

A Cosmetic Connection: A Guide for Designing Color Cosmetics to Women that are Emotionally Appealing

by

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Abstract

This thesis reports on an interpretive study of women's views towards cosmetic usage and how this relates to their response to various forms of packaging for these products. The focus of the study is on the communicative functions of a product's appearance through packaging. This study examines how various package forms (the packaging is the structure that houses the chemical filler that is applied by the user) of the product is related to their motivations and expectations associated with purchasing cosmetics. Fifty women were studied in a two-part qualitative and quantitative evaluation. The first part of the study examined factors that previous studies have indicated are the primary motivating factors for why women purchase cosmetics. Based on prior studies that identified factors important in product selection by users, the primary factors considered were gender identity (Phillips & McQuarrie, 2009), body image (Moschis, 1976), and product interest (Petermans, Cleempoel, Nuyts, Vanrie, 2009). Various attempts have been made at capturing the emotional connection between consumers and products, but not in the field of cosmetic packaging with respect to psychographic segmentation, the categorization of people with respect to their attitudes, psychology, and behaviors. When purchasing a new cosmetic product, consumers derive their opinions of the filler product based in part upon the packaging. This study evaluates which characteristics women cognitively apply to various forms used for the packaging and presentation of color cosmetic products (any cosmetic product that contains pigment that are used to alter or manipulate the users appearance) and which characteristics motivate women in their cosmetic purchases.

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1. Introduction to the Problem

1.1 Problem statement

Competition in the cosmetic retail market is becoming increasingly difficult due to a combination of the recession and an overly saturated market. The emotional connection women have with cosmetics is what fuels this industry (Elowitz, 2009). Because of these motivating factors, women are willing to spend a large amount of money on cosmetics (Kumar, 2005). Customers often determine their perceived value of a product and make judgments within the first few seconds of viewing it (Schoormans & Robben, 1996). This, combined with the fact that 70% of cosmetic purchases are made on impulse (Meyer, 1988), emphasizes the importance for products to be designed in a manner such that a positive connection is quickly established with customers. The current mass production of cosmetic products, because it does not specifically target separate psychographic segments, results in a disconnect between the consumer and the designer (Lee & Stappers, 2001; Spillers, 2004). For this reason, discovering the connection between these emotions and the product will help the cosmetics industry better understand what draws women to specific products. No studies of this nature have been published that specifically target the cosmetic industry. This study explored the extent to which psychographic segmentation can guide product design in order to create this positive connection with customers. Foundation, eyeshadow, and lipstick were evaluated to learn what assumptions women make about a product according to how it is packaged.

Many cosmetic products are currently designed with similar package forms crossing various brands and product lines. This study examined which emotions were evoked by different forms and designs of cosmetic packaging from various categories of women based on their psychographic makeup, and which emotions were determinants in their product preference. While cosmetics have been traditionally designed for women, in the general field of product design, the concept of designing products specifically for women is relatively new in the last 30 years and tends to not differentiate between different psychographic segments. However, women are individuals and their motivations for purchasing and using cosmetics may be very dissimilar. Knowing what features are most alluring to different psychographic groups of women will help steer the design for products that appeal specifically to each psychographic group. This, combined with demographic correlations, can be used to help guide marketing strategy. Furthermore, enhancing the psychological connection between the woman and a product can make a product more successful by enhancing brand loyalty. The significance of emotion in the user interaction becomes of primary importance due to its sense-making properties (Spillers, 2004). In other words, the emotions created by a product are of primary importance because these emotions are what women use to determine the identity and overall value of the product. According to Malhotra (1981), previous research has suggested that customers prefer certain brands when the brand personality (assigning human characteristics or personalities to a brand to identify it from other brands), parallels the consumer's own identity or the identity they hope to achieve. "From the consumer's point of view, buying cosmetics is a process of matching the attributes of products with the ideal self" (Craik, 1993).

1.2. Need for study

The identification of unique consumer behaviors, generated by a variety of needs and desires, allows a differential segmentation of the market (Wilkie, 1994). The cosmetics industry has not currently developed and implemented design elements based specifically on different psychographic groups of women. Positioning a product in a way that is distinctly attractive to a specific segment that is large enough to have purchasing power will give a company a marketing edge (Cook, Wayne, Keithly, & Connolly, 2003; Statt, 1997).

A study by Fabricant & Gould (1993) categorized women who use cosmetics into four groups based on frequency and quantity of use:

- a. Avoiders (low frequency, low quantity), who were awkward with makeup and wore very little. They sought a natural look.
- b. Creatives (low frequency, high quantity), who wore makeup infrequently, but for social expressiveness. They were comfortable either without makeup or with it.
- c. Habituals (high frequency, low quantity), were uncomfortable without makeup, and typically wanted a natural look.
- d. Devotees (high frequency, high quantity), nearly always wore makeup with the idea of looking good. The idea of not wearing makeup was absurd to them. (p. 537)

This study by Fabricant & Gould (1993) recommended that further studies be done to determine how to better design products that appeal to these categories of women. Their study consisted of only 12 participants. To get a better idea of the validity of this study and to make the

findings more applicable to cosmetic design, a larger population must be studied along with their attitudes toward various product design features.

1.3. Scope and Limit



Figure 1. Lip Stick Filler Product



Figure 2. Cosmetic packages devoid of filler.

According to Statt (1997), both the media promotion of a product and the physical attributes of the product are used to position it for a targeted segment of the population. This study focuses on the product package, and not the fillers (Product fillers consist of the liquid, powder, or cream that is put inside of a package. See Figure 1 & Figure2.).

The study involves women between 21 and 50 years of age, living in the southeastern United States and focuses on foundation, eyeshadow, and lipstick. These three products were selected because they were, in dollar terms, the top three grossing color cosmetic products in 2001 (Kumar, 2005), and because past studies showed these to be the most recognized products in color cosmetics (color cosmetics are any cosmetic product that include pigment for covering or adding color to ones

face or body) (Moschis, 1979). My study confirmed the finding of Moschis.

1.4. Anticipated Outcome

The final result, derived from women with different perceptions and expectations in cosmetic usage, will be a guide to the different cognitive meanings of various product attributes. This will be established based on how women assess products and themselves. The guides will be set to determine how to best design emotionally cognitive products for the mass market, based on psychographic groupings.

2. Literature Review

2.1. Introduction to Cosmetics

2.1.1. History of Cosmetics

Cosmetics date back thousands of years. People have been using cosmetics for various reasons through the ages. Egyptians first used cosmetics because they felt their “physical appearance was directly related to their level of spirituality” (Martell, 2008). Many of the ingredients from that time in history are similar to ones used today. Cosmetics were connected to medical purposes as well. Greeks later adopted cosmetics to enhance their appearance not for the gods, but for their own vanity. The use of cosmetics was then passed on through various ages and cultures, (Martell, 2008).

