being conducted by Clarissa Kmiec, graduate student, under the direction of Dr. Chattaraman, Associate Professor at Auburn University Department of Consumer and Design Sciences. You were selected as a possible participant because you are an Auburn student and are age 19 or older.

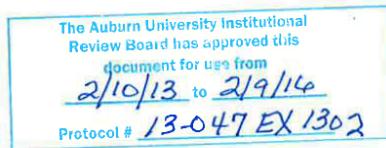
What will be involved if you participate? Your participation is completely voluntary. If you decide to participate in this research study, you will be asked to complete a questionnaire. Your total time commitment will be approximately 10 minutes.

Are there any risks or discomforts? We assure you that the participation in this study would put you in no physical or psychological risks other than the minimal inconvenience of completing the survey. Personal information collected through this survey will be kept confidential and used only for the purpose of this study. No identifiers will be used to link your responses to your identity.

Are there any benefits to yourself or others? The general population may benefit from this study as marketing, advertising, and product companies will be provided with a new way to examine the relationship between color and consumers.

Will you receive compensation for participating? To thank you for your time you will be given extra credit.

If you change your mind about participating, you can withdraw at any time during the study by closing your browser window. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Once you've submitted anonymous data, it cannot be withdrawn since it will be unidentifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University, the Department of Consumer and Design Sciences.



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Any data obtained in connection with this study will remain anonymous. We will protect your privacy and the data you provide by not collecting IP or email addresses from research participants. Information collected through your participation may be published in a professional journal, and/or presented at a professional meeting. If so, none of your identifiable information will be included

If you have questions about this study, please contact Clarissa Kmiecik at clk0018@auburn.edu or Dr. Chattaraman at vchattaraman@auburn.edu.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334) 844-5966 or e-mail at hsubjec@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.

Clarissa Kmieck

Investigator _____ Date _____

Dr. Veena Chattaraman

Co-Investigator _____ **Date** _____



The Auburn University Institutional Review Board has approved this document for use from _____ to _____. Protocol #_____

LINK TO SURVEY

APPENDIX B

Main Study Questionnaire

(Red Condition)

Directions: Please read the scenario below and answer the questions that follow

There is talk of a new international apparel brand opening its store in the local mall. Imagine that you are in a mall and you see their logo in an empty store facade with words 'Coming Soon....' What are your perceptions of the brand? (The brand logo is pictured below)



Directions: Please select the bubble that best describes your perception of the brand.

Inactive	<input type="radio"/>	Active							
Unenergetic	<input type="radio"/>	Energetic							
Inhibited	<input type="radio"/>	Spontaneous							
Unadventurous	<input type="radio"/>	Adventurous							

Directions: Please select the bubble that best describes how you would act towards the brand

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I would consider buying products from this brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will purchase products from this brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a strong likelihood that I will buy products from this brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(page break)

Directions: Please read the scenario below and answer the questions that follow.

APPENDIX B (continued)

Michelle is a 20 year old student. She has decided to spend an afternoon at a park near her apartment. Imagine you are at the park and you see Michelle. What are your perceptions of her? (Michelle is pictured below)



Directions: Please select the bubble that best describes your perceptions of Michelle

Introverted	<input type="radio"/>	Extroverted							
Untalkative	<input type="radio"/>	Talkative							
Unassertive	<input type="radio"/>	Assertive							
Timid	<input type="radio"/>	Bold							
Shy	<input type="radio"/>	Unrestrained							

Please select the bubble that best describes how you would act towards Michelle

	No	Probably Not	Probably Yes	Yes
Say hello to Michelle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talk to Michelle when you have free time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sit next to Michelle on a park bench	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(Blue Condition)

Directions: Please read the scenario below and answer the questions that follow

APPENDIX B (continued)

There is talk of a new international apparel brand opening its store in the local mall. Imagine that you are in a mall and you see their logo in an empty store facade with words 'Coming Soon....' What are your perceptions of the brand? (The brand logo is pictured below)



Directions: Please select the bubble that best describes your perception of the brand.

