Brand Personality: Consumer's Perceptions of Color Used in Brand Logos

A Thesis
Presented to
The Faculty of the Graduate School
At the University of Missouri

In Partial Fulfillment<br>Of the Requirements for the Degree<br>Master of Science

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MAY 2011

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## DEDICATION

I would like to dedicate this to my parents, John and Vickie Ridgway. Your love and support throughout the past two years has been overwhelming. You have been my strength, inspiration, and encouragement whenever I have needed it and for this I cannot thank you enough.

I would also like to dedicate this to my sister, Jen Ridgway, for her words of wisdom and continual excitement about my endeavors.

And to my fellow graduate student who have been my support system throughout this journey. You are some of the most amazing people I have ever met and I feel extremely blessed to have you in my life.

## ACKNOWLEDGEMENTS

A special thanks to all of the teachers and mentors that have helped guide me throughout the years. I would like to acknowledge all of the members of my thesis committee for without them this would not be possible.

To Dr. Myers, thank you for your hard work and dedication over these past several months. I sincerely appreciate all the time and effort you have dedicated to me and my academic success.

To Dr. Boorady, thank you for always being there for me as a mentor and for your constant encouragement throughout the past six years, it has meant the world to me. Also, thank you for helping me realize my passion for product development.

To Dr. Hoard, thank you for opening my mind and spirit to the world of color. I could not have done this without your knowledge, guidance, and patience. I can truly say I will never look at the world again in the same way because of you.

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#### Abstract

The goal of this study was to (1) determine if consumers will apply conventional color associations to hues when they are used in a brand's logo, (2) examine whether color affects consumers' perceptions of a brand's personality, and (3) to investigate whether consumers view a color as more appropriate for a logo when brand personality and color associations are congruent. The theories of anthropomorphism and associative learning theory are used to explain how consumers relate to brand, perceive brand personality, and form associations. Participants were recruited for the study through the technique of snowball sampling via Facebook. The survey was distributed over the course of two weeks and 184 usable responses were collected. Results indicate that all hypotheses are supported. Therefore, color in logos plays a significant role in the way in which the consumers perceive a brand's personality.


## CHAPTER 1: INTRODUCTION

Companies invest a considerable amount of time and money to develop a successful brand. Mckee (2009) reports that a major retailer like Macy's will spend almost $5 \%$ of sales income on advertising as a way to further brand development. Over time, consumers will learn about a brand's identity through repeated exposure to the brand's different elements (Durgee, 1988), whether it be the logo, packaging, or even the brand's jingle. Consumers more easily relate to and identify with the brand when all of the brand elements are cohesive and create a unified brand identity. The brand's logo and brand personality are often key points of association for consumers (Pittard, Ewing, \& Jevons, 2007; Plummer, 2000). For example, some brands have a fun, hip, and innovative personality where as others are trustworthy and reliable. Together logo and personality type build associations that create strong mental and emotional reactions help to build the brands equity (Gabay, Moskowitz, Beckley, \& Ashman, 2009).

Brand managers use color to attract new customers and to facilitate identification with the brand (Grossman \& Wisenblit, 1999; Silayoi \& Speece, 2007). Design elements, such as color, are used as a way to communicate with consumers and play a substantial role in consumer decision making when shopping time is limited (Silayoi \& Speece, 2004 \& 2007). As explained by Rust, Lemon, and Zeithaml (2004) managers have shifted their focus from short term sales goals to consumer equity creating marketing campaigns that focus on the consumer's perceptions and relationship with the brand. It is imperative for consumers to have positive associations with the brand in order for brand equity to be established (Matzler, 2008). When consumers see a brand's logo they can instantly
recognize the brand because they associate the color harmony they see with the brand. The colors used in a brand's logo help consumers to gain information about the brand's personality. Color consultants are often used as advisors to marketers to figure out which color is most appealing to consumers (Grossman \& Wisenblit, 1999). The orange roof of the Howard Johnson hotel chains attracted families to stay with their hotel for years (Salmans, 1982). In retail settings, colors are used to attract customers into the retail environment and influence their behavior in the establishment (Bellizzi \& Hite, 1992).

## Statement of the Problem

Although there is a wide body of literature concerning the creation and development of brands, literature on the relationship between brand logo and brand personality is lacking. It is necessary for consumers to be able to identify the brand's personality from their logo because brand personality is essential in building a relationship between the brand and the consumer. Furthermore, there is currently a gap in the present literature when it comes to understanding how color affects consumers' perceptions of brand personality. It is possible that some brands currently have logos that actually contain colors that transmit notions opposite of the associations that the brand is trying to convey. When firms create new logos, consumers can become confused about the brand's personality and might not feel as if they know the brand as well as they thought they did. This is what recently happened when Gap tried to introduce a more contemporary logo (Birchall, 2010) and it failed miserably with their target market. This can result in decreased profits for the firm.

## Purpose of the Study

Therefore, the primary purpose of this study is to determine if consumers will apply conventional color associations to hues when they are used in a brand's logo. Secondly, this study will examine whether or not color affects consumers' perceptions of a brand's personality. And thirdly, the present study will investigate whether consumers view a color as more appropriate for a logo when brand personality and color associations are congruent.

This paper will begin by discussing previous literature examining color and the color associations that consumers have learned. The associative learning theory (Grossman \& Wisenblit, 1999) will explain how consumers learn associations with color and how they apply those associations to a brand's logo. The theory of anthropomorphism (Aaker, 1997; Fournier, 1998) will be used to explain how consumers begin to perceive brands as having personalities. Finally, an exploration of color and brand associations will be done in relation to color appropriateness in a brand's logo.

## Significance of the Study

Very limited research has been done on how brand personality is perceived by consumers through the colors used in a brand's logo. Although other research has looked at color being used in corporate logos and found certain colors to have specific association (Hynes, 2009), it has failed to include brand personality in the analysis.

Marketers work very diligently on communicating a brand's personality to the consumer. Also marketers work on creating a successful logo that by itself can fully represent the brand. Knowing how consumers are affected by the colors that are used in a
logo will allow corporations to more accurately chose colors that will evoke favorable responses to their brands.

## CHAPTER 2: REVIEW OF LITERATURE AND HYPOTHESES DEVELOPMENT

This chapter provides a review of literature for the main constructs presented in this study, establishes the theoretical framework that supports the study, and outlines the hypotheses for the study. The constructs in this study include color associations in the use of logos and their relationship to perceived brand personality.

## Color Defined

In order to interpret information in everyday life color is used (Zelanski \& Fisher, 2010) by consumers. Color is a function of light and varying wavelengths; it has historically been associated with life (Birren, 1950; Zelanski \& Fisher, 2010). Wavelengths consisting of radiant energy (Zelanski \& Fisher, 2010) determine hue; short wavelengths create cool colors (i.e., blues, purples, and greens) and longer wavelengths create warmer colors (i.e., reds, oranges, and yellows) (Babin, Hardesty, \& Suter, 2003; Lee \& Rao, 2010). All of these hues are a result of very small differences in wavelengths (Zelanski \& Fisher, 2010). Wavelengths are measured in nanometers and those wavelengths that can be seen by the human eye belong to the visible spectrum (Zelanski \& Fisher, 2010).

Empirical color research suggests that a U-shaped relationship exists between wavelengths; the shortest and longest on opposite points of the U-shape (Babin et al.
2003). Colors that are located on opposite sides of the spectrum are considered to have opposite physiological and psychological effects (Bellizzi \& Hite, 1992). An example of colors that are considered to be opposite on the spectrum would be blue and orange.

Lee and Rao (2010) use two ways to measure color in their study. The first way is to choose one color, such as orange, and compare it to another opposite color, such as blue. The second way is to spell out the color or use a visual representation of the color (Lee \& Rao, 2010). During an experiment the color can be written out in words or the participants can be asked to visualize the color when no color is present (Lee \& Rao, 2010).

## Physiological effects of color

Faber Birren (1961) a long time color researcher studied color and its effect on all life forms; observing both plants and humans. He examined growth patterns of plants when exposed to different wavelengths of light and found that plants exposed to redorange light grew taller than plants exposed to other colors. In humans Birren (1976) studied the way in which humans see color suggesting that it is more than just what the eye sees, it is the how the brain interprets it. Zelanski and Fisher (2010) describe the effects that color has on the human body and what results from exposure to certain colors of light. They explain that each color can be associated with a different part of the body for example orange wavelengths tend to affect the immune system and can help the digestive system (Zelanski \& Fisher, 2010).

In research surrounding store design it was found that color has the power to draw consumers to the store; the physiological effects of color has been examined
(Bellizzi, Crowley, \& Hasty, 1983). It has been reported that warm colors create excitement which can lead to higher blood pressure and a greater frequency of eye blinks (Lee \& Rao, 2010). A consistency throughout the current literature is that cool colors are preferred over warm color environments and so cool colors evoke more positive feelings in a retail setting (Babin et al. 2003). Warmer colors are generally associated with feelings of elation (Bellizzi \& Hite, 1992), while cool colors have the opposite effect creating a sense of relaxation (Lee \& Rao, 2010).

## Color Associations for Products and Shopping Environments

Many colors have associated meanings that most consumers are familiar with, such as red can be associated with fire or blood, (Grossman \& Wisenblit, 1999) love and health, (Kargere, 1979) and courage (Birren, 1950). Red is also known as an appetite stimulant (Hynes, 2009). Green is associated with nature and growth (Birren, 1950) but can also be symbolic of jealousy (Kargere, 1979). According to Kargere (1979) orange is the color of wisdom while Birren (1950) sees it as the hue for strength and yellow is the color of intellect and loyalty (Birren, 1950). Blue is described as sincere and purple is associated with royalty (Birren, 1950). In the USA today consumers continue to associate color with gender; blue for boys and pink for girls (Grossman \& Wisenblit, 1999).

Often times consumers recognize brands by their color, such as Chanel with black, McDonald's with red and yellow (Hynes, 2009), Guinness beer with black and Cadbury chocolate with purple (Bottomley \& Doyle, 2006). The colors used in product packaging influence consumer choices and their purchasing decisions. An example of this would be when a computer company switches its packaging to all white, consumers
may start to think that the company is plan and boring (Grossman \& Wisenblit, 1999). Using the wrong color or combination can be detrimental to the success of a business. When consumers see a health supplement with black and white lettering across the bottle, they are less likely to purchase the product because they associate black and white with poison (Grossman \& Wisenblit, 1999).

Previous studies have explored the differing effects of warm and cool colors on consumers. Lee and Rao (2010) explored the effects of warm and cool color shopping environments on consumer's purchase intentions. Their study reveals that even though consumers are more attracted to warm colors they find cool colors such as blue and green as a way to create a more pleasant shopping environment (Lee \& Rao, 2010). A similar study by Bellizzi and Hite (1992) revealed that consumers had a more positive reaction to blue and those that were exposed to the blue environment were more likely to browse and make a purchase from the simulated store . Despite being drawn to warmer colors, research shows that consumers find such environments to be unpleasant and would prefer to shop in an environment that has cooler colors. The reason for this phenomena may be that the red environment over stimulates consumers and impairs purchasing decisions (Bellizzi \& Hite, 1992).

## The Concept of Brands

Much of brand research focuses on different aspects of the brand such as brand equity (Valette-Florence, Guizani, \& Merunka, 2009; Keller, 1993), brand associations (James, 2005; Keller, 2005), brand extensions (Aaker D. , 1990), and brand elements (Keller, 2005). Brand elements can be defined as brand name, web URLs, symbols,
characters, and logos (Keller, 2005). Furthermore, additional research examines consumers their perception of brands (Fournier, 1998), consumer brand relationships (Sheth \& Parvatiyar, 1995), and brand personality (Aaker J. L., 1997; Batra, Lehmann, \& Singh, 1993; Blythe, 2007; Keller \& Richey, 2006). Brands at a basic level serve as a risk reducer by helping to narrow choices, convey trust, and communicate level of quality (Keller \& Lehmann, 2006).

## Logo Defined

A logo can be defined as a symbol or name that distinguishes one brand from all others (Pittard, Ewing, \& Jevons, 2007). A corporate logo consists of design elements such as image, size, and color (Hynes, 2009) and is usually an array of graphics, colors, and fonts (Pittard et al, 2007). Blumenthal (2001) points out that many companies have a global marketing strategy that relies on the logo to sell their product.

When it comes to communicating with consumers logos play a key part (Kohli, Suri, \& Thakor, 2002). The logo helps to create associations that the consumer begins to recognize and helps to create a relationship between the consumer and brand. A logo that is well-designed should hold a meaning beyond the individual elements used to create it and should evoke an emotional response from the consumer (Pittard et al, 2007). The emotional response is a sign of association with the brand and most consumers recognize a brand's logo instantly (Pittard, Ewing, \& Jevons, 2007).

According to Kohli, Suri, and Thakor (2002) logos can help a brand in two different ways: (1) by being used in conjunction with the brand name; (2) by being used in place of the actual name. When a logo is used in conjunction with the brand name it
helps to create greater brand recognitions and associations (Kohli et al, 2002). It is during this use that the consumer begins to associate the logo with the brand name and the logo begins to take on a its own meaning. Once this second meaning has been established the logo can now stand on its own to represent the brand.

When space or time does not permit for exposure to both the name and logo, it is often best to place the logo on the product to catch the visual attention of the consumer (Kohli et al, 2002). Consumers will select the product that they recognize and often it is the logo that consumers will readily recognize (Kohli et al, 2002) because they are more likey to build an association with the logo than simply the brand name. A logo with color can affect consumers emotionally (Hynes, 2009) and when this happens consumers can build assocations through their emotional connection with the product. Research shows that a logo is recognized faster when the product category is embodied in the logo (Kohli et al, 2002). Recognition that marketers seek to have is when the consumers examine the logo and believe that they have seen it somewhere in the past (Kohli et al, 2002). An example of a logo that is very successful is the Nike Swoosh; in ad campaigns the Nike name does not have to be present since the logo has established a second meaning (Kohli, Suri, \& Thakor, 2002). With in-store brand competition steadily increasing it has become extremely imperative for marketers' that consumers are able to identify with a brand from the exposure to their logo (Kohli et al, 2002).

Logos can help a consumer feel more confident in their purchase by expressing quality in a previous good experience of a product (Kohli et al, 2002). It was found that consumers use the recognition of a brand as a cue to purchase since they have trusting associations with the brand (Matzler, 2008). Research shows that only $40 \%$ of
consumer's purchasing decisions happen outside of the store, which means consumers make over half of their decisions while viewing products on the shelf (Kohli et al, 2002). The emotional response is one of the ways in which the logo helps to set apart the brand from others (Pittard et al, 2007).

## Logo and Color

Beardsley (1961) explains that the term aesthetics is useful as a term that is generic for all works of art. Aesthetics can be defined as visually pleasing and artistically appealing (Tractinsky \& Lowengart, 2007). In works art of an emotional reaction is expected due to the aesthetic appeal and the same constructs should be expected from a well-designed logo; this helps to create resonance with consumers (Pittard, Ewing, \& Jevons, 2007). Design decisions influence the consumer in both their purchase intentions and their impression of the retailer (Tractinsky \& Lowengart, 2007)

Aesthetic appeal is examined in two dimensions: product and environment (Tractinsky \& Lowengart, 2007). In this study by Tractinsky and Lowengart (2007) environment refers to the elements of an online store such as web page colors which were also found to affect consumers' choices. A logo would be considered part of the product category because it relates directly to the how consumers perceive a product. Color is considered to be an element of design and therefore is a part of the aesthetic appeal (Tractinsky \& Lowengart, 2007). When consumers are evaluating a product they can very quickly and easily judge aesthetic appeal, which immediately results in a positive or negative feeling (Tractinsky \& Lowengart, 2007). Since the response time is immediate it
is vital to the success of the product to be able to instantly create a positive feeling from the consumer.

When designing a logo a company tries to influence consumer's impressions of the brand (Colman, Wober, \& Norris, 1995). Choosing the appropriate color for a brand will increase brand equity (Bottomley \& Doyle, 2006). A well designed logo can be considered a competitive advantage as it serves as a communication tool of brand image to the consumer (Hynes, 2009). That is why it is imperative that the brand's logo design conveys the intended characteristics of the brand's personality. Tractinsky and Lowengart (2007) found that business credibility and design appeal were positively correlated, which is another reason that businesses should be aware of how their design choices effect sales in the long run.

## Associative Learning Theory

Associative learning theory can be used to help explain the development of color preferences (Grossman \& Wisenblit, 1999). Consumers learn to prefer a color for a product based on their previous interactions with that product. A good association can lead to a preference for that color (Grossman \& Wisenblit, 1999). Color is also a valuable retrieval tool for consumers (Bottomley \& Doyle, 2006) as it helps the brain retrieve previously learned associations.

According to Grossman and Wisenblit (1999) associative learning occurs when an individual makes associations among the occurrences in their environment. Associative learning is a broad theory that encompasses all systematic pairing of stimuli to construct common connections between them (Grossman \& Wisenblit, 1999). Both colors and
brands have learned associations (Bottomley \& Doyle, 2006) such as the iconic colors of red and yellow that are associated with McDonalds. Consumers perceive brand personality from a variety of associations and there is often some conditioning involved (Batra, Lehmann, \& Singh, 1993) which typically comes from repeated exposure to the brand's elements. Classical conditioning is a method of establishing associations (Grossman \& Wisenblit, 1999), and the most well-known study of classical conditioning was done by Ivan Pavlov (1927) in which dogs illustrated the power of associative learning. The dogs quickly learned to associate the ringing of a bell with being feed so when the bell was rang even if food was not present the dogs would begin to salivate.

Classical conditioning has also been used in creating consumer color preferences and product choice (Grossman \& Wisenblit, 1999). In a study combining color preference and music preference, when blue and beige pens were each individually paired with both pleasant and not pleasant music, participants chose the pen that was paired with the pleasant music (Gorn, 1982). In regards to consumer choice, many consumers will note that they have a favorite color which probably stems from favorable associations that they have with that color (Grossman \& Wisenblit, 1999). When selecting a product however, a consumer's favorite color often does not play a role. Instead, it is likely that consumers chose a product based on previously existing color associations that correspond to product category (Grossman \& Wisenblit, 1999).

An example which Grossman and Wisenblit (1999) used was participant response to dark blue and bright yellow stating that humans associated dark blue with night and therefore their response would be calm or passive, where bright yellow was associated with morning and the response to yellow would then be excitement and energetic. This
differential response could be attributed to the receptor system in the eye which consists of a blue/yellow receptor and red/green receptor. Also there is a difference in wavelength and therefore energy between blue and yellow which would cause humans to experience the colors differently (Zelanski \& Fisher, 2010).

Grossman and Wisenblit (1999) point out that even today humans have similar associations to these colors. Blue and green are seen as calming and relaxing where red and orange are exciting and arousing (Grossman \& Wisenblit, 1999). Consumers are conditioned in a way that helps them to create associations that are derived from the conventional color associations to which they have been previously exposed. These conventional associations will be applied even when the consumer is viewing color within a context; the context in this study is a logo. Therefore, previous literature and the associative color theory provide support for the first hypothesis:

## H1: Consumers will apply conventional color associations to colors that are used in a logo.

## Anthropomorphism

The theory of anthropomorphism helps to explain how consumers can view brands as having a personality and how this can facilitate the development of a relationship (Freling \& Forbes, 2005). Anthropomorphizing is when humans apply human attributes to inanimate objects (Aaker, 1997; Fournier 1998). There is a long history of humans taking an object and humanizing it (Luo, McGoldrick, Beatty, \& Keeling, 2006). It is often with the encouragement of marketers that consumers tend to give human traits to brands (Aggarwal \& McGill, 2007). This has important implications
to marketers because as humans apply personality traits to brands they begin to build a relationship with the brand.

Aggarwal and McGill (2007) provide classifications for the different levels of anthropomorphism. These classifications help to illustrate that there are different levels or degrees to which human anthropomorphize. The three classifications of anthropomorphism are partial, literal, and accidental (Aggarwal \& McGill, 2007). Partial occurs when consumers see the product as having human characteristics, but they do not believe the product to be fully human. Literal anthropomorphism is when the consumer literally believes the product is human. A common example of this would be when consumers give their car a name and speak about it as if it is a person (Aggarwal \& McGill, 2007). When an incident occurs causing the consumer to believe that the product has human attributes it is considered accidental anthropomorphism (Aggarwal \& McGill, 2007). For this study partial anthropomorphism is the classification that will be explored since consumers see brands as having human personality traits and do not believe that the brand is actually human.

In current literature there are several ideas of how to explain anthropomorphism as a phenomena. The importance of anthropomorphism is explained by Aggarwal and McGill (2007) in three different ways. First, it is a way for consumers to build a relationship with the brand. This explanation of relationship building is the one that will be most closely examined in this study. The second explanation is that consumers anthropomorphize in order to make sense of their world. Finally, consumers may use it as a way of seeing everything in their world as human-like (Aggarwal \& McGill, 2007).The
second and third explanations are not directly relevant to this study, but do provide reasonable explanations for why this phenomenon occurs.


#### Abstract

Animism

When a consumer thinks about a brand having human attributes it is known as animism (Aaker, 1997). The theory of animism states that humans feel a "need to anthropomorphize inanimate objects in order to facilitate interactions with the nonmaterial world" (Fournier, 1998, p.344; Gilmore, 1919). Fournier (1998) states that animism is comprised of two concepts; the first is the idea that the brand takes on the spirit of someone else and the second is the brand itself takes on its own human characteristics. The first concept can occur when a spokesperson is used to represent a brand and the consumer applies the personality attributes of that spokesperson to the brand being represented. The second thought is that the brand object itself will take on human attributes (e.g., the Pillsbury Doughboy ${ }^{\mathrm{TM}}$ and Starkist's Charlie ${ }^{\circledR}$ the Tuna) and will serve as an example of the brand's personality (Fournier, 1998). Markets facilitate thoughts of anthropomorphism by creating logos and characters that represent the brand such as Kellogg's Tony ${ }^{\text {TM }}$ the Tiger (Aggarwal \& McGill, 2007), the Michelin Man, and Aunt Jemima $\circledR^{\circledR}$ (Aaker D. , 1990). Sometimes a logo and character are used in the same way to help aid in the development of the relationship between consumer and brand. In advertising, brand personality is perceived from every element of a brand, including logo, layout, and typography (Batra et al, 1993). This study investigates the role of the brand's logo in consumers' perceptions of brand personality.


## Brand Associations Defined

Brand associations connect the consumer to the brand (Keller, 1993; Blythe, 2007; Czerniawski \& Maloney, 1999), provide differentiation, and help to communicate the brand position (Aaker , 1990). Park and John (2010) give the examples of Cartier being associated with sophistication and Timex ${ }^{\circledR}$ with ruggedness. Aaker (1990) provides the example of using the brand name "Jeep®" for a line of shoes saying that consumers would automatically associate the shoes with adventure since Jeep® is known for their line of sport utility vehicles. Consumers establish a brand image from the sum of all brand associations and related activities (Blythe, 2007). Parker (2009) suggests that the general idea of brand image is that if consumers link associations to a brand that are strong and favorable consumers will prefer that particular brand. Keller (2003) supports this by saying that congruity among associations result in more positive brand associations. According to Opoka et al. (2007), a brand is a way to ensure survival of a firm since it helps to facilitate repeat purchases. As Blythe (2007) explains a brand is the focus of the business's marketing activities, specifically those that involve creating resonance with consumers. Brand resonance is when consumers feel a strong loyalty and connections to the brand (Keller, 2005).

## Brand Personality

Brand personality can be defined as attributing human characteristics to brands (Aaker J. L., 1997; Keller \& Richey, 2006; Milas \& Mlacic, 2007). Brand personality differentiates a brand from competitors (Park \& John, 2010; Phau \& Lau, 2000) and serves as an extension of self-expression for consumers (Aaker J. L., 1997). Furthermore
brand personality positively affects brand equity (Valette-Florence, Guizani, \& Merunka, 2009) which is considered to be the value of a brand (Hoeffler \& Keller, 2003) and helps to facilitate a consumer brand relationship (Fennis \& Pruyn, 2006) by creating a bond between consumer and brand (Olsen \& Allen, 1995).

The most common instrument used to measure brand personality is Aaker's (1997) Brand Personality Scale (BPS) (Azoulay \& Kapferer, 2003; Freling \& Forbes, 2005). In the study conducted by Aaker (1997) participants were asked to evaluate a group of brands given information about the brand's characteristics. From this study five dimensions of brand personality were defined, which were made up of 15 facets totaling 42 personality traits (Phau \& Lau, 2000). The five dimensions of Aaker's brand personality scale are sincerity, excitement, competence, sophistication, and ruggedness (Aaker, 2001). Sincerity is used to describe a brand that is honest and warm (Aaker, 2001). Excitement captures a brand that is high energy, whereas competence indicates a brand that is dependable (Aaker, 2001). Sophistication and Ruggedness are less clear in the way they are defined, but can be denoted by such characteristics as charm and class, and masculinity and toughness, respectively (Aaker, 2001). The five dimensions of brand personality will be used in this study to categorize brands by their personality that is perceived by the colors used.

Aaker's BPS (1997) has been used by many researchers as a way of capturing brand personality. In the study done by Rojas-Mendez, Erenchun-Podlech, and SilvaOlave (2004), consumers in Chile evaluated brand personality using all 42 traits of the BPS. Results indicated that only two of the dimensions loaded onto Aaker's scale.

However Aaker (2001) also studied brand personality across cultures and found that there
were very limited cultural differences when it came to the perception of brand personality. The study examined Coca-Cola ${ }^{\circledR}$ and Pepsi-Cola ${ }^{\circledR}$ and the differences in perception of brand personality between American and Japanese people. The results from the study showed all dimensions had high levels of agreement for the personality characteristics found for the brand except for the dimension of ruggedness (Aaker, 2001).

Brand personality tends to be constructed in the minds of consumers (Parker, 2009). Durgee (1988) uses the analogy of a writing a story in order to explain how a brand's personality is formed and used to create resonance with consumers. The story elements (i.e., plot, setting, mood, symbolism, and characters) can be representative of brand elements. In regards to symbolism, consumers understand there are aspects of the story which have an understood meaning or a hidden meaning (Durgee, 1988). When Durgee (1988) discusses symbolism he addresses the importance of the use of color. An example used by Dugree (1988) is the brand of Kool-Aid®. Consumers distinctly recall the color red which they associate with the most popular flavor - cherry. It is suggested that the darker the color red the more consumers are drawn to the product (Durgee, 1988). Consumers associate dark red with the natural fruit. It is evident that the color plays an important part in the meaning consumers develop with a brand (Durgee, 1988).

When a consumer is trying to recall a brand they think of it as a whole story, but then try to pick out the little details to understand what the story represents (Durgee, 1988). The little details in the story are noted by Durgee (1988) as irrelevancies which he says are the details that are used to evoke emotions in consumers, which is why irrelevancies are commonly used in the marketing of products. It can be argued for the purpose of this study that the irrelevancies he speaks of are the individual personality
characteristics that make up the brand's overall personality. Once consumers are aware of all facets of a brand's personality they can begin to relate to the brand.

In their discussion of consumer memory and brand personality Freling and Forber (2005) use the example of the Gap®, stating that Gap's logo which is white with a navy blue background fits the Gap's personality because it is bold, yet simple. Recently, in an effort to update their logo to a more contemporary design, Gap tried to launch a new logo that consisted of black letters and a small blue square in the background. The attempt failed, however due to the out pouring of negative feedback by online communities (Birchall, 2010). Consumers felt that this logo wasn't representative of the brand personality that they perceive for the Gap. This is a great example of how the brand's logo and use of color communicates brand personality.

## Consumers and their Perception of Brand Personality

Plummer (1984) explains that brand personality has two faces. The first is input which is what the marketers want the consumers to perceive about the brand and the second is out-take which is what the consumers actually perceive about the brand (Plummer, 1984). He (1984) then continues on to say that there are two forms in which brand personality is communicated; the first being a brand personality statement which indicates the goals of the company and the second being the consumer perceptions.

Human personality traits are established from the direct interactions that one has with that individual (Aaker J. L., 1997). Brand personality traits can be established through both indirect and direct interaction (Aaker J. L., 1997). During indirect contact with a brand, personality traits are inferred from name, logo, and other associations
consumers have with brands (Aaker J. L., 1997). Azoulay and Kapferer (2003) explain that a brand has more meaning to consumers when they can identify the personality of the brand. This is why the perception of personality through a brand's logo is so vital to the success of the brand. A brand's personality can be described similarly to that of a human personality and can be seen as credible or even friendly (Blackston,1992). Consumers establish a personality for most brands that they come in contact with. Brand personality is said to include such demographic information as age, gender, and even social status (Aaker J. L., 1997). In terms of business, products that consumers see as having distinct and relatable personalities are considered to be stronger in the long term (Aggarwal \& McGill, 2007). Brand personality generates feelings, allows for self-expression, and facilitates relationships (Freling \& Forbes, 2005; Fennis \& Pruyn, 2006).

Consumers tend to gravitate towards brands that have personalities similar to their own (Batra, Lehmann \& Singh, 1993). Shank and Langmeyer (1994) found that consumers who can identify themselves in a product are more likely to choose that product over other alternatives. When consumers have the ability to view themselves as similar to the brand they are trying to identify with, the consumer-brand relationship begins to form. A relationship is cultivated by the exposure to the images and personality traits of a brand (Aggarwal \& McGill, 2007). Consumers create a set of human characteristics that they associate with the use of the brand and this set of images is known as user imagery (Aaker J. L., 1997). A brand's logo is the central image that consumers are repeatedly exposed to which is key in cultivating the relationship. According to Blackston (1992), the way in which people gauge another's personality is usually by noting how it interacts with their own personality and the interaction between
two personalities is what we classify as a relationship. Since what the core of this study is investigating revolves around the relationship of the consumer and the brand it is important to examine how that relationship is established.

## Consumer's perception of Personality and the Role Color Plays

Color serves as a method of revealing personality traits (Kargere, 1979) and expresses moods and feelings which lead to emotional responses (Birren, 1950). In this study color is used as a link between the consumer's feelings towards the brand and their perception of brand personality. Color is the mood creator that contributes to the emotional feelings of the consumer (Bellizzi \& Hite, 1992). Kargere (1979) discusses color and its relationship to personality. Color preference has a direct link to personality (Birren, 1950). It is suggested that consumers wear their personality on their backs and that the colors that they choose to represent themselves through their clothing emits their personality (Kargere, 1979). In a color study done by Birren (1950), humans that had the personality characteristics of an extrovert favored red where as those with introvert personality characteristics favored blue. Therefore previous literature and the theory of anthropomorphism provide support for the following hypothesis:

## H2: Consumers will attribute personality traits to brands through the use of color in

 the logo.
## Appropriateness of Color Choice in a Logo

In this study appropriateness will be defined as how suitable a color is for use in a brand's logo (Bottomley \& Doyle, 2006). Although previous studies have examined the appropriateness of color combinations and type face (Bottomley \& Doyle, 2006; Schiller,

1935; Doyle \& Bottomley, 2004), there has been limited research measuring the appropriateness of a single color and its associations. Keller (1993) points out that when there is congruence between brand associations it can build strength and favorability. Appropriateness of color choice has previously been studied because it is thought to be a main concern of marketers in selecting brand elements (Bottomley \& Doyle, 2006). Color combination is said to be one of the most important factors in creating an advertisement that is pleasant and appealing to consumers (Schiller, 1935). Schiller (1935) found that the appropriateness of color combinations depended upon the situation in which the colors were used. She also noted that appropriateness can be subjective, but also that a consensus of opinion should be taken in order to determine the general appropriateness (Schiller, 1935). Also, when it comes to associations it is those that consumers already have that are most influential on determining the appropriateness of color (Schiller, 1935).

In 2006, Bottomley and Doyle investigated color and brand logo appropriateness from the perspective that brands fall into two categories: functional brands and sensorysocial brands. They hypothesized that the color blue, being associated with trustworthiness and dependability, would be more appropriate for functional brands and the color red, being associated with excitement, power, and joy, would be more appropriate for sensory-social brands (Bottomley \& Doyle, 2006). Their results confirmed their hypotheses that blue is more appropriate for functional brands and red was more appropriate from sensory-social brands. Therefore, based on previous studies concerning the appropriateness of color, the following hypothesis is proposed:

# H3: When the brand personality and color associations are congruent, the color will be more appropriate for the brand's logo. 

## CHAPTER 3: METHODOLOGY

Chapter three provides the following sections: (1) research design, (2) stimulus development, and (3) data analysis techniques.

## Research Design

In order to test the hypotheses in this study a survey was conducted. A logo was developed to determine if consumers will apply conventional color associations to hues in a brand's logo, if color affects consumers' perceptions of a brand's personality, and if consumers view a color as more appropriate for a logo when brand personality and color associations are congruent. Facebook, a social networking site with almost 600 million users (Verde, 2011) was used to distribute the pretest and survey. A pretest was administered to a group of Facebook users of a variety of ages to ensure that the participants had no previous associations for the design of the logo and that it was easily understood by participants.

## Stimulus Development

The logo used for the main study was modeled after Hynes's (2009) study of corporate logos (see Appendix A). Although Hynes (2009) used multiple logo designs to represent brand categories, this study uses only one logo design to insure that participants are not inferring information about the brand other than the colors that are used. The logo
was created using three geometric shapes: a circle, triangle and square. Geometric shapes were used because they simplistic and humans tend to choose form over color so it helps to reduce the distraction of the shape (Birren, 1978). The colors for the logos in this study are adapted from Bottomley and Doyle (2006). The colors are defined by pantones color system as: green (3435U), blue (2747U), red (1797Y), yellow (3965U), pink (213U), and purple (2612U). Colors can be replicated and found online at Pantone.com by searching Pantone's color database. The main experiment was broken up into two sections. The first section addressed hypothesis one and hypothesis two, and the second section addresses hypothesis three.

## Pretest

A pretest was administered online (see Appendix A) to 20 Facebook users including a variety of age groups to enhance the generalizability of our findings. Participants were asked to indicate if they had trouble understanding any of the survey questions as they completed the pretest. Participants were also asked to carefully view the logo created and indicate in two open ended questions 1) if the created logo was reminiscent of any logo that they have seen in real life, and 2) the name of the brand that the created logo resembles. The feedback from the pretest resulted in only one significant change as none of the participants indicated that the logo was reminiscent of another logo. The change that occurred was the way in which the color vision test was phrased. To clarify the question participants were asked, "What image do you see in the picture?" instead of the original question of, "What shape do you see in the picture?"

## Instrument

## Survey Section 1

The first part of the survey (see Appendix B) measured the associations that consumers have with colors (H1). To test hypothesis 1, participants were shown a logo in a variety of colors (e.g., green, blue, red, yellow, dark pink, and purple). Participants were asked to select the association that they think best fits the color in the logo from a list of five (e.g. trustworthy, natural, playful, warm, prestigious, etc.). Associations were chosen based on findings by Hyne's (2009) study of color and meaning in logos. One association matched, others were randomly chosen.

Next, hypothesis two was tested. Participants were shown a logo in one of the colors listed above and then asked, "If this logo represented a brand, please select personality traits that you feel would best represent the brand. Check all that apply." A list of personality traits from the Brand Personality Scale (see Appendix C) developed by Aaker (1997) was given (e.g. feminine, tough, sincere, friendly, and cheerful). Participants were able to select from all of the 42 traits identified by Aaker (1997).

## Survey Section 2

The second part of the survey measured hypothesis 3 . The participants were shown the same logo in a given color the same as in the first section of the survey, but this time they were also provided with a description of the brand. The description contained two brand personality terms derived from the personality traits defined by Aaker (1997). The two personality terms are from the same dimension and were either congruent with the color or not congruent with the color associations. The incongruent
colors were randomly chosen. Participants were asked to rate the appropriateness of the color choice for the logo on a 7-point Likert scale ( $1=$ highly inappropriate, $7=$ highly appropriate) adapted from Bottomley and Doyle (2006).

Color Blindness Measure. In order to make sure that participants are able to accurately view the colors in the survey a color vision test administered. If participants did not pass the color vision test they would not be able to access the rest of the survey. The color vision test asked participants to identify a picture within a series of colored dots. The image (see Appendix B) used for the color vision test was taken from Dr. Kalmus's (1965) book about defective color vision.

## Demographic Questions

A set of demographic questions were included in the survey to gain a better understanding of the samples characteristics. A screening question that asked if participants were 18 years of age or older was included to make sure those participants met the qualifications for taking the survey. Other demographic questions asked the highest level of education completed, yearly income, age, and gender. Additional demographic questions included which religious, ethnic, and racial groups that participants considered themself to be a member.

## Sampling and Data Collection Procedures

The method of sampling used was snowball sampling (Goodman, 1961).
According to Babbie (2008), snowball sampling is named for the process of accumulating participants. In the first stage of snowball sampling each individual is asked to
recommend others to participate (Goodman, 1961). Next, the second stage is for those people to recommend others to participate.

This study used the social network Facebook to obtain its participants through the method of snowball sampling. Data was collected between the dates of February 8, 2011 and February 22, 2011 via a survey distributed on Facebook. The first stage that occurred was that the survey was sent out in a Facebook message to the 20 "friends" of the researcher. The initial 20 people were selected from a variety of age groups ranging from 18 to 52 and geographical locations ranging from Germany to the east coast of the US to diversify the sample. They were also equally split between men and women. Two of the initial 20 had over a thousand friends, four had less than three hundred friends, and the other fourteen had on average six hundred friends. They were asked to take the survey themselves and were then instructed to send the survey onto their friends. The invitational message (see Appendix C) explained the data collection process (i.e. snowball sampling definition, further instructions, etc.). Survey responses were collected over a two week period and a reminder message was sent out five days after the invitational message was originally sent to the researchers' "friends" and then a final reminder was sent five days after that.

When the Facebook users received the survey inviting their participation in the study, they were instructed to click on a link that took them to the information page to help them decide if they would like to participate. Participants were then required to give an electronic signature of consent. The participants were asked if they were of 18 years of age or older. If they did not meet this age requirement then they were disqualified from the study.

## Data Analysis

The computer software program, Statistical Package for the Social Sciences (SPSS 19), was used for all statistical data analysis. Upon conclusion of the study, data was entered into SPSS for initial descriptive analysis of demographic information of respondents. Comparisons among participants were made using frequencies and percentages to provide an overview of survey respondents. The categorical data collected to test hypothesis one was tested by way of a chi square test which is used to determine if there is a significant difference between the expected and observed values. Descriptive statistics were used to analyze hypothesis two in order to conclude if participants placed colors used in the logos into any of the five BPS factors outlined by Aaker (1997). A chi square test was again used to test hypothesis three determining the significance of the appropriateness of color used in logos.

## CHAPTER 4: RESULTS

Chapter 4 includes (1) a description of the sample including a demographic profile, (2) chi square test for hypothesis one, (3) descriptive statistics to measure brand personality, (4) chi square to determine the appropriateness of color used in logos.

## Description of the sample

A total of 258 participants were recruited for the study. Out of these participants, 63 responses were not used due to missing data and 11 more were disqualified due to failure of the color vision test or the age restriction, leaving a total of 184 usable surveys. A brief description of participants follows; to find a full demographic report see figure 1.

Respondents consisted of 55 (29.9\%) males and 129 (70.1\%) females. The age of the participants ranged from 18 to over 55 with 102 ( $55.4 \%$ ) of participants being between the ages of 18-24. Of the 184, 35 (19.0 \%) have completed some college, 94 ( $51.0 \%$ ) have a Bachelor's degree, and 38 (20.6\%) have a Master's degree. The study participants represented 57 (31.0\%) Protestant Christian, 46 (25.0\%) Roman Catholic, 9 (4.9\%)

Hindu, and 57 (30.9\%) have another religious affiliation. The demographic questions also asked about participants' ethnicity, annual income, period of time living in the USA, and region of the USA (see table 4.1).

## Table 4.1

Survey respondents' socio-demographic information

| Variable | Frequency | Percentage |
| :--- | :---: | :---: |
| Gender |  |  |
| Male | 55 | $29.9 \%$ |
| Female | 129 | $70.1 \%$ |
| Age |  |  |
| 18 and Under | 1 | $0.5 \%$ |
| 18 to 24 | 47 | $55.4 \%$ |
| 25 to 34 | 27 | $25.5 \%$ |
| 35 to 54 | 7 | $14.7 \%$ |
| 55 and Over |  | $3.8 \%$ |
| Education Level | 1 |  |
| 12 | 4 | $0.5 \%$ |
| High School degree | 35 | $2.1 \%$ |
| Some college education | 5 | $19.0 \%$ |
| Associate degree | 94 | $2.7 \%$ |
| Bachelor's degree | 38 | $51.0 \%$ |
| Master's degree | 4 | $20.6 \%$ |
| Doctoral degree | 3 | $2.2 \%$ |
| Professional Degree |  | $1.6 \%$ |
| Religious Affiliation | 57 |  |
| Protestant Christian | 46 | $31.0 \%$ |
| Roman Catholic | 7 | $25.0 \%$ |
| Evangelical Christian | 6 | $3.8 \%$ |
| Jewish |  | $3.3 \%$ |


| Muslim | 1 | $0.5 \%$ |
| :--- | :---: | :---: |
| Hindu | 9 | $4.9 \%$ |
| Buddhist | 1 | $0.5 \%$ |
| Other | 57 | $30.9 \%$ |
| Ethnicity |  |  |
| Asian/Pacific Islander | 14 | $7.6 \%$ |
| Black/African-American | 4 | $2.2 \%$ |
| Caucasian/White | 158 | $85.9 \%$ |
| Hispanic | 0 | $0.0 \%$ |
| Native American | 1 | $0.5 \%$ |
| Other | 7 | $3.3 \%$ |
| Income |  |  |
| Less than \$25,000 | 77 | $41.8 \%$ |
| \$25,000-\$34,999 | 23 | $12.5 \%$ |
| \$35,000-\$49,999 | 37 | $20.1 \%$ |
| \$50,000-\$74,999 | 27 | $14.6 \%$ |
| \$75,000-\$99,999 | 6 | $3.26 \%$ |
| \$100,000-\$124,999 | 6 | $3.26 \%$ |
| \$125,000-\$149,999 | 3 | $1.6 \%$ |
| \$150,000 or more | 5 | $2.7 \%$ |
| If Currently in the USA how long have |  |  |
| you lived here |  |  |
| 1-2 years | 6 | $3.3 \%$ |
| 3-5 years | 2 | $1.1 \%$ |
| 5-7 years | 1 | $0.5 \%$ |
| 7-10 years | 1 | $0.5 \%$ |
| 11-15 years | 3 | $1.6 \%$ |
| 16-20 years | 13 | $6.8 \%$ |
| More than 20 years | 146 | $79.3 \%$ |
| Currently do not live in USA | 12 | $6.5 \%$ |
| Which area of the USA do you currently |  |  |
| live in. | 23 | $12.5 \%$ |
| Northeast | 8 | $10.9 \%$ |
| Southeast | 8 | $64.7 \%$ |
| Midwest |  | $3.3 \%$ |
| Northwest | $4.3 \%$ |  |
| Southwest | $4.3 \%$ |  |
| None of the above |  |  |

## Hypothesis Testing

Hypothesis 1. A chi-square test was used to identify whether the proportion of participants selecting a color association for the logo (i.e., blue, green, pink, red, yellow,
and purple) significantly differed from each other. The chi-square test was chosen because the data collected is categorical rather than continuous and the data was not normally distributed. Consistent with the first hypothesis, the majority of participants chose the color association that is most widely accepted as the association for that particular color. The results suggest that the proportions of the groups are significantly different from each other $\chi^{2}(4, \mathrm{~N}=184)=112.141, p<.000$. For the color blue, participants selected the association trustworthy (45.1\%) more than any other association. The association healthy (56.0\%) was selected for green, fun (77.2\%) was selected for pink, passionate ( $44.0 \%$ ) was selected for red, energetic ( $73.9 \%$ ) was selected for yellow, and playful (30.4\%) was selected for purple. All other logo colors were also found to have associations chosen that were significantly different from each other; the results indicating this can be found in Table 4.2.

Table 4.2
Results of Chi-Square Analysis

| Color and Significant Association | $n$ frequency | Percent \% | N | df | $\chi^{2}$ | $p$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Blue |  |  |  |  |  |  |
| Trustworthy | 83 | 45.1\% | 184 | 4 | 122.316 | . 000 |
| Warm | 18 |  |  |  |  |  |
| Happy | 6 |  |  |  |  |  |
| Energetic | 20 |  |  |  |  |  |
| Playful | 58 |  |  |  |  |  |
| Green |  |  |  |  |  |  |
| Healthy | 103 | 56.0\% | 184 | 4 | 190.126 | . 000 |
| Protective | 45 |  |  |  |  |  |
| Passionate | 5 |  |  |  |  |  |
| Dynamic | 25 |  |  |  |  |  |
| Exciting | 5 |  |  |  |  |  |
| Pink |  |  |  |  |  |  |
| Fun | 142 | 77.2\% | 184 | 4 | 405.635 | . 000 |


| Trustworthy | 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Passionate | 36 |  |  |  |  |  |
| Prestigious | 2 |  |  |  |  |  |
| Reliable | 3 |  |  |  |  |  |
| Red |  |  |  |  |  |  |
| Passionate | 81 | 44.0\% | 184 | 4 | 72.769 | . 000 |
| Justice | 19 |  |  |  |  |  |
| Secure | 25 |  |  |  |  |  |
| Energetic | 48 |  |  |  |  |  |
| Stable | 16 |  |  |  |  |  |
| Yellow |  |  |  |  |  |  |
| Energetic | 136 | 73.9\% | 184 | 4 | 370.002 | . 000 |
| Trustworthy | 8 |  |  |  |  |  |
| Secure | 11 |  |  |  |  |  |
| Healthy | 17 |  |  |  |  |  |
| Protective | 11 |  |  |  |  |  |
| Purple |  |  |  |  |  |  |
| Playful | 56 | 30.4\% | 184 | 4 | 13.731 | . 008 |
| Secure | 23 |  |  |  |  |  |
| Justice | 34 |  |  |  |  |  |
| Stable | 38 |  |  |  |  |  |
| Fun | 35 |  |  |  |  |  |

The color association with the highest percentage is listed as it is the association that differs the most from the other associations.

Hypothesis 2. Descriptive statistics were used to analyze hypothesis two.
Frequencies and percentages were used to analyze which of the 42 personality traits derived from Aaker (1997) were applied to each colored logo. Personality traits that were selected by more than twenty percent of participants were examined to determine the fit within the five dimensions (i.e., sincerity, excitement, competence, sophistication, ruggedness) defined by Aaker's (1997) brand personality scale. For the blue logo eight of the traits associated with competence showed substantial ( $\mathrm{n}>37$ ) rates, seven traits from the sincerity dimension were associated with green, nine traits associated with excitement into pink, seven traits from the competence dimension were associated with red, eight traits from the excitement dimension were associated with yellow, and seven traits from
the excitement dimension were associated with purple (Table 4.3). For all of the colors except purple, a predominant dimension was evident. In regards to purple, excitement received the most traits selected, but there were two other dimensions (sincerity and competence) that had four traits selected.

Table 4.3
Brand Personality Scale Dimensions and Logo Color

| Variable | Frequency | Percentage | Dimension |
| :--- | ---: | ---: | ---: |
| Blue Logo |  |  |  |
| Down to Earth | 53 | $28.8 \%$ | Sincerity |
| Family- Oriented | 38 | $20.7 \%$ | Sincerity |
| Sincere | 54 | $29.3 \%$ | Sincerity |
| Honest | 61 | $33.2 \%$ | Sincerity |
| Real | 40 | $21.7 \%$ | Sincerity |
| Cool | 40 | $21.7 \%$ | Excitement |
| Reliable | 64 | $34.8 \%$ | Competence |
| Hard Working | 55 | $29.9 \%$ | Competence |
| Secure | 55 | $29.9 \%$ | Competence |
| Intelligent | 53 | $28.8 \%$ | Competence |
| Corporate | 70 | $38.0 \%$ | Competence |
| Successful | 57 | 31.0 | Competence |
| Leader | 61 | $33.2 \%$ | Competence |
| Confident | 78 | $42.4 \%$ | Competence |
| Masculine | 39 | 21.2 | Ruggedness |
| Green Logo |  |  |  |
| Down to Earth | 97 | $52.7 \%$ | Sincerity |
| Small town | 40 | $21.7 \%$ | Sincerity |
| Family | 41 | $22.3 \%$ | Sincerity |
| Sincere | 37 | $20.7 \%$ | Sincerity |
| Honest | 42 | $22.8 \%$ | Sincerity |
| Real | 43 | $23.4 \%$ | Sincerity |
| Wholesome | 64 | $34.0 \%$ | Sincerity |
| Reliable | 47 | $25.5 \%$ | Competence |
| Hardworking | 43 | $23.4 \%$ | Competence |
| Outdoorsy | 98 | $53.3 \%$ | Ruggedness |
| Masculine | 37 | $20.1 \%$ | Ruggedness |
| Tough | 43 | $23.4 \%$ | Ruggedness |
| Rugged | 52 | $28.3 \%$ | Ruggedness |
| Pink Logo |  |  |  |
| Cheerful | 117 | $63.6 \%$ | Sincerity |
|  |  |  |  |


| Friendly | 90 | 48.9\% | Excitement |
| :---: | :---: | :---: | :---: |
| Daring | 46 | 25.0\% | Excitement |
| Trendy | 108 | 58.7\% | Excitement |
| Exciting | 86 | 46.7\% | Excitement |
| Spirited | 89 | 48.4\% | Excitement |
| Cool | 73 | 39.7\% | Excitement |
| Young | 128 | 69.6\% | Excitement |
| Imaginative | 69 | 37.5\% | Excitement |
| Unique | 65 | 35.3\% | Excitement |
| Contemporary | 39 | 21.2\% | Competence |
| Confident | 40 | 21.7\% | Competence |
| Glamorous | 81 | 44.0\% | Sophistication |
| Good Looking | 39 | 21.2\% | Sophistication |
| Charming | 39 | 21.2\% | Sophistication |
| Feminine | 133 | 72.3\% | Sophistication |
| Red Logo |  |  |  |
| Real | 37 | 20.1\% | Sincerity |
| Original | 39 | 21.2\% | Sincerity |
| Daring | 71 | 38.6\% | Excitement |
| Exciting | 49 | 26.6\% | Excitement |
| Spirited | 47 | 25.5\% | Excitement |
| Independent | 41 | 22.3\% | Competence |
| Reliable | 37 | 20.1\% | Competence |
| Hard Working | 46 | 25.0\% | Competence |
| Secure | 43 | 23.4\% | Competence |
| Successful | 55 | 29.9\% | Competence |
| Leader | 57 | 31.0\% | Competence |
| Yellow Logo |  |  |  |
| Cheerful | 120 | 65.2\% | Sincerity |
| Friendly | 80 | 43.5\% | Excitement |
| Trendy | 46 | 25.0\% | Excitement |
| Exciting | 71 | 38.6\% | Excitement |
| Spirited | 90 | 48.9\% | Excitement |
| Cool | 44 | 23.9\% | Excitement |
| Young | 70 | 38.0\% | Excitement |
| Imaginative | 63 | 34.2\% | Excitement |
| Unique | 56 | 30.4\% | Excitement |
| Confident | 48 | 26.0\% | Competence |
| Purple Logo |  |  |  |
| Sincere | 43 | 23.4\% | Sincerity |
| Honest | 47 | 25.5\% | Sincerity |
| Real | 46 | 25.0\% | Sincerity |
| Friendly | 46 | 25.0\% | Sincerity |
| Trendy | 49 | 26.6\% | Excitement |
| Spirited | 37 | 20.1\% | Excitement |


| Cool | 56 | $30.4 \%$ | Excitement |
| :--- | :--- | :--- | ---: |
| Young | 52 | $28.3 \%$ | Excitement |
| Imaginative | 50 | $27.2 \%$ | Excitement |
| Unique | 54 | $29.3 \%$ | Excitement |
| Contemporary | 38 | $20.7 \%$ | Excitement |
| Reliable | 38 | $20.7 \%$ | Competence |
| Successful | 37 | $20.1 \%$ | Competence |
| Leader | 41 | $22.3 \%$ | Competence |
| Confident | 60 | $32.6 \%$ | Competence |
| Glamorous | 43 | $23.4 \%$ | Sophistication |
| Feminine | 51 | $27.7 \%$ | Sophistication |
| Smooth | 37 | $20.1 \%$ | Sophistication |

Hypothesis 3. To test hypothesis three two separate chi-square tests were performed (see Table 4.4). This is because of reverse coding that was done with the pink and purple variables. Pink and purple were randomly selected to have incongruent color associations and brand description. The chi-square test was again chosen because the data was not normally distributed and required the use of a non-parametric test. A chi-square test was used to identify whether the proportion of participants selecting color appropriateness for the logo (i.e., blue, green, pink, red, yellow, and purple) significantly differed from each other. The data was collected using a 7-point Likert scale, so those responses that indicated a 5 or above were considered appropriate and those responses 4 and below were considered inappropriate. The data was coded into categorical data forming two groups; appropriate and inappropriate. In the first chi-square test the results suggested that the proportions of the groups are significantly different from each other $\chi^{2}$ $(1, \mathrm{~N}=184)=48.020, p$ <.000. Participants indicated that the color blue was appropriate for a brand that is honest and sincere. Also indicated as appropriate was green for a brand that is down to earth and wholesome, red for an exciting and daring brand, and yellow for a cheerful and friendly brand. Pink was reversed coded and therefore was found to be
significantly inappropriate for a brand that is masculine and tough. Purple was also reverse coded, but was found to not be significant. Complete results indicating this can be found in Table 4.4.

## Table 4.4

Results of Chi-Square Analysis determining appropriateness

| Color and brand description | n frequency | $\begin{gathered} \hline \text { Percent } \\ \% \end{gathered}$ | N | df | $\chi^{2}$ | $p$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Blue |  |  |  |  |  |  |
| Honest and Sincere |  |  | 189 | 1 | 48.020 | . 000 |
| Appropriate | 149 | 74.5\% |  |  |  |  |
| Inappropriate | 51 | 25.5\% |  |  |  |  |
| Green |  |  |  |  |  |  |
| Down to earth and |  |  |  |  |  |  |
| Appropriate | 163 | 81.5\% |  |  |  |  |
| Inappropriate | 37 | 18.5\% |  |  |  |  |
| Pink |  |  |  |  |  |  |
| Masculine and tough |  |  | 189 | 1 | 58.320 | . 000 |
| Appropriate | 3 | 1.5\% |  |  |  |  |
| Inappropriate | 197 | 98.5\% |  |  |  |  |
| Red |  |  |  |  |  |  |
| Exciting and daring |  |  | 189 | 1 | 141.120 | . 000 |
| Appropriate | 154 | 77.0\% |  |  |  |  |
| Inappropriate | 46 | 23.0\% |  |  |  |  |
| Yellow |  |  |  |  |  |  |
| Cheerful and |  |  |  |  |  |  |
| friendly |  |  | 189 | 4 | 188.180 | . 000 |
| Appropriate | 184 | 92.0\% |  |  |  |  |
| Inappropriate | 16 | 8.0\% |  |  |  |  |
| Purple |  |  |  |  |  |  |
| Small-town and sentimental |  |  | 189 | 4 | 1.814 | . 178 |
| Appropriate | 90 | 45.0\% |  |  |  |  |
| Inappropriate | 109 | 54.5\% |  |  |  |  |

## CHAPTER 5: CONCLUSIONS

This chapter includes (1) discussion of the major findings, (2) implication and contributions of findings, and (3) study limitations and future research suggestions.

## Discussion of Findings

A number of steps were taken to achieve a diverse population. The initial 20 people who the survey was distributed to were selected to insure diversity. The 20 was even split between men and women, consisted of several age groups and include two people who do not consider the US to be their home country. However, even with this effort the sample mainly consisted of white females from the Midwest, between the ages 18 and 24 , whom are highly educated. The Midwest, is the center point of the United States' population which, consists of a mostly white non-Hispanic population (Nasser \& Overberg, 2001). It is possible that results would differ if the sample was taken from a more diverse population or even a population other than the Midwest.

The participants' responses to questions regarding hypothesis one were subjected to a chi-square test to determine if there was significance to participants choosing one association over the others. Results suggest that participants do apply conventional color associations to colors that were used within a logo. For example, blue is widely known as the color of truth and $45 \%$ of the respondents associated blue with trustworthiness.

Results for hypothesis two suggest that the colors fit into several of the five dimensions that are defined by Aaker (1997). The five dimensions of Aaker's brand personality scale are sincerity, excitement, competence, sophistication, and ruggedness (Aaker, 2001). The colors blue and red both fell into the dimension of competence which
indicates a brand that is dependable (Aaker, 2001). Sincerity describes a brand that is honest and warm (Aaker, 2001) which is captured by the color green. Pink, yellow, and purple are all classified as the dimension of excitement which denotes a brand that is high energy. Sophistication and Ruggedness are less clear in the way they are defined because they capture aspirational ideas rather than basic tendencies (Aaker, 2001) and this could be a reason that none of the colors fit exclusively into these dimensions.

It was evident that congruency between brand personality and color association resulted in appropriateness of color choice. Participant's responses were categorized as appropriate or inappropriate for the brand description. The logos that contained blue, green, red, and yellow were found to be appropriate which was significant since all of these logos were given congruent brand personality and color associations. The logos that contained pink and purple were found to be inappropriate which was significant because they were reversed coded and had incongruent brand personality and color associations.

## Contributions and Implications

Theoretical implications. This study contributes to the limited research that relates logo color to brand personality. This study used the associative learning theory to give a greater understanding of the relationship between color, logo and brand personality. This is supported by the associative learning theory as an explanation for the associations consumers make with brands.

Also, this study is unique in using Facebook as a method of survey distribution for academic research. It is useful to develop validity for this method of data collection in academic work. Facebook is the most popular social network having 596 million
members (Verde, 2011) and will give researchers access to millions of participants with diverse geographical locations. There are 298 million males on facebook, 288 million females, and 10 million who chose not to disclose their gender. For those researches interested in the American market there are 248.6 million Americans who use Facebook (Verde, 2011). Students in college are frequent users of Facebook and it is beneficial to find out that they are willing to participants in studies that are distributed to them on Facebook. With over 200 responses collected in two weeks, Facebook can be used in the future in order to collect many responses in a short period of time.

Managerial implications. This study has significant managerial implications. Findings from this study give marketers a greater understanding of how the color that they select for their brand's logo influences the perceptions that consumers' have of their brand. If consumers are using color to determine brand personality then marketers will need to make sure their color selection is associated with the brand personality they are trying to convey. Further studies should research if these findings hold true when applied to other brand elements such as packaging, advertising, and store environments.

Results from hypothesis one and two give marketers a better understanding of how colors can be used in marketing brands and products. When using the color blue in a logo marketers should keep in mind that consumers associate blue with trustworthy, therefore it should be used for companies that are trying to portray a trustworthy image. When examining brand personality blue best fit in the competence dimension which indicates that consumers would find the brand that uses blue in their logo to be reliable and secure. Examples of businesses that should use blue in their logo are hospitals, insurance companies, banking and finance, and attorneys.

Green was found to be associated with wholesome and fit into the dimension of sincerity which suggests that consumers find companies that use green to be down-toearth, honest, and family-oriented. Green could be used to represent companies that are eco-friendly and healthy. Green could also be used for non-profit organizations.

Pink should be used for trendy apparel companies and businesses that offer entertainment products as consumers see the color pink as being fun. Pink also fit into the brand personality dimension of excitement which indicates a cool, young, and imaginative brand. Pink was also found to be inappropriate for masculine brands, so marketers should avoid using pink for brands that are targeted at men.

Red can be used for companies who provide services to their clients such as salons and health care providers since red was found to be associated with passion. Clients want to feel as if the service provider is passionate about making sure they are well taken care of. The color red was found to fit into the brand personality dimension of competence which means that red can also be used for businesses that want to be seen as reliable, hardworking, and successful.

Yellow was found to fit into the brand personality dimension of excitement indicating a brand that is cool, unique, and exciting. Yellow was also associated with energetic, so it could be used for the sporting industry in the logos of equipment, apparel, and even energy drinks.

Purple was found to be associated with being playful and fit into the brand personality dimension of excitement. However, it is recommended that marketers be careful when choosing to use purple in brand logos. Our results indicated that purple fit into many brand personality dimensions such as sincerity, excitement, and competence.

Furthermore, it has been suggested that American consumers do not have strong associations with this color. Turner (2006) suggests that purple is a European color and therefore results would differ if the sample was to include more European participants.

Results from this study demonstrate the importance of marketers using colors in a logo that will evoke the proper associations for their brand. As they market a product, they will also want to insure that all brand elements (e.g celebrity endorsers, logo font and style, packaging, slogan) remain congruent with the color that is being used in the logo. An example would be that if they are marketing a sports drink with a yellow logo they will want to make sure that their commercials are high energy and offer a high level of excitement such as featuring a basketball player shooting the game winning shot.

When comparing the difference in results between men and women it was found that both genders had similar responses for hypothesis one and two, for example $52 \%$ of men found blue to be associated with trustworthy and $47 \%$ of women had the same association. The only large different between the two gender groups was found when examining the results of hypothesis three as $56 \%$ of women found yellow to be highly appropriate for a cheerful and friendly brand and only $27 \%$ of men found it to be highly appropriate. Overall, both genders found yellow to be appropriate for a cheerful and friendly brand.

## Limitations and Future Research

The first limitation of this study was that only individuals that have a Facebook account were included in the sampling. This may be considered by some as a limitation,
but over 300 million users (Laudon \& Traver, 2010) across the globe, Facebook seems to be a convenient way of collecting data from a diverse group.

Another issue that needed to be addressed when interpreting the results is that the survey was distributed in an online environment. Colors may appear differently on different participants' computer screens. The colors used in the survey were carefully selected to minimize any discrepancy across computer screens. Suk \& Irtel (2010) determined that digital color had an equivalent emotional response as non-digital color. In other words, the reaction to the color on a computer screen should elicit a similar response as if the survey was taken with pencil and paper.

Future Research Suggestions. Future research should include a much larger and more global sample to test if the results of this study can be applied to other cultures that may hold different associations. It was the intention of this study to examine how different religious and ethnic groups would affect the results, but it was not possible to address this issue within this study because there were an insignificant number of respondents who were from outside the United States, making it statistically impossible to analyze the difference between these groups. Future research should survey groups in a variety of countries in order to insure that they represent all groups. As the associative learning theory suggests, color associations are learned so it would be interesting to determine if those associations are affected by geographic location, religious affiliation, and ethnic group identity.

Lastly, it would be interesting to see if there is any difference in the way consumer's perceive color in different contexts such as on TV and in print. Future
research could expand on this study by presenting the logos in a variety of contexts and see if the way consumer's perceive the brand personality differs.

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## APPENDIX A

## Brand Personality: Consumer's Perceptions of Color Used in Brand Logos

## Consent Form

1.) The primary goal of this project is to explore perceptions of color when used in a logo. To address this goal, conventional color associations, brand personality traits, and color appropriateness will be examined.

If you agree to be in this study, you will be asked to fill out a survey concerning your perception of color used in brand logos. The survey will last approximately fifteen, but no more than thirty minutes.

Data will be kept anonymous and will be collected by survey gizmo.
NO risks for participants taking part in this project are expected, It is anticipated that there are NO physical, psychological or sociological risks involved in participating within this study.

This research will benefit society by increasing our understanding of consumers' perceptions of color when used in a brand logo. The study will help firms to realize that they should be aware that consumers are affected by the color used in their brand's logo. By signing this consent form, you agree that you understand the procedures and any risks and benefits involved in this research. You are free to refuse to participate or to withdraw your consent to participate in this research at any time without penalty or prejudice; your participation is entirely voluntary. Your privacy will be protected because you will not be identified by name as a participant in this project.

The University of Missouri, Columbia Institutional Review Board, which ensures that research involving people follows federal regulations, has approved the research and this consent form. Questions regarding your rights can be answered by calling 573 882-9585. Questions regarding the research itself will be answered Jessica Ridgway (847-338-2159, jlrrzf@mail.mizzou.edu). Any new information that develops during the project will be provided to you if the information might affect your willingness to continue participation in the project.

I consent to participate in this study.
[] Yes
[] No

Welcome

Thank for agreeing to participant in this study. The following study is examining consumer's perceptions of color used in brand logos. Please use the logos provided for each question to answer the question. If at any point you no longer to participate in the survey you may quit, this is completely optional. Please take your time and read each question carefully.
2.) Are you at least 18 years old?
[] Yes
[] No

## Color Vision Test



Color Vision Test (Kalmus, 1965)
3.) What shape do you see?
[] Square
[] Star
[] Circle

Please select from the list provided which association that you think best fits the color in the logo shown.

4.) Please select the association that you think best fits the color in the logo.
[] Trustworthy
[] Warm
[ ] Happy
[] Energetic
[] Playful

Please select from the list provided which association that you think best fits the color in the logo shown.

5.) Please select the association that you think best fits the color in the logo.
[] Protective

## [] Healthy

[ ] Passionate
[] Dynamic

[] Exciting

Please select from the list provided which association that you think best fits the color in the logo shown.

6.) Please select the association that you think best fits the color in the logo.
[] Fun
[] Trustworthy
[] Passionate
[] Prestigious
[ ] Reliable

Please select from the list provided which association that you think best fits the color in the logo shown.

7.) Please select the association that you think best fits the color in the logo.
[] Justice
[] Secure
[] Passionate
[] Energetic
[] Stable

Please select from the list provided which association that you think best fits the color in the logo shown.

8.) Please select the association that you think best fits the color in the logo.
[] Energetic
[] Trustworthy
[] Secure
[] Healthy
[] Protective

Please select from the list provided which association that you think best fits the color in the logo shown.

9.) Please select the association that you think best fits the color in the logo.
[] Secure
[] Playful
[] Justice
[] Stable
[] Fun

Please select personality traits that you feel would best represent the brand.

10.) If this logo represented a brand, please select personality traits that you feel would best represent the brand. Check all that apply.

| [] Down-to-earth | [] Friendly | [] Up-to-date |
| :---: | :---: | :---: |
| [] Unique | [] Feminine | [ ] Contemporary |
| [] Small-town | [] Young | [ ] Reliable |
| [] Family- Oriented | [] Masculine | [ ] Hard working |
| [ ] Independent | [ ] Imaginative | [] Technical |
| [ ] Honest | [] Original | [] Corporate |
| [] Secure | [ ] Cheerful | [] Leader |
| [] Sincere | [] Sentimental | [] Confident |
| [] Intelligent | [] Daring | [] Upper class |
| [] Real | [] Trendy | [ ] Good looking |
| [] Successful | [] Exciting | [] Charming |
| [] Wholesome | [] Spirited | [] Smooth |
| [] Glamorous | [] Cool | [] Outdoorsy |

[ ] Western
[ ] Rugged
[] Tough

Please select personality traits that you feel would best represent the brand.

11.) If this logo represented a brand, please select personality traits that you feel would best represent the brand. Check all that apply.

| [] Down-to-earth | [ ] Wholesome | [] Trendy |
| :---: | :---: | :---: |
| [] Unique | [] Glamorous | [] Exciting |
| [] Small-town | [ ] Friendly | [] Spirited |
| [] Family- Oriented | [] Feminine | [] Cool |
| [] Independent | [] Young | [] Up-to-date |
| [] Honest | [] Masculine | [ ] Contemporary |
| [] Secure | [ ] Imaginative | [ ] Reliable |
| [] Sincere | [] Original | [] Hard working |
| [] Intelligent | [ ] Cheerful | [] Technical |
| [] Real | [ ] Sentimental | [] Corporate |
| [] Successful | [] Daring | [] Leader |


| [ ] Confident | [] Charming | [] Western |
| :--- | :--- | :---: |
| [ ] Upper class | [ ] Smooth | [ ] Rugged |
| [ ] Good looking | [] Outdoorsy | [] Tough |

Please select personality traits that you feel would best represent the brand.

12.) If this logo represented a brand, please select personality traits that you feel would best represent the brand. Check all that apply.

| [] Down-to-earth | [ ] Real | [ ] Original |
| :--- | :--- | :--- |
| [ ] Unique | [ ] Successful | [ ] Cheerful |
| [] Small-town | [ ] Wholesome | [ ] Sentimental |
| [] Family- Oriented | [ ] Glamorous | [ ] Daring |
| [ ] Independent | [ ] Friendly | [ ] Trendy |
| [ ] Honest | [ ] Feminine | [ ] Exciting |
| [] Secure | [ ] Young | [ ] Spirited |
| [ ] Sincere | [ ] Masculine | [ ] Cool |
| [ ] Intelligent | [ ] Imaginative | [] Up-to-date |


| [ ] Contemporary | [ ] Leader | [ ] Smooth |
| :--- | :--- | :--- |
| [ ] Reliable | [ ] Confident | [ ] Outdoorsy |
| [ ] Hard working | [] Upper class | [] Western |
| [] Technical | [] Good looking | [ ] Rugged |
| [ ] Corporate | [ ] Charming | [] Tough |

Please select personality traits that you feel would best represent the brand.

13.) If this logo represented a brand, please select personality traits that you feel would best represent the brand. Check all that apply.
[] Down-to-earth
[ ] Intelligent
[] Masculine
[] Unique
[ ] Real
[ ] Imaginative
[] Small-town
[] Successful
[] Original
[] Family- Oriented
[] Wholesome
[ ] Cheerful
[] Independent
[ ] Glamorous
[ ] Sentimental
[] Honest
[] Friendly
[ ] Daring
[] Secure
[] Feminine
[] Trendy
[] Sincere
[] Young
[] Exciting

| [ ] Spirited | [ ] Technical | [] Charming |
| :--- | :--- | :--- |
| [ ] Cool | [ ] Corporate | [] Smooth |
| [] Up-to-date | [] Leader | [] Outdoorsy |
| [] Contemporary | [ ] Confident | [] Western |
| [] Reliable | [ ] Upper class | [] Rugged |
| [ ] Hard working | [ ] Good looking | [] Tough |

Please select personality traits that you feel would best represent the brand.

14.) If this logo represented a brand, please select personality traits that you feel would best represent the brand. Check all that apply.

| [ ] Down-to-earth | [] Secure | [ ] Glamorous |
| :--- | :--- | :--- |
| [ ] Unique | [] Sincere | [ ] Friendly |
| [ ] Small-town | [] Intelligent | [ ] Feminine |
| [ ] Family- Oriented | [] Real | [] Young |
| [ ] Independent | [] Successful | [ ] Masculine |
| [ ] Honest | [ ] Wholesome | [ ] Imaginative |


| [] Original | [ ] Up-to-date | [] Upper class |
| :--- | :--- | :--- |
| [ ] Cheerful | [ ] Contemporary | [] Good looking |
| [] Sentimental | [] Reliable | [] Charming |
| [ ] Daring | [ ] Hard working | [] Smooth |
| [ ] Trendy | [ ] Technical | [] Outdoorsy |
| [] Exciting | [ ] Corporate | [] Western |
| [] Spirited | [] Leader | [] Rugged |
| [ ] Cool | [ ] Confident | [] Tough |

Please select personality traits that you feel would best represent the brand.

15.) If this logo represented a brand, please select personality traits that you feel would best represent the brand. Check all that apply.
[ ] Down-to-earth
[ ] Independent
[ ] Intelligent
[] Unique
[ ] Honest
[ ] Real
[] Small-town
[] Secure
[ ] Successful
[ ] Family- Oriented
[ ] Sincere
[ ] Wholesome

| [ ] Glamorous | [] Trendy | [] Leader |
| :---: | :---: | :---: |
| [] Friendly | [] Exciting | [] Confident |
| [] Feminine | [] Spirited | [] Upper class |
| [] Young | [] Cool | [] Good looking |
| [] Masculine | [] Up-to-date | [] Charming |
| [ ] Imaginative | [ ] Contemporary | [] Smooth |
| [] Original | [ ] Reliable | [] Outdoorsy |
| [] Cheerful | [ ] Hard working | [] Western |
| [] Sentimental | [] Technical | [] Rugged |
| [] Daring | [] Corporate | [] Tough |

Read the brand statement and then select how appropriate you think the color in the logo is.
16.) Please read the brand statement and then please select how appropriate you think the color in the logo is according to the description provided.


The brand that this logo represents is honest, secure, and reliable.
( ) 1- Highly Inappropriate
() 2
() 3
() 4
() 5
() 6
( ) 7- Highly Appropriate

Read the brand statement and then select how appropriate you think the color in the logo is.
17.) Please read the brand statement and then please select how appropriate you think the color in the logo is according to the description provided.


The brand that this logo represents is down-to-earth, outdoorsy, and wholesome.
( ) 1-Highly Inappropriate
() 2
() 3
( ) 4
() 5
() 6
( ) 7- Highly Appropriate

Read the brand statement and then select how appropriate you think the color in the logo is.
18.) Please read the brand statement and then please select how appropriate you think the color in the logo is according to the description provided.


The brand that this logo represents is intelligent, masculine, and tough.
( ) 1-Highly Inappropriate
( ) 2
() 3
() 4
( ) 5
( ) 6
( ) 7- Highly Appropriate

Read the brand statement and then select how appropriate you think the color in the logo is.
19.) Please read the brand statement and then please select how appropriate you think the color in the logo is according to the description provided.


The brand that this logo represents is exciting, spirited, and daring.
( ) 1-Highly Inappropriate
() 2
( ) 3
() 4
() 5
() 6
( ) 7- Highly Appropriate

Read the brand statement and then select how appropriate you think the color in the logo is.
20.) Please read the brand statement and then please select how appropriate you think the color in the logo is according to the description provided.


The brand that this logo represents is cheerful, friendly, and cool.
( ) 1-Highly Inappropriate
( ) 2
() 3
( ) 4
( ) 5
( ) 6
( ) 7- Highly Appropriate

Read the brand statement and then select how appropriate you think the color in the logo is.
21.) Please read the brand statement and then please select how appropriate you think the color in the logo is according to the description provided.


The brand that this logo represents is daring, tough, and technical.
( ) 1-Highly Inappropriate
( ) 2
( ) 3
() 4
() 5
( ) 6
( ) 7- Highly Appropriate

## New Page

22.) Gender
[] Male
[] Female
23.) What is your age?
[] under 18
[] 18-24
[] 25-34
[ ] 35-54
[] 55+
24.) What is your nationality?
25.) What is the highest level of education you have completed?
[ ] 12th grade or less
[ ] Graduated high school or equivalent
[ ] Some college, no degree
[] Associate degree
[] Bachelor's degree
[ ] Master's Degree
[ ] Doctoral Degree
[ ] Professional Degree (MD, JD)
26.) What is your religious affiliation?
[ ] Protestant Christian
[] Roman Catholic
[] Evangelical Christian
[] Jewish
[] Muslim
[ ] Hindu
[] Buddhist
[] Other
27.) Of which racial group do you consider yourself to be a member?
[ ] Asian/Pacific Islander
[] Black/African-American
[] Caucasian
[] Hispanic
[ ] Native American/Alaska Native
[ ] Other/Multi-Racial
[ ] Decline to Respond
28.) What is your yearly income?
[ ] Less than \$25,000
[ ] $\$ 25,000$ to $\$ 34,999$
[ ] \$35,000 to \$49,999
[ ] \$50,000 to \$74,999
[ ] \$75,000 to \$99,999
[ ] \$100,000 to $\$ 124,999$
[ ] \$125,000 to \$149,999
[ ] \$150,000 or more
29.) What do you consider your home country?
30.) If you consider the USA to be your home country, how long have you lived in the states?
[] 1-2 years
[ ] 3-5 years
[ ] 5-7 years
[ ] 7-10 years
[ ] 11-15 years
[ ] 16-20 years
[] More than 20 years
[] N/A
31.) If you currently live in the USA, which area of the country do you live?
[] Northeast
[] Southeast
[] Midwest
[ ] Northwest
[] Southwest

## Pre-Test Questions

32.) Do you feel that the logo used in this study is reminiscent of any logo you have seen in real life? If so, please name the brand that you feel it resembles.
33.) Did you feel any of the questions were hard to understand? Please explain.
34.) Please list any other comments, questions, or concerns you might have about the survey and its content.

## APPENDIX B

## Brand Personality: Consumer's Perceptions of Color Used in Brand Logos

## Consent Form

1.) The primary goal of this project is to explore perceptions of color when used in a logo. To address this goal, conventional color associations, brand personality traits, and color appropriateness will be examined.

If you agree to be in this study, you will be asked to fill out a survey concerning your perception of color used in brand logos. The survey will last approximately fifteen, but no more than thirty minutes.

Data will be kept anonymous and will be collected by survey gizmo.
NO risks for participants taking part in this project are expected, it is anticipated that there are NO physical, psychological or sociological risks involved in participating within this study.

This research will benefit society by increasing our understanding of consumers' perceptions of color when used in a brand logo. The study will help firms to realize that they should be aware that consumers are affected by the color used in their brand's logo. By signing this consent form, you agree that you understand the procedures and any risks and benefits involved in this research. You are free to refuse to participate or to withdraw your consent to participate in this research at any time without penalty or prejudice; your participation is entirely voluntary. Your privacy will be protected because you will not be identified by name as a participant in this project.

The University of Missouri, Columbia Institutional Review Board, which ensures that research involving people follows federal regulations, has approved the research and this consent form. Questions regarding your rights can be answered by calling 573 882-9585. Questions regarding the research itself will be answered Jessica Ridgway (847-338-2159, jlrrzf@mail.mizzou.edu). Any new information that develops during the project will be provided to you if the information might affect your willingness to continue participation in the project.

I consent to participate in this study.
[] Yes
[] No

## Welcome

Thank for agreeing to participant in this study. The following study is examining consumer's perceptions of color used in brand logos. Please use the logos provided for each question to answer the question. If at any point you no longer to participate in the survey you may quit, this is completely optional. Please take your time and read each question carefully.
2.) Are you at least 18 years old?
[] Yes
[] No

Color Vision Test


Color Vision Test (Kalmus, 1965)
3.) What image do you see in the picture above?

Select only one answer.
[] 3 Triangles
[] 1 Star
[] 2 Squares
[] There is no image in the picture.

Please select from the list provided which association that you think best fits the color in the logo shown.

4.) Please select the association that you think best fits the color in the logo.
[] Trustworthy
[] Warm
[ ] Happy
[] Energetic
[] Playful

Please select from the list provided which association that you think best fits the color in the logo shown.

5.) Please select the association that you think best fits the color in the logo.
[] Protective
[] Healthy
[] Passionate
[] Dynamic
[] Exciting

Please select from the list provided which association that you think best fits the color in the logo shown.

6.) Please select the association that you think best fits the color in the logo.
[] Fun
[] Trustworthy
[] Passionate
[] Prestigious
[ ] Reliable

Please select from the list provided which association that you think best fits the color in the logo shown.

7.) Please select the association that you think best fits the color in the logo.
[] Justice
[] Secure
[] Passionate
[] Energetic
[] Stable

Please select from the list provided which association that you think best fits the color in the logo shown.

8.) Please select the association that you think best fits the color in the logo.
[] Energetic
[] Trustworthy
[] Secure
[] Healthy
[] Protective

Please select from the list provided which association that you think best fits the color in the logo shown.

9.) Please select the association that you think best fits the color in the logo.
[] Secure
[] Playful
[] Justice
[] Stable
[] Fun

Please select personality traits that you feel would best represent the brand.

10.) If this logo represented a brand, please select personality traits that you feel would best represent the brand. Check all that apply.

| [] Down-to-earth | [] Friendly | [] Up-to-date |
| :---: | :---: | :---: |
| [] Unique | [] Feminine | [ ] Contemporary |
| [] Small-town | [] Young | [ ] Reliable |
| [] Family- Oriented | [] Masculine | [ ] Hard working |
| [ ] Independent | [ ] Imaginative | [] Technical |
| [] Honest | [] Original | [] Corporate |
| [] Secure | [ ] Cheerful | [] Leader |
| [] Sincere | [] Sentimental | [] Confident |
| [] Intelligent | [] Daring | [] Upper class |
| [] Real | [] Trendy | [] Good looking |
| [] Successful | [] Exciting | [] Charming |
| [] Wholesome | [] Spirited | [] Smooth |
| [] Glamorous | [] Cool | [] Outdoorsy |

[ ] Western
[ ] Rugged
[] Tough

Please select personality traits that you feel would best represent the brand.

11.) If this logo represented a brand, please select personality traits that you feel would best represent the brand. Check all that apply.

| [] Down-to-earth | [] Wholesome | [] Trendy |
| :---: | :---: | :---: |
| [] Unique | [] Glamorous | [] Exciting |
| [] Small-town | [ ] Friendly | [] Spirited |
| [] Family- Oriented | [] Feminine | [] Cool |
| [] Independent | [] Young | [] Up-to-date |
| [ ] Honest | [] Masculine | [ ] Contemporary |
| [] Secure | [ ] Imaginative | [ ] Reliable |
| [] Sincere | [] Original | [] Hard working |
| [] Intelligent | [ ] Cheerful | [] Technical |
| [] Real | [ ] Sentimental | [ ] Corporate |
| [] Successful | [] Daring | [] Leader |


| [ ] Confident | [] Charming | [] Western |
| :--- | :--- | :---: |
| [ ] Upper class | [ ] Smooth | [ ] Rugged |
| [ ] Good looking | [] Outdoorsy | [] Tough |

Please select personality traits that you feel would best represent the brand.

12.) If this logo represented a brand, please select personality traits that you feel would best represent the brand. Check all that apply.

| [ ] Down-to-earth | [] Real | [ ] Original |
| :--- | :--- | :--- |
| [ ] Unique | [ ] Successful | [ ] Cheerful |
| [ ] Small-town | [] Wholesome | [ ] Sentimental |
| [ ] Family- Oriented | [] Glamorous | [ ] Daring |
| [ ] Independent | [ ] Friendly | [ ] Trendy |
| [ ] Honest | [ ] Feminine | [ ] Exciting |
| [ ] Secure | [ ] Young | [ ] Spirited |
| [ ] Sincere | [ ] Masculine | [ ] Cool |
| [ ] Intelligent | [ ] Imaginative | [ ] Up-to-date |


| [ ] Contemporary | [ ] Leader | [ ] Smooth |
| :--- | :--- | :--- |
| [ ] Reliable | [ ] Confident | [ ] Outdoorsy |
| [ ] Hard working | [] Upper class | [] Western |
| [] Technical | [] Good looking | [] Rugged |
| [ ] Corporate | [ ] Charming | [] Tough |

Please select personality traits that you feel would best represent the brand.

13.) If this logo represented a brand, please select personality traits that you feel would best represent the brand. Check all that apply.
[ ] Down-to-earth
[] Sincere
[ ] Feminine
[] Unique
[ ] Intelligent
[] Young
[] Small-town
[] Real
[ ] Masculine
[ ] Family- Oriented
[ ] Successful
[ ] Imaginative
[ ] Independent
[ ] Wholesome
[] Original
[] Honest
[] Glamorous
[ ] Cheerful
[] Secure
[] Friendly
[] Sentimental

| [ ] Daring | [] Reliable | [] Good looking |
| :--- | :--- | :--- |
| [ ] Trendy | [] Hard working | [] Charming |
| [ ] Exciting | [] Technical | [] Smooth |
| [ ] Spirited | [] Corporate | [] Outdoorsy |
| [ ] Cool | [] Leader | [] Western |
| [ ] Up-to-date | [] Confident | [] Rugged |
| [ ] Contemporary | [] Upper class | [] Tough |

Please select personality traits that you feel would best represent the brand.

14.) If this logo represented a brand, please select personality traits that you feel would best represent the brand. Check all that apply.

| [ ] Down-to-earth | [ ] Honest | [ ] Successful |
| :--- | :--- | :--- |
| [ ] Unique | [] Secure | [ ] Wholesome |
| [ ] Small-town | [ ] Sincere | [ ] Glamorous |
| [ ] Family- Oriented | [ ] Intelligent | [ ] Friendly |
| [ ] Independent | [] Real | [ ] Feminine |


| [] Young | [ ] Spirited | [ ] Confident |
| :---: | :---: | :---: |
| [] Masculine | [] Cool | [] Upper class |
| [ ] Imaginative | [] Up-to-date | [] Good looking |
| [] Original | [ ] Contemporary | [] Charming |
| [ ] Cheerful | [ ] Reliable | [] Smooth |
| [] Sentimental | [ ] Hard working | [] Outdoorsy |
| [] Daring | [] Technical | [] Western |
| [] Trendy | [] Corporate | [] Rugged |
| [] Exciting | [] Leader | [] Tough |

Please select personality traits that you feel would best represent the brand.

15.) If this logo represented a brand, please select personality traits that you feel would best represent the brand. Check all that apply.
[ ] Down-to-earth
[ ] Family- Oriented
[] Secure
[] Unique
[ ] Independent
[] Sincere
[] Small-town
[ ] Honest
[ ] Intelligent

| [] Real | [ ] Sentimental | [] Corporate |
| :---: | :---: | :---: |
| [] Successful | [] Daring | [] Leader |
| [] Wholesome | [ ] Trendy | [] Confident |
| [] Glamorous | [] Exciting | [] Upper class |
| [] Friendly | [] Spirited | [] Good looking |
| [] Feminine | [] Cool | [] Charming |
| [] Young | [ ] Up-to-date | [] Smooth |
| [] Masculine | [ ] Contemporary | [] Outdoorsy |
| [] Imaginative | [ ] Reliable | [] Western |
| [] Original | [ ] Hard working | [] Rugged |
| [ ] Cheerful | [] Technical | [] Tough |

Read the brand statement and then select how appropriate you think the color in the logo is.
16.) Please read the brand statement and then please select how appropriate you think the color in the logo is according to the description provided.


The brand that this logo represents is honest and sincere.
( ) 1-Highly Inappropriate
() 2
( ) 3
() 4
() 5
( ) 6
( ) 7- Highly Appropriate

Read the brand statement and then select how appropriate you think the color in the logo is.
17.) Please read the brand statement and then please select how appropriate you think the color in the logo is according to the description provided.


The brand that this logo represents is down-to-earth and wholesome.
( ) 1-Highly Inappropriate
() 2
( ) 3
() 4
() 5
() 6
( ) 7- Highly Appropriate

Read the brand statement and then select how appropriate you think the color in the logo is.
18.) Please read the brand statement and then please select how appropriate you think the color in the logo is according to the description provided.


The brand that this logo represents is masculine, and tough.
( ) 1-Highly Inappropriate
( ) 2
() 3
() 4
( ) 5
() 6
( ) 7- Highly Appropriate

Read the brand statement and then select how appropriate you think the color in the logo is.
19.) Please read the brand statement and then please select how appropriate you think the color in the logo is according to the description provided.


The brand that this logo represents is exciting and daring.
( ) 1-Highly Inappropriate
() 2
() 3
() 4
( ) 5
() 6
( ) 7- Highly Appropriate

Read the brand statement and then select how appropriate you think the color in the logo is.
20.) Please read the brand statement and then please select how appropriate you think the color in the logo is according to the description provided.


The brand that this logo represents is cheerful and friendly.
( ) 1- Highly Inappropriate
() 2
() 3
() 4
( ) 5
( ) 6
( ) 7- Highly Appropriate

Read the brand statement and then select how appropriate you think the color in the logo is.
21.) Please read the brand statement and then please select how appropriate you think the color in the logo is according to the description provided.


The brand that this logo represents is small-town and sentimental.
( ) 1-Highly Inappropriate
() 2
() 3
( ) 4
() 5
() 6
( ) 7- Highly Appropriate

## Information

22.) Gender
[] Male
[] Female
23.) What is your age?
[] under 18
[] 18-24
[ ] 25-34
[ ] 35-54
[ ] 55+
24.) What is the highest level of education you have completed?
[ ] 12th grade or less
[ ] Graduated high school or equivalent
[] Some college, no degree
[] Associate degree
[ ] Bachelor's degree
[ ] Master's Degree
[ ] Doctoral Degree
[ ] Professional Degree (MD, JD)
25.) What is your religious affiliation?
[ ] Protestant Christian
[ ] Roman Catholic
[] Evangelical Christian
[] Jewish
[] Muslim
[] Hindu
[] Buddhist
[ ] Other
26.) Of which racial group do you consider yourself to be a member?
[] Asian/Pacific Islander
[] Black/African-American
[] Caucasian/White
[] Hispanic
[] Native American/Alaska Native
[ ] Other (please specify; see Question 27)
27.) If the racial group that you identify with was not listed in question 26 please type in your response here.
28.) What is your ethnicity?
29.) What do you consider your home country?
$\qquad$
30.) In what country do you currently live?
31.) If you currently live in the USA, how long have you lived here?
[] 1-2 years
[ ] 3-5 years
[] 5-7 years
[] 7-10 years
[ ] 11-15 years
[ ] 16-20 years
[] More than 20 years
[] N/A
32.) If you currently live in the USA, which area of the country do you live?
[] Northeast
[] Southeast
[] Midwest
[] Northwest
[] Southwest
33.) What is your yearly income?
[ ] Less than \$25,000
[ ] $\$ 25,000$ to $\$ 34,999$
[ ] $\$ 35,000$ to $\$ 49,999$
[ ] \$50,000 to \$74,999
[ ] \$75,000 to \$99,999
[ ] \$100,000 to \$124,999
[ ] \$125,000 to $\$ 149,999$
[ ] \$150,000 or more

Thank You!
Thank you for taking our survey. Your response is very important to us.

## APPENDIX C

Hey Everyone,
I am asking for your help with my thesis research. I am now in the data collection process and need to get as many people as possible to take my survey. The method I am using is snowball sampling, which means that I send the survey to my friends on Facebook and ask you to send it on to your friends on Facebook. I am really trying to get a high response rate so I would really appreciate everyone's participation. All you have to do is type up a short message to your friends asking them to please take the survey and then you simply copy and paste the link provided:
http://www.surveygizmo.com/s3/462825/2548ce8c5747
I am allowing two weeks for data collection so I will be sending you a reminder message next week. If you could please send this out as soon as possible I would greatly appreciate it!

If you have any questions please feel free to message me back!
Thanks for your help!
Jessie