Foundation also known as skin base began with the purpose of lightening someone’s complexion to make him or her appear lighter skinned. The implications of lighter skin were that you did not work outside and were of higher social stature. The definition of beauty is not consistent, or without discrepancies. Foundations have evolved tremendously and the desired benefits have changed. Now, women often use foundations and tanners to darken their skin with the intent that this will make them more attractive. Cosmetics are directly connected to fashion, and as fashion changes, so do cosmetics. What is in style for one culture or time period may not be in style for another. However, one consistency is our need to feel accepted and to feel comfortable with our appearance.

2.1.2. Cosmetics Today

In times of economic downturn, people tend to modify their product selections to more cost effective versions (Richardson, 2010, p. 19). Because cosmetics tend to be smaller and less expensive purchases in comparison to shoes or electronics, some women see it as them as their “little indulgences”. Lipsticks range in price from \$2 to \$32. Even though Chanel® costs 16 times as much as Covergirl®, the dollar difference of \$30 is relatively small. A woman can buy a high-end \$32 Chanel lipstick even though she may not be able to afford or be willing to spend \$600 for a pair of shoes. In light of a recession in the economy, women will reflect on where their priorities lie and save money in other areas. If appearance is higher on their priority levels, they will still spend sufficient funds on cosmetic products and save in other areas.

In data collected by Choa & Schor (1998) from *Consumer Reports*, it is stated there are no measurable quality differences among lipsticks. However, in a study by Choa & Schor (1998) to determine what factors contribute to women spending more for various cosmetic products, the study found that education coincides with buying higher priced cosmetics in regard to socially visible color cosmetics (most so for lipsticks) because this is the product women use most frequently in public. Choa & Schor (1998) discovered in their study that this link between education level and willingness to spend does not exist for face cleanser, which are not categorized as color cosmetics. For this reason, it is believed that a “snob appeal” of higher priced products is relevant as education rises only for color cosmetics visible in public.

In consumer choice behavior, there is a distinction between the affective and cognitive ways of assessing perceived value (Bagozzi, Mahesh, & Prashanth, 1999; Cacioppo, Petty, & Schumann, 1983; Janiszewski, 1990). The two dimensions of product or brand associations researchers have focused on utilitarian performance (Batra & Ahtola, 1990; Bhat & Reddy, 1998; Hirschman and Holbrook, 1982; Mano & Oliver, 1993; Mittal & Lee, 1989; Voss, Spangenberg, & Grohmann, 2003) described as the traditional notion of the ability for a product to perform a useful function (Apaolaza-Ibanez, Hartmann, Diehl, & Terlutter, 2010; Hirschman & Holbrook, 1982), and hedonic (emotional) performance (Adaval, 2001; Dhar & Wertenbroch, 2000) which is the “emotional experiences that the brand is able to deliver to the consumer” (Apaolaza-Ibanes, et al., 2010, p. 794). Consumers judge these benefits by the appearance of the product, making assumptions on the utilitarian and hedonic benefits they will get from the purchase and use. Apaolaza-Ibanez, et al., (2010) found that the four emotional experiences related to the use of cosmetics were “feeling social and professional success, feeling sexually attractive, feeling of sensorial pleasure, and relief from feelings of dissatisfaction with oneself”. The current study evaluated women to determine which of these four experiences each woman most hopes to achieve from her cosmetics and what features in the products are most successful in communicating these experiences.

2.2. Product User Interactions

2.2.1. Product Relationships

When a design that allows a consumer to identify with a product is implemented, the result will be a co-orientation of that consumer with the product. Moschis (1979) defines co-orientation as a measure of one's social comparison and the extent to which one person is similar to another through various attributes relevant to the object of orientation. He explains that people reference themselves based upon similarities they feel others have with them. They may, in turn, purchase products associated with, or used by, these people with whom they co-orient with. Co-orientation of a product is similar to using a personal association for example, a celebrity spokesperson with certain well known attributes to attract consumers (Schoormans & Robben, 1994). If products are humanized (given characteristics or features that signify human values or qualities) using emotional design techniques, co-orientation can occur quickly through visual stimuli. With 70% of cosmetics purchases being unplanned (Schoormans & Robben, 1994), the reaction women have to products they see on the shelf is of extremely high importance.

The design features that affect the cognitive response of an unplanned in-store purchase are those that show stimuli that have relevance for consumers, producing a faster orientation response (Ratheswar, 1990). Stimulus characteristics that create orienting responses are color, size, motion, the use of complex stimuli and the degree of novelty (Schoormans & Robben, 1994). Each group of women that has a different motivation behind its use of cosmetics will have a different set of stimuli that draws its attention to an item.

A consumer will choose a “typical” product in situations where they are insufficiently motivated to compare brands supports the design of products that have a familiar and typical appearance (Schoormans & Robben, 1996). Thus, if a consumer has no interest in expanding her knowledge of cosmetics or gets no enjoyment from the act of purchasing and use of them, she will be more drawn to a familiar or typical package that require little evaluation or time to process how to use them.

Co-orientation is based on the need to associate oneself to a group (Moschis, 1979). In many purchasing situations, consumers will find key references in the product and packaging that align with their own values or goals and they will desire to associate with this product or product group based upon the co-orientation of these references with their values and or goals. These orientations are based upon comparative appraisal (identification by the consumer with a product due to similarities the consumer finds between the product and himself regardless of whether or not the consumer finds these characteristics favorable or not) or reflected appraisal (identification by the consumer of characteristics or traits in the product that she finds favorable and wishes to identify with even though she herself may not possess those characteristics or traits) (Moschis, 1979).

Characteristics a consumer considers as being favorable in a product are likely to be influenced by how the consumer feels about their own appearance (Guthrie, et al., 2006). The final choice of product may vary between wanting something to reflect their own image or a product that reflects an image of someone or something they find favorable. Craik (1993) explains that “from the consumers point of view, buying cosmetics is a process of matching the

attributes of products with the ideal self”, (as cited in Guthrie, et al., 2006, p. 162). Other research shows that consumers prefer products when the personality of the brand parallels their own or is one they wish to achieve (Guthrie, et al., 2006).

2.2.2. Purchase Motivation

Cosmetics carry social, indulgent, automatic, peer motivated, and sensory motivation factors involved in their use and purchase. Cosmetics are used to fulfill a diverse range of needs. This study examines the emotional response and connection women have with cosmetics, and dissects the force behind her perceived need or want for the product.

It has become increasingly evident that emotional stimuli play a crucial role in product evaluation pertaining to the social, inspirational, cultural, and emotional needs of consumers; as well as judgment of physical functionality (McDonagh, Bruseberg, & Haslan, 2002; McDonagh, & Lebbon, 2000; Xue et al., 2007). To what degree a woman uses cosmetics based on her perceived need or want for the product, determines the seriousness of her purchases. Most cosmetic usage is for social conformance or acceptance. If cosmetics are only used occasionally depending on the event, it can be assumed this person wants to meet the needs of society in only certain occasions. She has tendencies towards being a conditional conformist, and a conditional user. Product categorizations customers make may be made by using goal-oriented distinctions (Schoormans et al., 1996). Judging the needs and expectations a woman has for a product gives insight to the features she looks for most in the product, and the value placed on utilitarian and

hedonic functions of the product. Determining what consumer's value as being important or necessary would be the area to focus on when designing the product (Petermans, et al., 2009).

2.2.3. Identity and Self-image Relevance to Product Use

The consumption of cosmetics is the consequence of a complex pursuit of identity. The desire to display identity, such as social status or lifestyles, shapes the decision to buy products that model appearance (Guthrie, Kin, Jung, 2006), as in the case of cosmetics. Gender (Phillips, 2009), moral, social and sexual identities are key factors in establishing identity therefore assumed to be comparable because these are all identifiable physical traits that establish identity. Cosmetic consumption must be seen as a performance of identity in order to understand the value of relating product to person, and how influential it can prove to be in increasing the perceived value during initial product evaluation.

In this study personality groups were formed primarily based on sexuality, identity, orientation, motivations previously used in psychographic segmentation (Cash & Cash, 1982; McDonagh & Lebbon, 2000; Moschis, 1979; Phillips, 2009; Pomerleau & Pomerleau, 1994; Schoormans & Robben, 1994) or traits previously identified to be key factors involved in how one purchases products that affect their physical appearance (Guthrie, M. et al., 2006).

Phillips' (2009) explains that a woman can either accept the idealized image (of woman) by striving for it, or she can reject the idealized image and define herself in opposition. These gender acceptance variants will influence a woman's acceptance and draw her towards cosmetic

products that embrace her vision of femininity. In the past women have been seen as less intelligent than men, and pretty women have been valued by looks and not intelligence. For this reason, some women try to shy away from embracing feminine qualities because they see them as being weak, unintelligent, or inappropriate. Even though women have come far in the past 50 years, we are still more likely to assume a doctor is a man and a nurse is a woman, or a man is lawyer and a woman is a secretary. Forbes, Haas, & Jung, (2006) found that women who idealize women in a traditional role were more likely to use cosmetics in the pursuit of beauty (as cited in Guthrie, et al., 2006, p. 168). Confidence in gender identity also influences a woman's body image.

The acceptance or rejection of idealized image is too simplistic to fully define consumer tendency, especially in such an emotional area of self-image (Phillips, 2009). This view of feminism is highly influential in the design guides that relate to identity.

Much of the research done on cosmetic usage examines body image as one entity (Guthrie, et al., 2006). Body image is the opinion or feeling one harbors for one's own physical appearance regardless of how others evaluate or view them (Guthrie, et al., 2006). Strong positive relationships have been found between body image, self-esteem, and confidence (Jung & Lebbon, 2003 as cited in Guthrie, et al., 2006, p. 168). Cosmetics are products that alter physical appearance. Individuals may use cosmetics to manage or control their social expressions along with their self-image (Guthrie, et al., 2006). Measuring the amount of social interactions women have along with their body image and self-confidence, allowed this study to see the relationship these factors share with cosmetic use and product choice. Cash & Cash (1982)

studied the relationship of women's cosmetic usage and their body image. The decision to examine the length and routine of cosmetic usage was based on the study by Cash and Cash (1982) finding that women who use cosmetics in a routine pattern were more satisfied with their facial features, compared to those who did not have a consistent pattern of use, and that women who were more judgmental of their appearance had longer cosmetic application times. Women who were the least satisfied with their facial and body image increased the number of products they applied and the number of situations in which they wore makeup (as cited in Guthrie, et al., 2006, p. 165-168).

Guthrie, et al., (2006) concluded that women who are more satisfied with their facial image tend to use more cosmetics, and confidence in cosmetic usage can directly affect a positive facial image and promote usage. This study produced results that are completely different than Cash & Cash (1982). In this study all these behavior patterns are examined to see if one is more consistently true than the other, and what the association to cosmetic preference is.

This study established what different women see as their various needs for cosmetics, including the inner need vs. the social need, the various social situations that affect these needs, and to what extent they influence different women.

2.2.4. Recreational vs. Functional Users

Recreational shoppers in general appreciate in store experiences, while functional shoppers generally just want to get what they need and are not interested in much else (Petermans, Van Cleempoel, Nuyts, & Vanrie, J., 2009). The appeal of novelty in a product also plays a role to determine how a woman shops. If she will be more attracted to a product that connects to a memory and seems familiar, therefore requiring less attention and time in shopping, or a product that stands out from others giving it has a distinct look and sparks interest, this will then determine how to best attract her to a product. If a woman buys makeup as she would laundry detergent and considers it a chore, she will not enjoy exploring new product options. This results in her attraction to something that resembles what she knows as a generic type of makeup. In order to sell a product you must gain the attention of a consumer, however this does not always mean they will purchase the product. The deciding factors and underlying reasons behind a purchase must also be evaluated.

Identifying the willingness a consumer has for learning about products and her curiosity toward cosmetics determines the recreational nature of her usage. Moschis (1976) calls this the “information seeking” behavior. He describes it as the desire to know more about a product regardless of availability. This study hypothesizes that in the cosmetics industry when new applicators or products are created, some women are attracted to learning something new because they find enjoyment in spending time “playing” with makeup. Contrastingly other women will not be attracted to something new if it looks like it will take extra time and may be

difficult to use. This study hypothesizes this will be more accurate if they are not fully comfortable with their current product knowledge already. This will be the difference with design focused on new methods and technology in cosmetics, verses something that seems comfortable and easy without requiring any additional explanation. In this way cosmetic use coincides with fashion, some women always want to know the new trend. There is also a belief that new technology will be better. There is always the notion that newer is better. It is part of our culture in a consumer driven material society.

3. Method

3.1. Data Collection

3.1.1. Respondents Selection

Respondents were selected randomly from a beauty salon, dance studio, and through snowball sampling (asking participants to refer someone else, very similar to a domino effect with participants). An initial survey was given to establish cosmetic interest, confidence levels and the relationship each woman shares with makeup. A total of 64 women between the age of 25 and 61 participated, with an average age of 41. Fourteen of the respondents were omitted from the study because they do not wear makeup or did not complete the survey.

3.1.2. Product Sample Selection

Color cosmetics can be categorized into two groups, background makeup (anything used to hide or conceal a complexion, ex. foundation, concealer) and accent makeup (anything that accentuates features, ex. eyeshadow, blush, eyeliner). These products all generate very different usage patterns and customer expectations, and for this reason, they were studied separately. The cosmetic products focused on in this study were foundation, lipstick, and eye shadow. Foundation is considered background makeup. Eyeshadow is considered accent makeup, and lipstick is the product women are most likely to carry with them, giving it more social implications because of its visibility. Having a strong brand image in lipstick would be more noticed in public because women constantly reapply or touch up lipstick in public. This product also requires the least amount of effort and knowledge in application technique.

All products selected show discernible differences in their package design, so there would be enough variety to allow for the participants to indicate a clear choice (Xue & Yen, 2007). Eyeshadow products with no viewable filler (sometimes referred to as the mass) were omitted from the study. This excluded all prestige eyeshadow packaging from the testing. The reason for this is because upon the initial 17 surveys 15 of the women chose these eyeshadows to be the least functional based on the fact they could not see the product.

In all the foundation packages, the color of the filler product was the lightest that could be found. In all the lipsticks the color of the filler (sometimes referred to as the bullet) was the

nudest and least saturated shade. In all the eyeshadows, the color was the nudest and least saturated shade. So the participant would not be influenced by brand, the brand names were all covered except in cases when it would distract from the design of the container more by having it covered. This was the case when the brand name was large and on a transparent covering. Participants were told to evaluate products assuming that all the filler colors were the same and a match for them. While the products were all made brand ambiguous by covering the brand name, sub branding and product descriptions were left visible. By having the brand name excluded and the filler color variety minimized, a true appraisal could be made.



Figure 3. Foundation Product Samples: Top row, left to right, choices 1 to 5: 1.Almay® Pure Blends®, 2. Covergirl® Aqua®, 3. Covergirl® Clean®, 4. Hard Candy®, 5. Maybelline® Fit® Middle row, left to right, choices 6 to 10: 6. Lancome®, 7. Physicians Formula® Organic Wear®, 8. Neutrogena® Mineral Sheers®, 9. Neutrogena® Glow Sheers®, 10. Maybelline® Age Rewind®. Bottom row, left to right, choices 11-14: 11. Neutrogena® Healthy Skin®, 12. L’Oreal® Magic Smooth®, 13. L’Oreal® Visible Lift®, 14. Maybelline® Mineral Powder®.



Figure 4. Lipstick Product Samples: Top row, left to right, choices 1 to 7: 1. Wet n wild® Wild Shine®, 2. Estee Lauder® Double Wear, 3. Neutrogena® MoistureShine®, 4. Covergil® Nature Luxe™, 5. Rimmel® Lasting Finish, 6. Maybelline® ColorSensational™, 7. L’Oreal® infallible. Bottom row, left to right, choices 8-13: 8. Covergirl® Lip Perfection®, 9. Clinique® Long Last, 10. Revlon® Colorburst™, 11. Rimmel® Moisture Renue, 12. L’Oreal® Colour Rich®, 13. Neutrogena® Moistureshine® Soothing Lips.



Figure 5. Eyeshadow Product Samples: Top row, left to right, choices 1 to 4: 1. Maybelline® Expert Wear®, 2. Physicians Formula® Baked Collection®, 3. Almay® intense i-color™ smoky-i™, 4. Almay® intense i-color™. Middle row, left to right, choices 5 to 10: 5. Covergirl® exact eyelights™, 6. Rimmel® Glam' Eyes, 7. Neutrogena® Nourishing eye quad, 8. Revlon® CustomEyes™, 9. Revlon® Illuminance™. Bottom row, left to right, choices 10-13: 10. Eyestudio by Maybelline®, 11. Covergirl® Eye Enhancers, 12. L'Oréal® Wear Infinite®, 13. L'Oréal® Wear Infinite Studio Secrets™.

3.2. Products Associations Method

This study determined and evaluated the responses evoked by different features of different products upon their initial visual presentation to female cosmetic users. This initial visual interaction between the product and the consumer is referred to by Desmet (2001) as the ‘premo’, or initial pleasant moments prior to actual possession of a product and its possible effect on the purchase decision.

Foundations, eyeshadows and lipsticks were all evaluated based upon their packaging as it would appear in the store. Participants were not permitted to open the products or to use them. Survey questions focused on perceived functionality, aesthetics, social implications and intended purchase. These questions were chosen based upon a study by Rafaeli & Vilnai-Yavetz (2004) that found that sense-making (the process by which people give meaning to experience) of an artifact involves emotion in three ways. The first is Instrumentality (tasks the artifact helps accomplish), the second is Aesthetics (sensory reaction to the artifact), and finally Symbolism (association the artifacts elicits). This is comparable to the utilitarian and hedonic functions referred to earlier (Adaval, 2001; Dhar & Wertenbroch, 2000; Hirschman & Holbrook, 1982).

To make surveys easier for participants to understand questions were worded using the word functionality in place of instrumentality. The participants did not come in contact with the filler product (liquid, powder, or cream substance inside package Figure 1). Women judged the anticipated function based completely on the products appearance. Functional quality of a product refers to the cosmetic container’s ability to hold, display or dispense the filler product.

Symbolism products carried was determined by the words they chose to describe their favorite and least favorite products. In Xue & Yen's (2007) pilot study, Towards Female Preferences in Design, the products were grouped according to key words the participants used to describe each of the products (perfume and cell phones). Having this similarity in groupings when designing for emotion leads me to believe these same groupings will also prove beneficial in my study. Products were judged based on presumed effectiveness based on visual evaluation of design on past experiences. The amount of attention or importance participants gave to function defined them as being a recreational or functional shopper.

By asking why a design is the favorite or least favorite, we determine what "pleasure category" (Demir 2008) the perceived value of the product is from. Demir (2008) cites Desmet & Hekkert (2007) in saying that the methods to measure affective influences of products can be grouped in three pleasure categories .

physio-pleasure (sensory): those received through sensory organs

social-pleasure (meaning): pleasure from social contact

psycho-pleasure (emotional): pleasure gained from accomplishing a task

Another method used in my study was the kansei engineering method. This method dissects the influence of physical qualities products carry, such as 'luxurious', 'elegant', 'cheap', and 'fun'. By requesting participants to supply a one word description for their favorite and least favorite product, they are forced to give their assessment using one word, making it easier

to categorize product pleasing descriptors. This is the most common method of these groupings (Demir, 2008).

A full scale of favorite to least favorite was not conducted because of time constraints, and the importance of the favorite and least favorite are the impulses that carry the most ‘color emotions’ (Ou and Luo, 2009). Ou and Luo (2009) explain color emotions to be different from other emotions typically referred to in psychological studies. These color emotions can be used by someone to describe something, while they carry no emotional arousal or disappointment at all. However, by only using ‘favorite’ and ‘least favorite’ product, it was highly more likely that these products carried an emotion or concern. Having one word as the descriptor for the ‘color emotion’ of each participant can then be assumed to be linked to actual emotion. A product will only elicit an emotion if it matches or mismatches a concern (Desmet, et al., 2001). The products not chosen as favorite or least favorite carried less or no emotional responses or connection.

The quantitative measure of each participant’s self-esteem was established by having each participant score her physical appearance on a 10-point scale with makeup, and without makeup. The difference between the scores signifies the extent to which the participant feels her appearance depends on cosmetics to be favorable. The importance of cosmetics on the participants’ appearance suggested she will invest more time in learning about new products.

Cosmetic application is increasingly rewarding if appearance is important in the way a woman evaluates herself and others (Guthrie, et al., 2006). Having participants rank the importance of men, women, self, colleagues, and employer’s evaluation of their appearance

showed how much they value the judgment of others. Questions from Moschis' idea of "reflected appraisal" were used as a construct of motivations on the part of the consumer to obtain responses from "co-oriented peer" for self-evaluation (Moschis 1979, p. 239). This was used to determine if participants identify with their own image or an image they find favorable. An example of this question used by Moschis is "I often talk about cosmetics I use just to let others know the kind of person I am" (Moschis 1979 p. 242). These questions were scaled, similar to my questions. The results of scoring highly on these types of questions indicated the power this type of woman gives her cosmetics in identifying her, therefore increasing the incentive of a more expensive product because it directly reflects who she is.

Measuring the importance a participant gives to others regarding her appearance and the extent to which they influence her indicates the degree to which the subject considers the opinions of others in her own appearance and product selection. Determining how she makes her product selections influences how to design a product, in that we can focus the design for women who make their decisions based on their own inferences and not the opinions of others.

Determining values identifies where appearances lay in their perceived needs (Desmet, et al., 2001). Knowing where appearance lays in a person's hierarchy of needs is part of a woman's cosmetic personality. These ideals are measured by their standards on physical appearance, and the extent to which they value beauty. Questions relating to how far a participant would go for beauty and what sacrifices she would make to achieve it. Measuring the degree to which a subject spends on cosmetics shows the importance she puts on them. Values were also determined by asking questions relating to a subject's life, such as how much religion plays in her appearance, how she spends her time, and what magazines she reads. The results of these

questions will be helpful in further marketing, determining what channels will be most influential in reaching various groups of women.

3.3. Method to Analyze Data

Questions related to products were analyzed in part through a point of view called ‘empathic design’, these tools are used to understand user needs, aspirations, feelings, and as the name implies to design in empathy with intended users (McDonagh-Phillip & Lebbon, 2000). Empathic design is generally presented as a user-centered design approach that puts emphasis on the emotional aspects of user-product relationships (Crossley 2003; Demir, 2008; Fulton-Sur, 2003; McDonagh-Phillip & Lebbon, 2000).

As stated by Demir (2008), the terminology used to describe information gathering in empathic design includes terms such as feelings, aspirations, and emotional needs of users. Theoretically these concepts are user concerns and attitudes for which conformance or violation may evoke affective and emotional responses towards products (Demir, 2008). Using past studies concerning people’s psychological state and its effect on their product use, the participants in this study were grouped by similarities they shared in how they relate themselves with cosmetics.

4. Data Results

All venues for determining similarities between the psychological similarities in women and the design assumptions for cosmetics were investigated. Participants were grouped based on their confidence levels, how much credit they gave cosmetics in making them attractive, and their overall enjoyment of cosmetics. Women were asked how attractive they were with and without makeup, scored on a scale of 1-10. In some cases women felt they were attractive with makeup and without makeup, this group is the high without makeup and high with makeup group (HH). The second group of women is the low without and high with group (LH). This group has conditional confidence (confidence only when certain criteria are made, or particular measures are taken). These are the women who believe they are unattractive without makeup and become attractive when they apply their makeup. The final category of women is those who believe themselves to be unattractive regardless of their use of makeup. They are the low without and low with group (LL). No woman believed herself to be attractive without makeup, and unattractive only with the use of makeup.

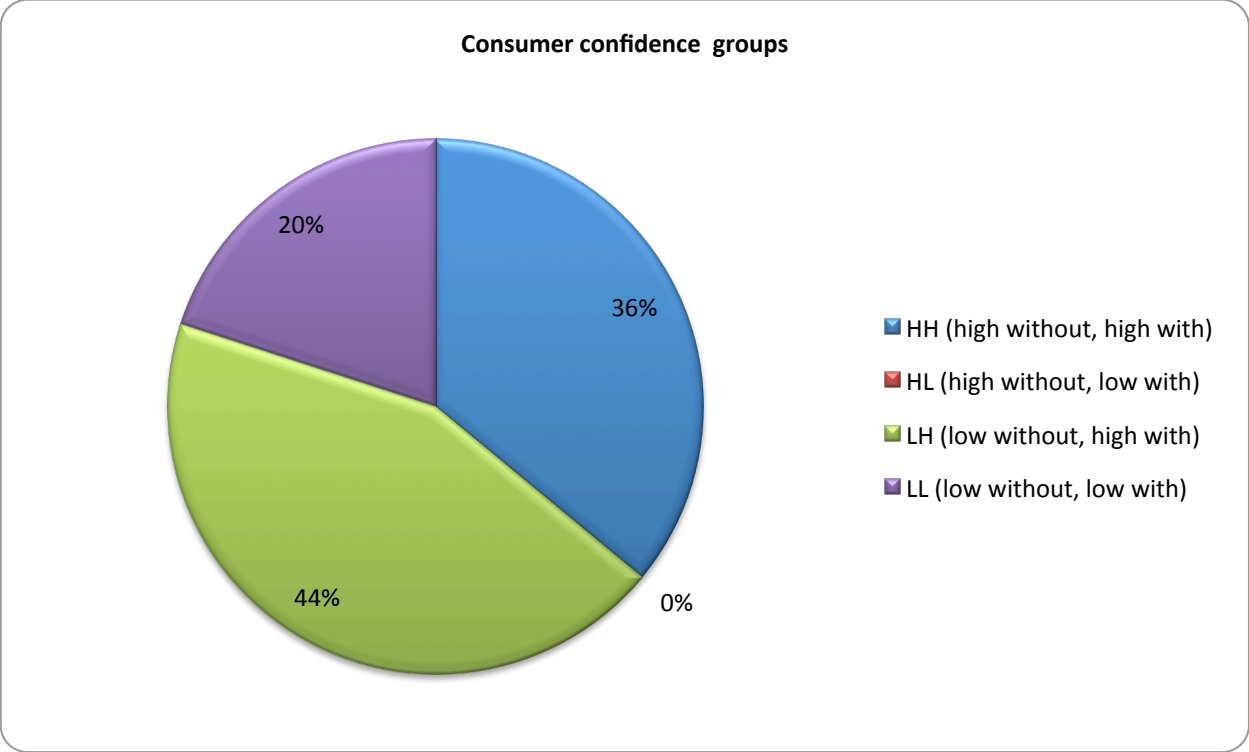


Table 1. Women grouped based on how cosmetics affect their self image

The largest group of the women interviewed believed they were only attractive with makeup (LH). To further understand and segment the market, this study compared the interest levels all three groups had and their enjoyment towards cosmetic products. This was established by the quantitative scores each participant gave to describe the extent she browses the cosmetics department, and how much she enjoys using makeup. Table 2 demonstrates the interest levels of each of these groups. The interest level of the women who believed themselves to be attractive only with makeup on (LH) and the women who believed they were attractive regardless to cosmetic usage (HH) were very similar. While the interest level of the women who had a low self image consistently, regardless of their use of cosmetics (LL) were substantially lower. Similar correlations were found between these groups and their enjoyment of cosmetics (Table 3). Of the women in the LL group who did enjoy using cosmetics the highest they scored was a

6, while the mean score for enjoyment of the women in the HH group was a 10, and the LH was an 8. The group with the strongest differences in the low and high interest was the HH group. They either enjoyed makeup very much (8,9, & 10), or were not interested in it (1,2,3,4). Their use in the product was not derived from feelings of inadequacy.

4.1. Psychographic Groups

The women in the (HH) *high confidence group* use cosmetics for enjoyment and for recreation, or to be fully dressed. They define their self image by their body, or their mood. “I look most beautiful when I’m happy, and in shape”. They feel that cosmetics are part of being completely “put together” in social situations that require a higher level of dress (e. g. work, church, weddings). The HH group does not feel like they “need” cosmetics to be attractive and they can be divided into two groups. Those who do not “need” makeup, so they consider it something they can play around with. They are not concerned with sticking to one product, because they “collect” makeup. This group would be likely to try something new “just for fun”. The other group of HH women are those that feel that makeup does not make them attractive, and they only use it because it is socially accepted that a professional women should wear makeup. They do not play up their girlish side, and have a more functional outlook. They do not look for products that seem more costly, because they do not need makeup to be attractive and the purpose of makeup is only to complete a look.

The *low confidence group* (LL) also do not believe that makeup makes them more attractive. They do not put much effort or time in their looks. They may not enjoy the process of

purchasing or applying makeup because this brings focus to their face. A woman who believes she is beautiful is more inclined to enjoy spending time in front of the mirror, while a woman who does not like her reflection will limit the time as much as possible. Simplicity and ease are her two priorities with products that involve her beauty. Playing up her femininity only solidifies her inadequacy. She has given up on trying to be a beautiful woman, and taken the role of basic female. Girly, fun, and pretty products are not appealing, and are often ridiculed.

The (LH) *conditional confidence group* use cosmetics more out of necessity. They use cosmetics primarily to compensate for their dissatisfaction with their own appearance. Without makeup on this woman feels worried, and anxious. She feels that she “needs” makeup, more than the average person. She judges a product by what will best work to make her attractive. If the package seems to be more expensive, or “nicer” along with having an easy application the value increases. Because she feels the “need” to use makeup in order to be attractive and feel feminine, she is not overly concerned about having it small enough to store. Because of her attachment to makeup she often travels with it. This is where size can cross lines. Where a larger heavier product may seem more expensive or “nicer”, she is unable to travel with it. This consumer may purchase multiple products to fit all of her needs. She expresses her feminine identity through her cosmetics, and is likely to spend more money if she believes the product is better. She validates the expense because she believes she is not attractive without makeup and “needs” it to feel good about herself.

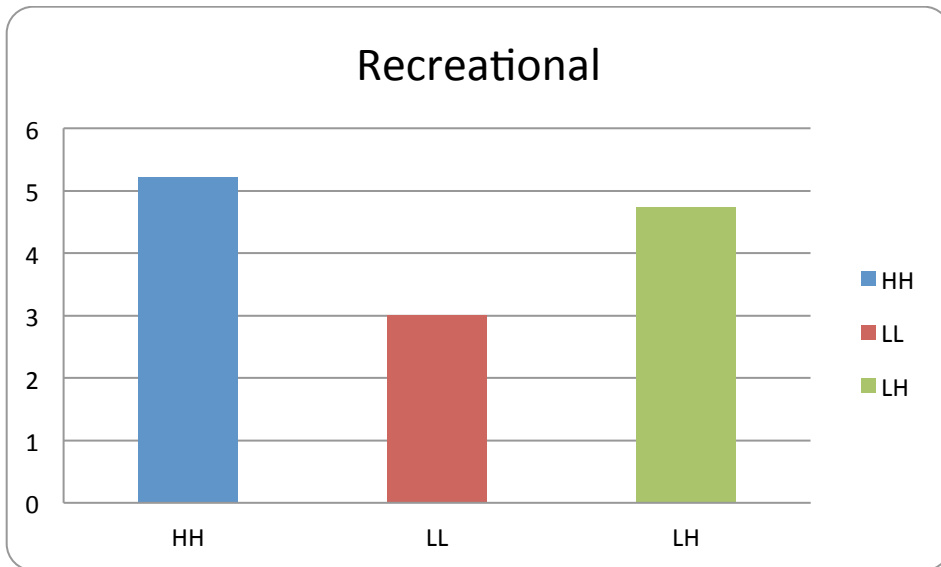


Table 2. Measuring consumer interest levels for each confidence group

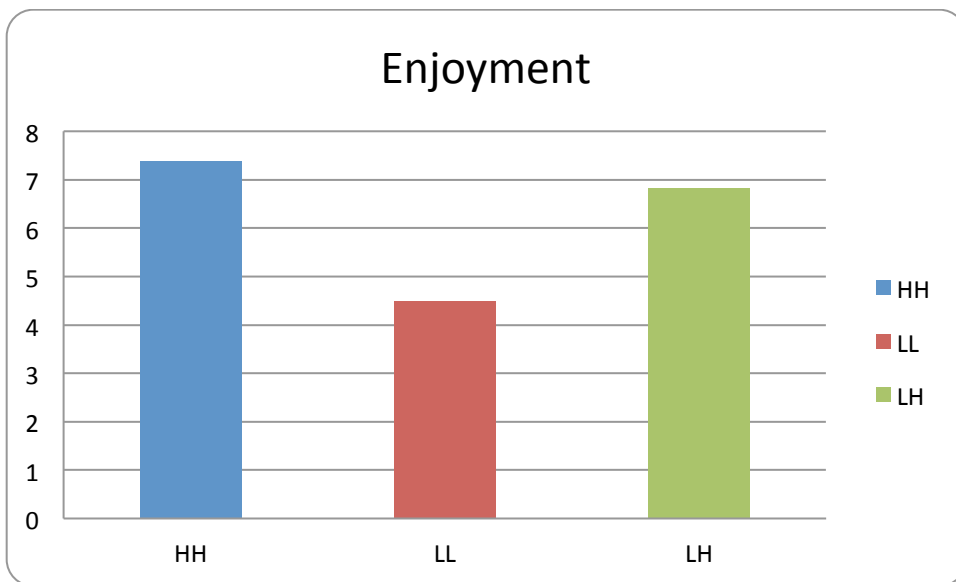


Table 3. Measuring enjoyment levels for each confidence group

Each product had various reactions from participants. Some women did not wear all three products and did not evaluate products they do not purchase. Every confidence group did not have similar reactions in every aspect. However, all the similar reactions were analyzed, along with the reasoning behind them based on the psychological evaluation in the earlier part of the survey. The three cognitive responses affected by product design are beliefs about the product, categorization, and consumer attention (Schoormans et al., 1996). Affective responses are both positive and negative aesthetic responses (Schoormans et al., 1996). This study determined how the appearance of the product creates beliefs about the product categorization, consumer attention, and the effects on expected product use.

The relationship women had with makeup was then compared to the confidence groups. This relationship was determined by having the participants choose one of the following statements to identify them.

- a. Makeup is a toy. Fun to play and learn!
- b. I like makeup, but it is not one of my favorite things.
- c. I use makeup as little as possible either because I am uncomfortable applying it, I feel it is a bother, or I think it can be overdone.
- d. I need to wear makeup to feel or look attractive.

The groups listed above had similar taste in eyeshadow. Eyeshadow is a venture in cosmetics with more area for exploration and creativity in the application. The process of applying eyeshadow can be far more in-depth than other cosmetics. Because the emotions related to cosmetics are so complex, using two levels of psychographic evaluation (confidence and

interest) better construct groups depending on the different benefits the product provides. Foundation has less room for creativity in application and use while eyeshadow can be used more creatively through various applications. These various uses for the products relate with the confidence groups and the various cosmetic relationships, signified by a cosmetics catchphrase. The relationships below are a combination of perceived user need, and user interest.

I love makeup! It is a toy, fun to play and learn! (high need high interest) These women tend to have more of a fun outlook on makeup. They are not frugal when it comes to the cosmetics they buy. They regard their skills and knowledge of cosmetics to be high, and are regarded by their friends as a good source for information on makeup. Their favorite cosmetic products are eyeshadows and eye makeup. These products allow them to be more creative. They shop for makeup recreationally. They buy new products on impulse more often than they let themselves run out. These women shop for eyeshadows like they are professional makeup artists. They prefer products with crisp clean lines, using black modern package styles. They are not as interested in having labels and applicators to help them apply the eyeshadow. This group most likely already has brushes or applicators at home. Coloring the applicator tool to blend with the package and focus the eye on the texture and color of the actual filler is more productive when selling to this individual. Adding simple design details through material layering and textures will create an illusion of a “fancier” product. More luxurious products are more appealing to this user because the makeup she applies to her faces defines who she is. She typically considers herself unattractive prior to wearing makeup. Therefore, she prefers the identity she projects with makeup, and identifies herself with this projection.

I like makeup, but it is not one of my favorite things. (high interest, low need) These women are fairly nonchalant about their makeup. They enjoy it to an extent but do not spend time becoming perfectionist. They think of makeup much more casually than other groups. These women give makeup less credit for determining whether or not they are attractive. They usually feel they are attractive regardless of the cosmetics they use. They are open to new products and fun innovative ways of using them as long as they don't require that much time investment for learning and application. Cosmetics may improve her looks, but her looks are not dependent on them. She does not consider herself an expert in makeup application. She will be curious of brands and new products. Products that seem "fun" and not necessarily professional quality are appealing. She does not often compare products to other brands. She is interested in products that are trendy, stylish and different. Her product enjoyment is high, while her need or seriousness in her product use is minimal.

I use makeup as little as possible either because I am uncomfortable applying it, feel it is a bother, or I think it can be overdone. (low interest, low need) These women also do not believe cosmetics can make someone attractive or not. They use cosmetics to complete their look and fit in. Their motivation stems from a conformist drive and is not an amusement. They have a certain amount of makeup and only get new products to replace old ones. This person looks for accent makeup (specifically eyeshadow) she considers compact and easy. This consumer does not enjoy using or purchasing makeup. The quickest and most basic product that will accomplish the essential function is all she wants. A compact and easy to use product that seems basic and traditional is ideal. Anything with excessive adornments or wrapping is futile and a drawback.

I need to wear makeup to feel or look attractive. (low interest, high need) These women believe they have some kind of physical imperfection that makes them need makeup to look good. They are extremely uncomfortable going out in public without makeup on. They shop for makeup frequently, and not for recreation. They have a poor body image, and their cosmetic consumption is a crutch to help them escape these feelings of inadequacy. They do not enjoy makeup and would prefer a product that can be easily stored. Features that signify easy use, but still high quality are their typical criteria. This shopper defines herself with cosmetics, but identifies herself with the pre-makeup self. She feels she is unattractive before makeup, and that using cosmetics will remedy this. This is different from the user that loves makeup, because that user identifies herself as the person with makeup on and buys products that best fit the post makeup self. While this user feels that she needs makeup, she still does not enjoy them. She is more confident in her knowledge of cosmetics, but scared of being overly loud with her display. She does not wear colors or styles that draw to much attention to her. Similarly she does not like products that draw to much attention to themselves. Compact products with elegant modern style are her ideal criteria.

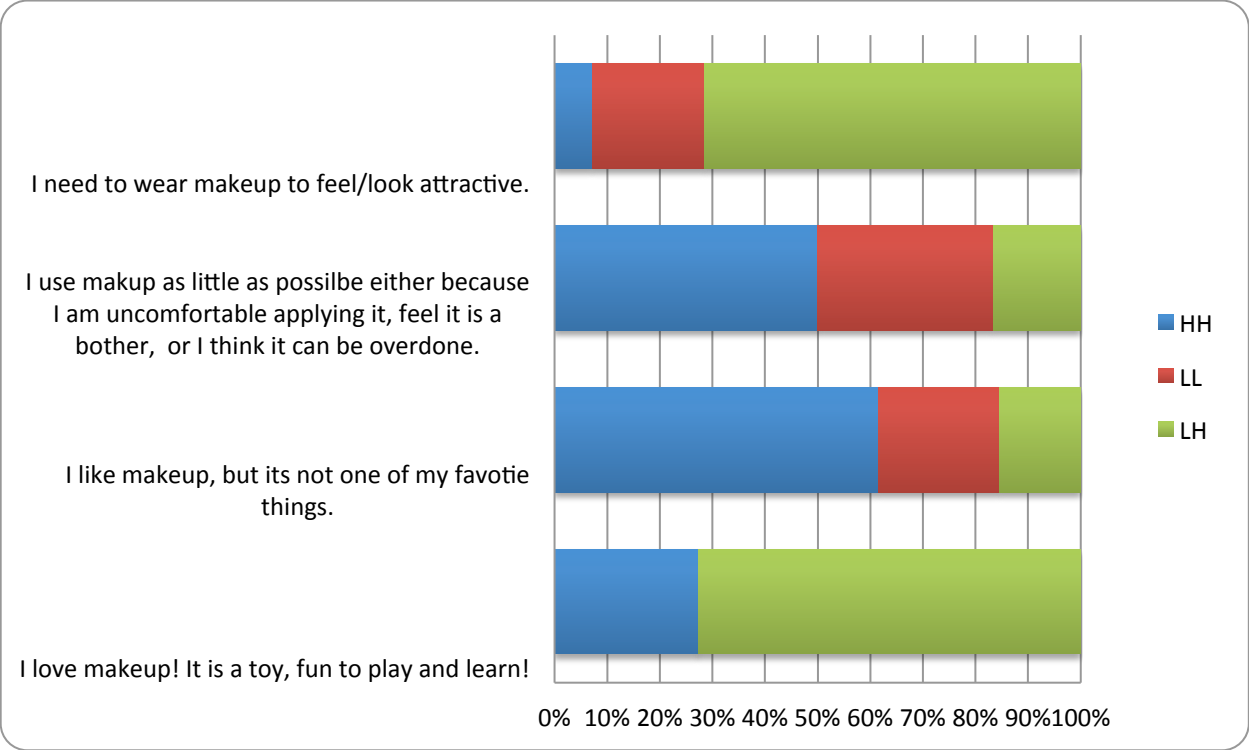


Table 4. Correlation of cosmetic enjoyment and confidence groups

Number of Women	Cosmetic Catch phrase	Rate your confidence in knowledge of makeup	To what extent do you <i>browse</i> the cosmetics department?	How much would you say you like makeup?
11	Makeup is a toy. Fun to play and learn.	8	6.363636364	9.18
13	Makeup is one of the many things I enjoy.	4.85	4	7.15
11	I don't really like makeup. It's more of a chore to fit in.	4.75	3.416666667	4.58
13	I need to wear makeup.	5.93	5.461538462	5.64

Table 6. Average scores among personality constructs: Note. All questions were answered on a 10-point scale

4.2. Foundation Results

When compared to other color cosmetics, foundation is typically purchased under a more serious mindset. Women do not commonly enjoy buying foundation as much as other cosmetic products. This product is a problem solver, and used more to hide than to accentuate. The typical approach to foundation is to match it to an individual, less creativity is used in applying and using this product. Loyalty to a brand is most likely to fall in this category. Changing foundations is considered a “bigger” change than changing a lipstick.

Foundation can come in various forms, typically some form of liquid, powder, or cream. Each form embodies different qualities. Some women choose to carry foundation with them at all times, while others only use in the morning or while dressing. The packages, bottles, or compacts reflect the typical use of the women who buy it. The features that were most highly regarded as signifying a valuable purchase vary between women, typically correlated to their self-confidence in the own appearance.

Tables 7-10 show how each confidence group evaluated the various foundations. The numbers are the amount of votes that a group gave to a particular product. In Table 7, the words listed next to the numbers are the ones chosen by the participants to describe why this product is their favorite. The HH (high confidence) group chose products that they felt were cool, expensive, fancy, girly and interesting, more than anything else. Only one product that was not in a glass bottle was chosen, and it only received one vote. For the high confidence group being able to store the product and transport it does not affect their appreciation for the product. All the

products they chose had a color accent, or detail in the cut of the glass that produce a “shiny” look. New packaging is positive regardless of the application method and will be more successful in this category than in any other. The characteristics most considered negative are products that look cheap, ugly, or boring. The HH group most commonly focuses on the hedonic performances of a product. They are less concerned with storing a product and some even expressed how nice the product would look on the counter.

The LL (low confidence) group primarily accessed foundation based on the utilitarian performance. They are more likely to choose a product that will be easier to store. Simplicity and ease of use are the most important factors in the choice for women who do not consider themselves attractive. They prefer products that are above all easy, this can be credited to the fact that they do not enjoy putting on makeup and “dressing up”. They have a poor self-image and are likely to want to spend the least amount of time giving it attention; they feel that it is a lost cause. Words like clean, natural, simple, and emphasis on the ease of application are all positive traits. The words that they associate most with negative feelings are product features and not feelings. The HH group found ugly, boring, and old to be negative. The LL group makes negative associations on non-functional features the product has, and not feelings the product evokes. Cheap is the most negative characteristic in foundations for all the groups. The LL group does not like products with superfluous packaging. The products that are tall, bulky, and heavy are most often the least favorite for the LL group. This group also believes fancy or ornate decorations are pointless, because applying makeup does not make this consumer feel pretty. This consumer is conscious of how the foundation is going to fit in a purse, or a single makeup bag. She does not leave her products on a vanity. She does not have an excessive amount of

product, and only has what she needs.

The women who believe they are unattractive regardless of cosmetics (LL), are less interested in cosmetics. Cosmetics bring attention to physical appearance. If a woman is insecure of her appearance, she will not enjoy products and activities that celebrate them. This woman is a more functional shopper. She devotes a minimal amount of time to cosmetics. She does not enjoy learning new ways of applying her makeup. She buys only for functional reasons, and does not enjoy shopping for them or the user experience. Products that appear simple and effortless will attract her, because she is not confident in her knowledge of cosmetics. She is not brand loyal, and each time she shops she is likely to change products.



Figure 6. Makeup storage: left to right: Left, single bag makeup storage. Middle, multiple bag makeup storage. Right, counter makeup storage.

Streamlines, minimal text, and products that look familiar are generally more appealing to the LL group. The only times they chose something that is not basic for the simplicity of the design is when the applicator or pump is highlighted, bringing attention to the ease of use. In these situations the reason for the purchase is based on the applicator. The LH group is the most

balanced group. They value function and ease of use second only to expensive or luxurious looking products. They believe that luxurious foundations are better products. Minimal color with features that are accentuated through material shapes, thickness, and design are preferred to set the product apart. A “fancy” bottle does not mean a more “expensive” product. The quality is in weight, and bold simplicity. This group tends to favor products that reflex a more feminine design.

Foundation	High confidence (HH)	Low Confidence (LL)	Conditional Confidence (LH)	Total
Covergirl® