

Running Title: Self-Monitoring and Color Perception

The Effect of Color in Advertising  
Among Low and High Self-Monitors

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ABSTRACT

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Prior research on self-monitoring has indicated high self-monitors will moderate their behavior based upon their environment, whereas low self-monitors listen to internal cues to make behavioral decisions. Within the consumer research, there appears to be individual differences in product evaluation. Self-monitoring orientation has emerged as one explanation for variance in product assessment. High self-monitors have indicated to be more receptive to image-based advertising. Conversely low-monitors have shown to be drawn to quality-based advertisements. Thus, other attributes such as product design, specifically color, appear to be moderators in product assessment among high and low self-monitors. The current research examined the possible connection between color activation and self-monitoring orientation. Participants completed a self-monitoring and scale and took a survey assessing coconut water assessment, which was either a warm or cool toned framed advertisement. High self-monitors appeared to respond more favorably to warm tones than low self-monitors. Thus, the research provides evidence for a connection between high self-monitoring and a preference toward warm, excitatory tones when evaluating products.

1.1 Introduction

In the age of digital advertising we can examine a pair of heels from Nine West by an interactive picture gallery, or we can microscopically inspect the stitching of a dress from Neiman Marcus. Visual appeal has become more and more important for retailers and advertisers whose customers have a bank of endless visual impressions. In marketing, the

goal is to enhance attention and assist brand recognition (Aslam, 2005). Color is a large factor in the consumer-decision making process. It helps consumers distinguish among products, but also is the first feature that captures the consumer's attention (McGill & Anand, 1989). Another salient feature which contributes to consumer's evaluation of a product is product design and packaging. Since we cannot determine properties such as durability, quality, taste, product design helps consumers to make assumptions about the quality of the product (Bloch, 1995). Prior research has indicated that there are stable individual differences, such as emotional activation (Lee, Amir, & Ariely, 2009) and self-monitoring which influence how individuals assess product packaging (Synder and DeBono, 1985), more specifically color.

### 1.2 Product Packaging

In the way that we often associate more positive characteristics with attractive people, we often assign positive attributes to appealing packaging. Because quality of a product is hard to determine by just looking at it on a shelf, product packaging plays a large role in the perceived potential of the product, and impacts how we assess quality. However, beyond technical purposes, product design can have a communicative function, communicating a variety of information to consumers by way of cognitive and affective responses.

Initial impressions are made at a holistic level, in which the first aspect of processed is the product's form (Blotch, 1995). After holistic processing, atomistic processing can occur only if the product is able to maintain the consumer's attention. Factors such as color and vividness increase the likelihood of maintaining attention (McGill & Anand, 1989). Vividness in particular, evokes imagery, which proves to be a major factor in

attention maintenance (McGill & Anand, 1989). Once attention is gained, specific design features provide appropriate product cues to the consumer for further processing (Bloch, 1995). Design features elude to prestige, sex role appropriateness, durability, quality, and ease of use (Bloch, 1995). With design features processed, a diverse set of product related beliefs can then be recalled through a process known as categorization (Bloch, 1995).

Categorization is the process in which consumers compare the new stimuli to an existing category (Schoormans & Robben, 1996). For instance, high quality, expensive cars would fall under the category of luxury cars. When a consumer is presented with car model a consumer would compare that make to their template of luxury vehicles.

In a study done by Schoormans and Robben (1996), they assessed the attention drawing and evaluative enhancing properties of packaging and their role in categorization, specifically with novel products. Schoormans and Robben defined attention properties as the color, size, motion, and use of complex stimulus of a product. They also categorized product novelty as an attention property, due to an interruption of choice patterns (Schoormans & Robben, 1996). In fact, many marketers implement novelty by modifying a product's appearance to gain greater attention. Schoormans and Robben delineated that evaluative enhancing properties were the degree to which the product fit the consumer's categorical template. Schoormans and Robben believed that the greater the continuity between a product and a consumer's template, the more favorable the responses from consumers. In addition, Schoormans and Robben hypothesized that the more a package deviates from the existing package design in a product, the more attention will be induced. In this study, participants were given two tasks: an evaluation task and a typicality task. In the evaluation task, participants were given a questionnaire with a coffee package, after the questionnaire was complete

participants were told to fetch a new coffee package, and complete another questionnaire. For the typicality task, participants saw all experimental packages, and were asked to indicate the most deviating and last deviating packages as compared to the standard package. In the typicality task, the coffee packages were manipulated by form and color. Color had three levels: standard (red), moderate deviation (part orange/red), and strong deviation (orange). Results indicated that the greater the deviation from the standard product, the more perceived dissimilarity with the original package. Schoormans and Robben also found that attention increases as deviation increases. Thus, these results indicate the positive value of novelty, and the potential benefit of changing a product's packaging.