Inactive	<input type="radio"/>	Active							
Unenergetic	<input type="radio"/>	Energetic							
Inhibited	<input type="radio"/>	Spontaneous							
Unadventurous	<input type="radio"/>	Adventurous							

Directions: Please select the bubble that best describes how you would act towards the brand

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I would consider buying products from this brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will purchase products from this brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a strong likelihood that I will buy products from this brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(page break)

Directions: Please read the scenario below and answer the questions that follow.

Michelle is a 20 year old student. She has decided to spend an afternoon at a park near her apartment. Imagine you are at the park and you see Michelle. What are your perceptions of her? (Michelle is pictured below)

APPENDIX B (continued)



Directions: Please select the bubble that best describes your perceptions of Michelle

Introverted	<input type="radio"/>	Extroverted							
Untalkative	<input type="radio"/>	Talkative							
Unassertive	<input type="radio"/>	Assertive							
Timid	<input type="radio"/>	Bold							
Shy	<input type="radio"/>	Unrestrained							

Please select the bubble that best describes how you would act towards Michelle

	No	Probably not	Probably Yes	Yes
Say hello to Michelle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talk to Michelle when you have free time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sit next to Michelle on a park bench	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(page break)

APPENDIX B (continued)

Directions: Please select the bubble that best describes your agreement with the following statements

	Very Strongly Disagree	Strongly Disagree	Disagree	Agree	Strongly Agree	Very Strongly Agree
You have a certain personality, and it is something that you can't do much about	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your personality is something about you that you can't change very much	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Either you have a good personality or you don't and there is very little you can do about it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please select the bubble that best describes you.

Introverted	<input type="radio"/>	Extroverted						
Untalkative	<input type="radio"/>	Talkative						
Unassertive	<input type="radio"/>	Assertive						
Timid	<input type="radio"/>	Bold						
Shy	<input type="radio"/>	Unrestrained						

(page break)

Demographics

This is the last part of the questionnaire. You're almost done!

Below are a few questions regarding demographic information. Please select the bubble that best matches your response in each statement.

Age:

Gender:

- Male
- Female

APPENDIX B (continued)

Ethnicity (please select one):

- Non-Hispanic White
- Non-Hispanic Black
- Hispanic
- Asian/Pacific Islander
- American Indian/Alaska Native
- Other

Marital Status (please select one):

- Single and Never Married
- Married
- Separated
- Divorced
- Widowed

Academic Standing (please select one):

- Freshman
- Sophomore
- Junior
- Senior
- Graduate Student

Major Area of Study

APPENDIX C

Pretest Questionnaire



Imagine you are at the park and you see the woman above. What are your perceptions of her?

Please select the bubble which best describes your perceptions of the woman pictured

Introverted	<input type="radio"/>	Extroverted							
Unsociable	<input type="radio"/>	Sociable							
Unassertive	<input type="radio"/>	Assertive							
Timid	<input type="radio"/>	Bold							
Shy	<input type="radio"/>	Unrestrained							



Imagine you are at the park and you see the woman above. What are your perceptions of her?

Please select the bubble which best describes your perceptions of the woman pictured

Introverted	<input type="radio"/>	Extroverted							
Unsociable	<input type="radio"/>	Sociable							
Unassertive	<input type="radio"/>	Assertive							
Timid	<input type="radio"/>	Bold							
Shy	<input type="radio"/>	Unrestrained							

APPENDIX C (continued)



Imagine you are at the park and you see the woman above. What are your perceptions of her?

Please select the bubble which best describes your perceptions of the woman pictured

Introverted	<input type="radio"/>	Extroverted							
Unsociable	<input type="radio"/>	Sociable							
Unassertive	<input type="radio"/>	Assertive							
Timid	<input type="radio"/>	Bold							
Shy	<input type="radio"/>	Unrestrained							



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APPENDIX C (continued)

Imagine you are at the park and you see the woman above. What are your perceptions of her?

Please select the bubble which best describes your perceptions of the woman pictured

Introverted	<input type="radio"/>	Extroverted							
Unsociable	<input type="radio"/>	Sociable							
Unassertive	<input type="radio"/>	Assertive							
Timid	<input type="radio"/>	Bold							
Shy	<input type="radio"/>	Unrestrained							



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Imagine you are at the park and you see the woman above. What are your perceptions of her?

Please select the bubble which best describes your perceptions of the woman pictured

Introverted	<input type="radio"/>	Extroverted							
Unsociable	<input type="radio"/>	Sociable							
Unassertive	<input type="radio"/>	Assertive							
Timid	<input type="radio"/>	Bold							
Shy	<input type="radio"/>	Unrestrained							

APPENDIX C (continued)



Imagine you are at the park and you see the woman above. What are your perceptions of her?

Please select the bubble which best describes your perceptions of the woman pictured

Introverted	<input type="radio"/>	Extroverted							
Unsociable	<input type="radio"/>	Sociable							
Unassertive	<input type="radio"/>	Assertive							
Timid	<input type="radio"/>	Bold							
Shy	<input type="radio"/>	Unrestrained							

APPENDIX C (continued)



Imagine you are in a mall and you see the logo above in an empty store facade with the words "Coming Soon..." What are your perceptions of this brand?

Please select the bubble that best describes your perceptions of the brand pictured

Inactive	<input type="radio"/>	Active							
Unenergetic	<input type="radio"/>	Energetic							
Inhibited	<input type="radio"/>	Spontaneous							
Unadventurous	<input type="radio"/>	Adventurous							

Please select the bubble which best represents your familiarity with the brand

Unfamiliar	<input type="radio"/>	Familiar						
------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	----------

Please select the bubble which best describes your level of agreement with the following statement:

"This logo could belong to an international apparel ready-to-wear brand"

Disagree	<input type="radio"/>	Agree					
----------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-------

APPENDIX C (continued)



Imagine you are in a mall and you see the logo above in an empty store facade with the words "Coming Soon..." What are your perceptions of this brand?

Please select the bubble that best describes your perceptions of the brand pictured

Inactive	<input type="radio"/>	Active							
Unenergetic	<input type="radio"/>	Energetic							
Inhibited	<input type="radio"/>	Spontaneous							
Unadventurous	<input type="radio"/>	Adventurous							

Please select the bubble which best represents your familiarity with the brand

Unfamiliar	<input type="radio"/>	Familiar						
------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	----------

Please select the bubble which best describes your level of agreement with the following statement:

"This logo could belong to an international apparel ready-to-wear brand"

Disagree	<input type="radio"/>	Agree				
----------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-------

APPENDIX C (continued)



Imagine you are in a mall and you see the logo above in an empty store facade with the words "Coming Soon..." What are your perceptions of this brand?

Please select the bubble that best describes your perceptions of the brand pictured

Inactive	<input type="radio"/>	Active							
Unenergetic	<input type="radio"/>	Energetic							
Inhibited	<input type="radio"/>	Spontaneous							
Unadventurous	<input type="radio"/>	Adventurous							

Please select the bubble which best represents your familiarity with the brand

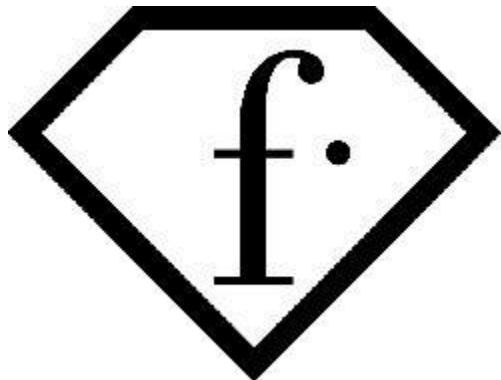
Unfamiliar	<input type="radio"/>	Familiar						
------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	----------

Please select the bubble which best describes your level of agreement with the following statement:

"This logo could belong to an international apparel ready-to-wear brand"

Disagree	<input type="radio"/>	Agree				
----------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-------

APPENDIX C (continued)



Imagine you are in a mall and you see the logo above in an empty store facade with the words "Coming Soon..." What are your perceptions of this brand?

Please select the bubble that best describes your perceptions of the brand pictured

Inactive	<input type="radio"/>	Active							
Unenergetic	<input type="radio"/>	Energetic							
Inhibited	<input type="radio"/>	Spontaneous							
Unadventurous	<input type="radio"/>	Adventurous							

Please select the bubble which best represents your familiarity with the brand

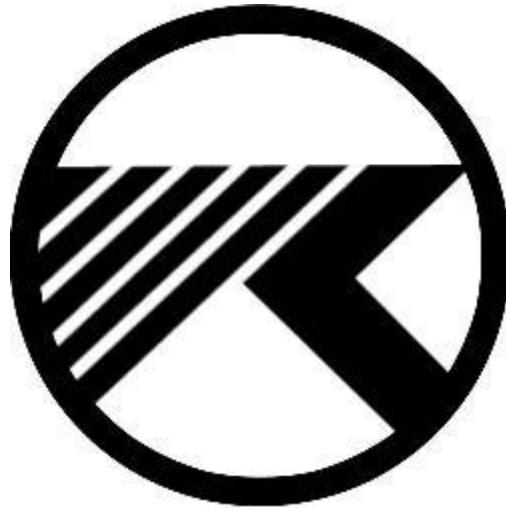
Unfamiliar	<input type="radio"/>	Familiar						
------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	----------

Please select the bubble which best describes your level of agreement with the following statement:

"This logo could belong to an international apparel ready-to-wear brand"

Disagree	<input type="radio"/>	Agree					
----------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-------

APPENDIX C (continued)



Imagine you are in a mall and you see the logo above in an empty store facade with the words "Coming Soon..." What are your perceptions of this brand?

Please select the bubble that best describes your perceptions of the brand pictured

Inactive	<input type="radio"/>	Active							
Unenergetic	<input type="radio"/>	Energetic							
Inhibited	<input type="radio"/>	Spontaneous							
Unadventurous	<input type="radio"/>	Adventurous							

Please select the bubble which best represents your familiarity with the brand

Unfamiliar	<input type="radio"/>	Familiar						
------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	----------

Please select the bubble which best describes your level of agreement with the following statement:

"This logo could belong to an international apparel ready-to-wear brand"

Disagree	<input type="radio"/>	Agree					
----------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-------

APPENDIX C (continued)



Imagine you are in a mall and you see the logo above in an empty store facade with the words "Coming Soon..." What are your perceptions of this brand?

Please select the bubble that best describes your perceptions of the brand pictured

Inactive	<input type="radio"/>	Active							
Unenergetic	<input type="radio"/>	Energetic							
Inhibited	<input type="radio"/>	Spontaneous							
Unadventurous	<input type="radio"/>	Adventurous							

Please select the bubble which best represents your familiarity with the brand

Unfamiliar	<input type="radio"/>	Familiar						
------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	----------

Please select the bubble which best describes your level of agreement with the following statement:

"This logo could belong to an international apparel ready-to-wear brand"

Disagree	<input type="radio"/>	Agree					
----------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-------

(page break)

APPENDIX C (continued)

Please select the bubble that best describes your agreement with the following statements

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
You have a certain personality, and it is something that you can't do much about	<input type="radio"/>					
Your personality is something about you that you can't change very much	<input type="radio"/>					
Either you have a good personality or you don't and there is very little you can do about it	<input type="radio"/>					

APPENDIX D

Table of Results of MANOVA for Hypothesis 1

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	0.858	436.757	2	144	0	0.858
	Wilks'						
	Lambda	0.142	436.757	2	144	0	0.858
	Hotelling's						
	Trace	6.066	436.757	2	144	0	0.858
ColorCondition	Roy's Largest Root	6.066	436.757	2	144	0	0.858
	Pillai's Trace	0.006	0.462	2	144	0.631	0.006
	Wilks'						
	Lambda	0.994	0.462	2	144	0.631	0.006
	Hotelling's						
Gender	Trace	0.006	0.462	2	144	0.631	0.006
	Roy's Largest Root	0.006	0.462	2	144	0.631	0.006
	Pillai's Trace	0.038	2.849	2	144	0.061	0.038
	Wilks'						
	Lambda	0.962	2.849	2	144	0.061	0.038
ColorCondition * Gender	Hotelling's						
	Trace	0.04	2.849	2	144	0.061	0.038
	Roy's Largest Root	0.04	2.849	2	144	0.061	0.038
	Pillai's Trace	0.003	0.195	2	144	0.823	0.003
	Wilks'						
	Lambda	0.997	0.195	2	144	0.823	0.003
	Hotelling's						
	Trace	0.003	0.195	2	144	0.823	0.003
	Roy's Largest Root	0.003	0.195	2	144	0.823	0.003

APPENDIX E

Table of Results of MANOVA for Hypothesis 2

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	0.86	428.449	2	140	0	0.86
	Wilks'	0.14	428.449	2	140	0	0.86
	Lambda	6.121	428.449	2	140	0	0.86
	Hotelling's						
	Trace	6.121	428.449	2	140	0	0.86
ColorCondition	Roy's						
	Largest Root	6.121	428.449	2	140	0	0.86
	Pillai's Trace	0.007	0.504	2	140	0.605	0.007
	Wilks'	0.993	0.504	2	140	0.605	0.007
	Lambda	0.007	0.504	2	140	0.605	0.007
Gender	Hotelling's						
	Trace	0.007	0.504	2	140	0.605	0.007
	Roy's						
	Largest Root	0.007	0.504	2	140	0.605	0.007
	Pillai's Trace	0.034	2.429	2	140	0.092	0.034
Implicit_Binary	Wilks'	0.966	2.429	2	140	0.092	0.034
	Lambda	0.035	2.429	2	140	0.092	0.034
	Hotelling's						
	Trace	0.035	2.429	2	140	0.092	0.034
	Roy's						
ColorCondition * Gender	Largest Root	0.035	2.429	2	140	0.092	0.034
	Pillai's Trace	0.007	0.473	2	140	0.624	0.007
	Wilks'	0.993	0.473	2	140	0.624	0.007
	Lambda	0.007	0.473	2	140	0.624	0.007
	Hotelling's						
ColorCondition * Implicit_Binary	Trace	0.007	0.473	2	140	0.624	0.007
	Roy's						
	Largest Root	0.007	0.473	2	140	0.624	0.007
	Pillai's Trace	0.002	0.134	2	140	0.875	0.002
	Wilks'	0.998	0.134	2	140	0.875	0.002
ColorCondition * Gender	Lambda	0.002	0.134	2	140	0.875	0.002
	Hotelling's						
	Trace	0.002	0.134	2	140	0.875	0.002
	Roy's						
	Largest Root	0.002	0.134	2	140	0.875	0.002
ColorCondition * Implicit_Binary	Pillai's Trace	0.041	2.956	2	140	0.055	0.041
	Wilks'	0.959	2.956	2	140	0.055	0.041
	Lambda	0.042	2.956	2	140	0.055	0.041
ColorCondition * Implicit_Binary	Hotelling's						

	Trace						
	Roy's						
	Largest Root	0.042	2.956	2	140	0.055	0.041
	Pillai's Trace	0.001	0.084	2	140	0.92	0.001
	Wilks'						
	Lambda	0.999	0.084	2	140	0.92	0.001
Gender *	Hotelling's						
Implicit_Binary	Trace	0.001	0.084	2	140	0.92	0.001
	Roy's						
	Largest Root	0.001	0.084	2	140	0.92	0.001
	Pillai's Trace	0.027	1.966	2	140	0.144	0.027
	Wilks'						
ColorCondition *	Lambda	0.973	1.966	2	140	0.144	0.027
Gender *	Hotelling's						
Implicit_Binary	Trace	0.028	1.966	2	140	0.144	0.027
	Roy's						
	Largest Root	0.028	1.966	2	140	0.144	0.027