Building up Schoormans and Robben's work on product cues, a study done by Erikson, Johansson, and Chao (1994) examined how a product's country of origin impacted consumer's perception of that product. A product's country of origin is *image variable*, which is an aspect of a product that is different from its physical characteristics but can also be identified with the product. Image variables include properties such as brand name, symbols, and endorsement by a popular figure (Erikson, Johansson, & Chao, 1994). Image variables play a role in the product related beliefs, and take the form of three different belief systems. A descriptive belief arises from direct experience with the product, whereas informational beliefs derive from outside sources of information such as friends and various forms of advertisements (Erikson, Johansson, Chao, 1984). Specifically, Erikson, Johansson, and Chao examined were inferential beliefs, in which the country of origin effect operates. These beliefs are made through inferences (correct or incorrectly) grounded on past experiences (Erikson, Johansson, Chao, 1984). For instance, a consumer who finds German cars durable, could infer that because a

Mercedes-Benz is a German car, a Mercedes-Benz is a durable car. In their study, participants evaluated four U.S., two German, and four Japanese cars and completed a questionnaire. The questionnaire determined the participant's familiarity with each car, asked their overall rating (1-5) on various attributes such as gas mileage, durability, and workmanship etc. Participants were then asked background questions on which cars they have previously owned. Answers to these questionnaires were compared to *Consumer Reports* and *Car & Driver*. Results indicated that the country of origin effect operated on the premise of beliefs but not attitudes. Therefore image variables impact beliefs through inferences made by consumers (Erikson, Johansson, Chao, 1984).

### 1.3 Color

Along with product packaging and design, color is an important feature, which also contributes to image variables and successful organization of product templates, which is key for categorization (Schoormans & Robben, 1996). To shed light to color's role in product packaging, we must first break down the structure of color. It has been long understood that there are three primary colors (red, blue, green) and their interaction with the three basic attributes (hue, intensity, saturation) is what produces a spectrum of colors (Moster, 2003). These spectrum of colors, can also be divided into secondary and tertiary colors. Secondary colors are green, orange, and purple, which are made through the mixing of two primary colors. Tertiary colors fill in the gaps between secondary and primary colors. Together, primary, secondary, and tertiary colors produce a spectrum of colors, also referred to as the *color wheel*. The color wheel can be divided into two warm and cool colors. Warm colors include hues of red, orange, and yellow, and cool colors consist of green, blue and purple. Warm tones can give the impression of warmth, energy, and vividness (Wexner, 1954). Thus, warm tones take an active role, and are seen as

inviting and stimulating (Na & Suk, 2014). Conversely, cool tones give the impression of a calm, soothing expression (Wexner, 1954). These reactions of calmness, can induce a passive role, producing a more subdued (Na & Suk, 2014). Opposite and similar pairings of colors on the color wheel can create what are known as *color schemes*. Pairing of shades within warm tones, and pairings of shade within cool tones are what is known as *analogous color scheme*. These pairings are seen as harmonious, and pleasing (Wei, Ou, Lou, & Hutchings, 2014). In these scenarios, one color dominates, the second provides support, and the third is an accent color (Wei, Ou, Lou, & Hutchings, 2014). Outside the color wheel, white, black, and grey are recognized as neutral colors.

Prior research has indicated that there are two accepted understandings of how color is perceived. The first is that color signals the brain directly to trigger an affective reaction (Humphrey, 1976). The second understanding is that color preferences are learned over time to have to have affective meanings due to experience and associations (Langebeck, 1913). Within the advertising realm, both concepts are accepted, and are believed to work simultaneously. As a society we have created social constructions of color, and as an individuals we each have different affective experiences in response to color. In a study done by Elliot and Maier (2012), they analyzed whether the color red induced appetitive or aversive behavior. The color red has a diverse set of strong associative qualities. While red has been interpreted as a color of threat, signaling danger, threat, or caution, it has also come to symbolized romance, boldness, and sex (Elliot & Maier, 2012). Participants were assigned to one of two conditions of a 2 (context: dating interview or intelligence interview) X 2 (color: red or blue t-shirt) between-subjects design. In achievement settings, red has been linked to aversive behavior. Additionally, red in romantic settings is linked to appetitive behavior. Before the interview, the subjects



were shown an image of their interviewer, who would be wearing either a blue or red t-shirt. Walking speed, which is an indicator of aversive or appetive behavior, was recorded on the participant's walk to their interview (Elliot & Maier, 2012). Results indicated that the participant's walking speed was slower in response to red, illustrating aversive behavior in achievement settings. Conversely, the participant's walking speed in romantic settings was quicker and illustrated appetitive behavior. Understanding aversive and appetitive behavior in response to advertisements can have implications toward a consumer's purchase decision. However, it is hard to distinguish if this behavior in response to color is based on societal associations or an individual affective reaction.

It is clear that there can be strong societal associations and symbols attached to color. In advertising, a color's associative message serves as a cue for transferring meaning, and novelty to the product or brand (Schmitt & Pan, 1994). Large companies and corporations have capitalized on the associative property of color, and it is why more often than not a company's logo is accompanied by a distinct color. Moser (2003) believes that the level of sophistication of the color, the color's distinctiveness within its category, and its ability to elicit emotional responses are the three factors that determine company's color choices. *Simple* colors are often primary colors (red, yellow, blue). They are vibrant and intense, seen in companies such as McDonalds or Toys "R" Us etc., whereas implementation of sophisticated colors, which are colors of softer tones, can be seen through companies such as Tiffany & Co., Armani, and Jaguar (Aslam, 2005). A color's distinctiveness within its category, also known as *visual branding*, is when a company wishes for their product to stand out from a crowd (Aslam, 2005). A prime example of this is rental car companies, Hertz, Avis, National, and Budget use vibrant colors to distinguish one company from another. Beyond creating distinctiveness, color

has strong associative properties (See Appendix). For instance, the color red represents excitement, youth, and boldness and is implemented by companies such as Lego, Coca-Cola (Cheskin & Masten, 1987). Blue connotes trust, dependability, and strength and can be seen through companies such as IBM, Facebook, Gillette (Cheskin & Masten, 1987). Green suggests tranquility, peace, growth, and health and companies such as Starbucks, Whole Foods, and Land Rover use this to their advantage (Cheskin & Masten, 1987). Orange as a whole represents friendliness, cheerfulness, and confidence (Kuttner, 1960). Yellow can symbolize optimism, clarity, and warmth (Kuttner, 1960).

Building upon Elliot and Maier's (2012) study, Na and Suk (2014) examined affective responses and the emotional characteristics associated with the color white. More specifically, they wished to understand white's position in contrast to warm and cool tones. Societal constructions of white have indicated expressions of purity, gentility, cleanliness, and elegance (Na & Suk, 2014). In the United States, home appliances and car exteriors prove to overwhelmingly favor the color white (Na & Suk, 2014). In their Na and Suk's study, participants were asked to rate twenty emotional adjectives in response to thirteen colors. A seven-point Likert scale was used, seven being very appropriate and one being not appropriate. Ten of the thirteen hues were either warm or cool, consisting of primary, secondary, and tertiary colors. The other three colors were neutral tones (black, grey, and white). Na and Suk grouped what they called six "flamboyant" adjectives, which included adjectives such as: "stand out," impressive, lovely, charming, sensuous, and cute. Results indicated that flamboyant colors were commonly paired with vivid colors, specifically warm colors. Whereas cool and neutral colors most commonly evoked the adjectives elegant and clean.

Wei, Ou, Luo, and Hutchings (2014) further examined warm and cool tones, specifically analogous pairings within warm and cool tones. Analogous pairings within warm and within cool tones, produce what is known as *harmonic colors*. Harmonic colors are defined as two or more colors that are from neighboring areas on the color wheel (Wei et al., 2014) It is through these harmonic color pairings which consumers can establish emotional connections (Wei et al., 2014). In their study, Wei et al., examined fruit juice packaging, specifically seeing whether harmonious colors were indicators of high quality. Participants viewed seven different fruit juices, using four different package colors to create twenty-eight stimuli. Participants were then asked six expectation questions, which included: perceived product quality, the juice's position in the market, freshness, refreshingness, healthiness, and flavor strength. The expectation questions were rated on a five-point scale, 1 being weak, 5 as strong. Results indicated that the fruit juice was perceived of higher quality and freshness when harmonious colors were used. In addition, vivid, warm colors enhanced the perception of newness and freshness.

#### 1.4 Emotional Processing

It is clear that there are strong societal constructions of color, which give affective meaning, and in turn create an affective response (Elliot &Maier). Emotional systems impact the transient purchasing decisions, which are often made on a case-by-case basis. For instance, consumers will for instance evaluate a blender differently than they might for ski pants. Although we evaluate products very differently, there can be consistency in our individual preferences. One explanation for individual differences is whether the emotional system is activated while making their purchasing decision. Prior research has indicated that affective states can influence an individual's attitude (Petty, Cacioppo, 1986). Thus, within the consumer context, placing an individual in a positive or negative

mood can be a mechanism for persuasion (Petty, Cacioppo, 1986). However, there is reason to believe that it is not specific emotion that influences the purchasing decision, but the level of activation that accompanies the emotion (Rucker, Petty, 2004). Positive emotions as well as some negative emotions (i.e. anger) produce heightened arousal states (Rucker, Petty, 2004). On the other hand, emotions such as boredom, content, sadness, and calmness are accompanied by a state of deactivation (Rucker, Petty, 2004). There is also evidence that consumers when in a state of arousal show a preference for action promotion behavior after interpreting an advertisement (Rucker, Petty, 2004). In an experiment done by Rucker and Petty (2004), they wished to evaluate whether anger, an emotion that can evoke arousal, or sadness, or can induce deactivation, influence the way individuals evaluate advertisements. Participants began by either reading an article that induced anger or sadness. The anger reading covered incidences of protests of the United States in the Middle East, and the sadness reading illustrated the effects of a natural disaster on a village in Africa. After the readings the participants were then given an emotion check to determine the participants' current levels of sadness or anger. Participants then were shown two advertisements of vacation options in Florida. The advertisements were manipulated to either demonstrate a passive or active framed resort. The results indicated anger, the emotion associated with activation and arousal induced a preference for an active-framed resort. In addition, those that read the sad article were more likely to choose the passive-framed resort (Rucker, Petty, 2004). These findings strongly indicate that emotion can be a mediating factor in the way that individuals evaluate advertisements. From a marketing standpoint, this concept could allow advertisements to be tailored to resonate with the activity level. For instance, if a marketer were to expect their audience to be angry following a specific television show,

it might be beneficial incorporate action related activities in their advertisement. The same could be said for an advertisement following a sad television show, where a strategic advertising approach would be to integrate images of relaxation.

Building upon Rucker and Petty (2004), in a study done by Lee, Amir, and Ariely (2009) they found that consumers differ in the degree to which they rely on cognitive or emotional systems (Lee, Amir, & Ariely, 2009). In this research, Lee, Amir, and Ariely (2009) signified that consumers will have a primary mode of evaluating advertisements, and that those who rely on emotional responses during decision-making engage in better preference consistency across purchase decisions. Lee, Amir, and Ariely began their study by determining the participant's preference structure, deciphering if the subject is more emotionally or cognitively inclined. Researchers then used images that activated either the emotional system (metaphors, narratives, and concrete images) or one's cognitive system (abstract symbols, numbers, and words). Results illustrated that participants that engaged in emotional processing took less time answering questions and committed less preference violations (Lee, Amir, & Ariely, 2009). From an evolutionary standpoint, emotional systems evolved to make quick, accurate evaluations, to coordinate resources to make a decision suitable toward an individual's goals (Lee, Amir, & Ariely, 2009). Thus, this notion could hold true in purchase-making decision, and that quick, holistic judgements might be more in line with an individual's preference structure. Lee, Amir, & Ariely (2009, Study 2) expanded upon this concept and in a second study they manipulated the degree of color in their advertisements, they wished to find whether the cognitive or emotional systems responded differently. They found that participants who were presented with stimuli richer in affect made less preference errors. Thus, this

research also indicates that by changing the vividness of the stimuli could increase emotional processing fluency.

### 1.5 Self-Monitoring

Perhaps differences in emotional processing are a representation of different evaluative strategies among low and high self-monitors. Self-monitoring was first introduced by Mark Snyder (1974), illustrating that individual differences could be the underlying factor in predicting behavior from attitude (Snyder & Monson, 1974). Snyder (1974) suggested that when a person is monitoring their behavior they are observing both their social environment and adjusting their external behavior. Differences in self-monitoring illustrate the degree to which that individual relies on situational or dispositional factors (Snyder & Monson 1975). Snyder's concept of self-monitoring suggests that a person can be categorized as either a low or high self-monitor according to their scores of Snyder's (1974) Self Monitoring scale (Snyder & Gangetad, 1986). High self-monitors strive to be the person that their social environment calls upon, and will adjust their behavior according to the situation. Low self-monitors tend to be guided by behavioral choices based upon appropriate information from inner sources.

In two studies done by Snyder and DeBono (1985), they investigated whether high or low self-monitors reacted differently to advertisements that either stressed the image associated with the product or expressed the quality of the product. The first study examined high and low self-monitor's attitudes towards image-based and value-based advertisements (Snyder & DeBono, 1985). Participants completed the Self-Monitoring scale (Snyder & Gangestad, 1986) and were then asked their opinion on three products: Canadian Club whisky, Barclay cigarettes, and Irish Moca Mint coffee. For each product there were two versions of the advertisement, of which the advertisements were identical

except for the written slogan associated with the product. One slogan touched on the image associate with the product, and the other slogan attested to the product's quality. After being given each set of advertisements, the participants filled out a 12-item questionnaire. The questionnaire asked questions such as "Which advertisement appeals to you more?" and "Which ad do you find more successful?" Synder and DeBono's results indicated that high and low self-monitors have different evaluative reactions to advertisements that are image or quality based. Building upon their first study, Synder and DeBono's second study wished to understand whether the evaluative reactions impacted whether an individual actually purchased the product. Participants were told that they were evaluating a new shampoo that was being introduced to the market. The participants first took a 18-Item Self-Monitoring Inventory Survey (Synder & Gangstead, 1986), and half of the individuals were categorized has high and the other half low self-monitors. After, participants were then randomly assigned to either the image-orientated advertisements or the quality-orientated advertisements. Within each condition the participants were exposed to three advertisements. After each advertisement the participants were exposed to a questionnaire, one of the critical items asking, "How much would you pay for this item?" Results from this study supported their first study, and high self-monitors would go so far as to pay more for the image appeal and the low self-monitors believed that quality was worth paying for (Synder, DeBono, 1985).

A study done by DeBono, Leavitt, and Backus (2003, Study 2) asked participants to sample and rate pleasant-smelling and less pleasant-smelling perfume (or cologne) which was either packaged in a very attractive or less attractive bottle. The results indicated that high self-monitors found the scents that came from the attractive bottle as more appealing, regardless of the actual scent. In contrast, low self-monitors rated the pleasant-

smelling perfume higher and the less pleasant-smelling perfume lower, regardless of the packaging.

The current research uses the Revised Self Monitoring Scale (Synder & Gangestad, 1986) (See Appendix A). High and low self-monitors were categorized by their answers on the self-monitoring scale (Synder & Gangestad, 1986). This 18-item scale asks questions that pertain to one's inner values as well as their social interactions. Items were phrased as the following: "I have trouble changing my behavior to suit different people and different situations" or "I'm not always the person I appear to be" (Snyder & Gangestad, 1986). Participants responded to these items as either *true* or *false*. Each item that was said as true was given one point, and 10 of the items were reverse scored. Participants were categorized as either a high or low self-monitor by a median split.

### 1.6 Overview

The possible explanation for individual differences in product evaluation among high and low self-monitors have led the current research to examine the link between self-monitoring orientation and color perception within advertising. When evaluating products, high self-monitors appear be drawn image-based advertisements rather than quality-oriented advertisements (Synder & DeBono, 1985). High self-monitors, characterized by their perceptiveness to their environment (Synder, 1974), appear to pay more attention and are more persuaded by image variables when assessing products. Conversely, low self-monitors who rely heavily on internal states, have shown to pay stronger attention to quality-based advertisements (Synder & DeBono, 1985). Thus, this leads the current research to wonder whether specific product properties such as color, influence product evaluations among low and high self-monitors. Leading us to wonder perhaps the affective properties associated with different colors, create differences in



emotional processing among low and high self-monitors. Specifically, the current research hypothesizes that there will be a relationship between color perception and self-monitoring orientation, such that high self-monitors will respond more favorably to warm colors, and low self-monitors will respond more favorably to cool tones.

## Method

### *Participants*

Participants were 127 Amazon Mechanical Turk workers who received compensation upon completion of the survey. According to their scores on the 18-item Self-Monitoring Inventory (Synder & Gangestad, 1986), 64 participants were categorized as low self-monitors (scores  $\leq 26$ ) and 63 were categorized as high self-monitors (scores  $\geq 27$ ) by way of a median-split.

### *Procedure*

Amazon Mechanical Turk workers were first given an 18-item Self-Monitoring Inventory (Synder & Gangestad, 1986). Next, the participants were then informed that they would be evaluating different kinds of product packaging employed by digital media techniques. The participants would then evaluate three different kinds of coconut water advertisements. The first of these advertisements was Viva Vita coconut water, which is the target advertisement. The other two advertisements were employed as fillers. Participants were given either one of four advertisements: a red solid, red gradient, green solid, or a green gradient advertisement.

The participant was then asked to rate how relevant each emotion is in describing their reaction to the advertisement. Based on a 1-7 scale, 1 being not relevant at all, and 7 being extremely relevant, the participants evaluated the following emotions: excitement,

calmness, boredom, invigoration, tranquility, enthusiasm, dullness, and thought-provoking. Participants were then asked to evaluate the purchase value and market value of the product and were given prices ranging from \$2.35-\$4.00. Next, participants evaluated their perception of the product, and were asked whether they would you recommend this product to a friend, how their friends might perceive this product, and how nutritious they believe the product to be. To conclude participants were asked how many calories, ranging from 35-95, they believed Viva Vita had. For the other two filler advertisements, the same seven questions were asked.

### Results

To examine the association between self-monitoring categorization and their reaction to warm or cool advertisements, scores on the emotional response ratings (see Table 1) were submitted to a 2 (self-monitoring classification) X2 (ad color) X2 (ad type) between subjects ANOVA. This analysis indicated there was no significant effect for self-monitoring orientation ( $F(1,115)=.002, p=.97$ ), color ( $F(1,115)=.01, p=.94$ ), and ad type ( $F(1,115)=.28, p=.60$ ). In addition, there was no significant effect between self-monitoring orientation and color ( $F(1,115)=.14, p=.71$ ), self-monitoring and ad type ( $F(1,115)=.18, p=.67$ ), and color and ad type ( $F(1,115)=5.13, p=.03$ ). There was also no significant interaction among self-monitoring orientation, color, and ad type ( $F(1,115)=1.58, p=.21$ ). There did not appear to be an interaction between self-monitoring orientation, color of the advertisement, and ad type.

To examine the study's main hypotheses more specifically, separate 2(ad color) X 2 (gradient) ANOVAs were run for high and low self-monitors. For high self-monitors this analysis revealed there was no significant effect of color ( $F(1,57)=.101, p=.752$ ) as well

as ad type ( $F(1,57)=.430, p=.515$ ). However, there was a significant interaction between color and ad type among high self-monitors. Such that high self-monitors had differing emotional ratings in response to warm advertisements for both solid and gradient ad types ( $F(1,57)=5.88, p=.019$ ). In response to the warm advertisements, high self-monitors responded higher the solid ( $M=11.55$ ) versus the gradient ( $M=9.18$ ) ad type. In regard to the cool advertisements, high self-monitors responded higher to the gradient ( $M=11.29$ ) versus the solid ( $M=9.93$ ) ad type. However, for low self-monitors there appeared to be no interaction for color and ad type.

Table 1: Mean Proportion of High Self-Monitor's Response to Ads

Ad Type	Ad Color	
	Red	Green
Solid	11.56	9.93
Gradient	9.18	11.29

Table 2: Mean Proportion of Low Self-Monitor's Response to Ads

Ad Type	Ad Color	
	Red	Green
Solid	10.83	10.14
Gradient	10.25	10.62

## Discussion

Prior research on self-monitoring has indicated that high self-monitors will modify their behavior in response to their social situation, whereas low self-monitors will refer internal cues to maintain a behavior consistent with their internal beliefs (Synder & Gangestad, 1986). The current research examined self-monitoring orientation and how that pertains to individual differences in product evaluation, specifically the attribute of color. Past studies have examined high and low self-monitors evaluation different product designs, and found that high self-monitors are more responsive to image-based advertisements and low-self monitors were more receptive to quality-based advertisements (Synder & DeBono, 1985). However little investigation has taken place on the influence of color in the evaluation of a product among low and high self-monitors before the current research.

In the current research, it was hypothesized that high self-monitors would respond more favorably to warm advertisements as opposed to cool advertisements. Conversely it was hypothesized that low self-monitors would respond more favorably to cool advertisements as opposed to warm advertisements. Since prior research has indicated that the implementation of warm color tones in packaging can signify higher quality (We, Ou, Lou, & Hutchings, 2014), it was hypothesized that high self-monitors would respond more favorably to warm color tones. It was also hypothesized because low self-monitors would evaluate the cool advertisement (green solid, green gradient) more favorably because the associative properties of color green. Green, which has come to symbolize tranquility, growth, health (Cheskin & Masten, 1987), has color properties, which can connote quality-based assumptions. Therefore it can be assumed that low self-monitors might be more drawn to the advertisement highlights quality. Participants completed two

tasks: the 18-Item Self-Monitoring Inventory (Synder & Gangestad, 1986) and a survey which participants answered questions regarding product perception to three coconut water advertisements, the first advertisement being either the red solid, red gradient, green solid, or green gradient version, and the other two were filler advertisements. Results indicated an interaction between advertisement color (red, green) and advertisement type (solid, gradient), specifically among high self-monitors. High self-monitors responded most favorably to the red solid advertisement. In addition, they responded favorably to the green gradient advertisement. This perhaps was due to the unique vividness of the green gradient advertisement, which might have induced also an excitatory response was similar to what the red solid advertisement induced. Thus, the current research's hypotheses were partially supported, and the high self-monitors did, in fact, respond more favorably to the warm advertisement. On the other hand, low self-monitors did not differ in responses across all four advertisements.

The relationship between high self-monitoring orientation and color perception lead the current research to indicate that high self-monitors will respond more favorably to warm colors. Although no prior research has explored the relationship between color perception among low and high self-monitors, previous research has indicated that high self-monitors are greatly impacted by the aesthetic properties of product packaging (Synder & DeBono, 1985).

The association between self-monitoring orientation and color perception highlights the distinct differences among high and low self-monitors in their affective processing in response to products. Prior research has indicated that the societal constructions associated with various colors have produced affective meaning, thus creating an affective response (Humphrey, 1976). Evidence has also indicated that emotional

processing has served a deep emotional purpose to make quick, accurate judgments in order to coordinate resources to suit an individual's goals (Lee, Amir, & Ariely, 2009). Research done by Lee, Amir, & Ariely (2009) that those who had relied on emotional processing systems were consistent and more fluid across their product selection process. Perhaps it is because high self-monitors are greater attuned to environmental cues that they are more perceptive to image variables and societal constructions of color. In turn, high self-monitors might have a greater attentional focus, which could contribute to a more sophisticated product template than low self-monitors. This greater attention focus, specifically attributes such as color, could allow for deeper emotional processing. Research done by Rucker and Petty (2004) found that it was not necessarily emotion that effect product evaluation, but rather it is the levels of emotional activation that impact product perception. As seen by Wei, Ou, Lou, and Hutchings (2014), thoughts on quality and perception were moderated by warm tones and the implementation of harmonic colors. High self-monitors could be drawn to these warm tones because they are excitatory, and increase levels of emotional activation. For instance red which is associated with boldness, youthfulness, sexuality, and love (Cheskin & Masten, 1987), has invigorating characteristics that can elicit higher arousal levels. In addition, harmonic tones could provide a pleasant sensory experience for high self-monitors, which also could increase emotional activation levels. This could provide an explanation in the current study of why high self-monitors also responded more favorably to the harmonic colors found in the green gradient advertisement. Conversely low self-monitors, who are more guided by internal cues, might not have had as great an attentional focus as high self-monitors. Sequentially this could have promoted a not as strong affective response, and a decrease in emotional activation levels. Thus, this could explain why low self-

monitors, across the board, responded no differently among the four target advertisements.

Despite the significant results, the current research does contain limitations. As noted by Schoormans and Robbens (1996), the incorporation of novelty into the construction of a product, can create a greater attentional focus among consumers. My target advertisement, which I designed, could have been perceived as more “novel” as opposed to the two familiar filler coconut brands that were used. Thus, this concept of novelty could have impacted the evaluation of the target advertisement. In addition, coconut water, which is pricer than most soft drinks and is often sold in healthy good stores, could have a hint of luxury. Luxury, which is an image variable (Erikson, Johannsson, Chao, 1994), could have impacted the overall interpretation of the product, such that high self-monitors might have been more likely to have a positive interpretation of coconut water for status purposes. Another limitation was that age and gender were not collected from the Amazon Mechanical Turk workers. This information might have been able to provide greater insight into what kind of participants were completing my study. Specifically if there was a difference in coconut water evaluations among men and women, and I would suspect that woman might rate the advertisements more favorably due to the status implications mentioned earlier.

Future studies on self-monitoring and product evaluation have many directions on which to explore. One interesting arena is marketing, specifically of luxury products. Many marketers that are pitching luxury goods are well aware that their target consumer based relies heavily on image variables (i.e. properties such as status). However, by identifying high self-monitors as a consumer base in in itself, could have enormous implications. By incorporating concepts from the current research such as color

perception and emotional processing habits into high-end advertisements, companies could generate greater attentional focus from their consumers, which could lead to deeper affective processing. In addition, when companies are making pathways toward branding, understanding that high self-monitors might have a greater attenuation to certain colors, specifically warm and harmonious, they could design their products accordingly.

Conversely, if marketing teams are trying to reach low self-monitors it might be helpful to be informed that color plays less of a role in a low self-monitors evaluative process.

Thus, it might be more valuable to allocate your marketing resources to project appearances of quality. To build upon the current study, an exciting avenue might be to manipulate advertisements to be heavily quality based, but use neutral colors which have less societal constructions, but do emit ideas of sophistication (Wei, Ou, Lou, & Hutchings, 2014). It would be interesting to see if there would be an impact on emotional arousal levels in response to neutral colors. Furthermore, neutral colors might not distract low self-monitors from the quality-orientated message, and could impact their evaluative experience.

The current research does suggest that there are differences in emotional processing in regard to advertising among low and high self-monitors. An interesting direction might be to delve deeper into the product categorization process, and the subsequent product templates that appear to be different among low and high self-monitors. This could be done at looking at quickness and fluency of emotional processing toward novel product stimuli. For research done by Schoormans and Robbens (1996), found that individuals with a stronger product template, were quicker to evaluate novel stimuli and make purchase decisions. In addition, it might be interesting to evoke emotional processing by way of video clips or T.V. commercials. It could be suspected that a video clip could



create a greater emotional experience for the consumer and might have a greater impact on the purchase decision, due to a heightened level of emotional arousal.

The current research has shown a stimulating relationship between color perception among high self-monitors. It could be due to a few reasons. One, high self-monitors appear to have a different evaluative strategy than low self-monitors, and appear more skilled at taking holistic impressions products (i.e. image variables) (Erikson, Johannsson, & Chao, 1994). In addition they may have differing categorization strategies than low self-monitors due to a more developed product template, allowing for deeper emotional processing. By acknowledging emotional activation levels rather than emotions themselves, companies can include warm, excitatory stimuli to create an affective experience. It can be recommended that future studies investigate differences in high self-monitors specific evaluative strategies as well as emotional processing in response to advertisements. Through acknowledging color as a prominent design feature, experimentations with different colors, variations in tones, and neutral colors could provide helpful insight into these stark individual differences in product evaluation.

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Appendix A

**18-Item Self-Monitoring Inventory Scale  
(1986 Version)**

Created by Mark Synder & Steve Gangestad

**Personal Reaction Inventory**

**Directions:** The statements below concern your personal reactions to a number of different situations. No two statements are exactly alike, so consider each statement carefully before answering. If a statement is TRUE or MOSTLY TRUE as applied to you, **fill in** the T, and if the statement is FALSE or MOSTLY FALSE as applied to you, **fill in** the F.

- (T) (F) 1. I find it hard to imitate the behavior of other people.
- (T) (F) 2. At parties and social gatherings, I do not attempt to do or say things others will like.
- (T) (F) 3. I can only argue for ideas that I already believe.
- (T) (F) 4. I can make impromptu speeches even on topics about which I have almost no information.
- (T) (F) 5. I guess I put on a show to impress or entertain others.
- (T) (F) 6. I would probably make a good actor or actress.
- (T) (F) 7. In a group of people, I am rarely the center of attention.
- (T) (F) 8. In different situations and with different people, I often act like very different persons.
- (T) (F) 9. I am not particularly good at making other people like me.
- (T) (F) 10. I'm not always the person I appear to be.
- (T) (F) 11. I would not change my opinion (or the way I do things) in order to please someone or win their favor.
- (T) (F) 12. I have considered being an entertainer.
- (T) (F) 13. I have never been good at games like charades or improvisational acting.
- (T) (F) 14. I have trouble changing my behavior to suit different people and different situations.
- (T) (F) 15. At a party, I let others keep the jokes and stories going.
- (T) (F) 16. I feel a bit awkward in public and do not show up quite as well as I should.
- (T) (F) 17. I can look anyone in the eye and tell a lie with a straight face (if for a right end).
- (T) (F) 18. I may deceive people by being friendly when I really dislike them.

Appendix B

**Coconut Water Advertisements**

Target Advertisement Co-Designed by Anne Reardon & Suh Hyun Oh

**1. Advertisements**

**Target Advertisement: Viva Vita (four versions)**

1. Red Solid



2. Green Solid



3. Red Gradient



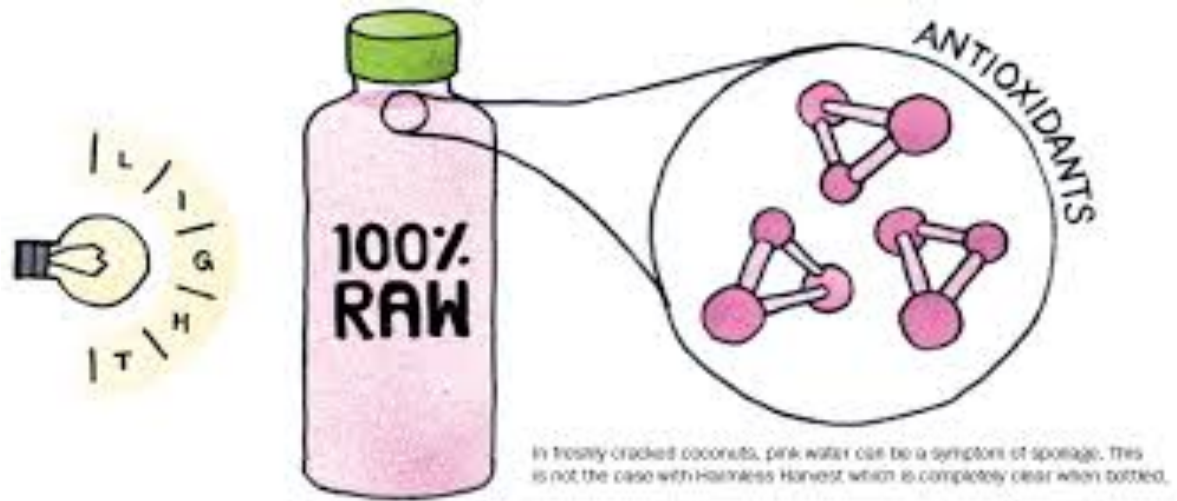
4. Green Gradient



Filler Advertisement #1: Vita Coco



**Filler Advertisement #2: Harmless Harvest**



**2. Response Questions (implemented after each advertisement exposure)**

1. Please indicate how relevant each emotion is in describing your reaction on a 1-7 scale (1 being not relevant at all, 7 as extremely relevant).

	1	2	3	4	5	6	7
excitement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
calmness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
boredom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
invigoration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
tranquility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
enthusiasm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
dullness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
thought-provoking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. How much do you believe is the purchase value?

- \$2.35
- \$2.75
- \$3.00
- \$3.42
- \$4.00

3. What do you believe the worth of this product to be? Taking into account the value that the market might place on this item, as well as your personal preferences.

- \$2.35
- \$2.75
- \$3.00
- \$3.42
- \$4.00

4. Would you recommend this product to a friend?

- yes
- maybe
- no

5 How might your friends perceive this product?

- very well
- well
- somewhat well
- not well

6. How nutritious do you believe this product to be?

- extremely
- very
- somewhat
- not at all

7. How many calories do you think this product has?

35

50

65

80

95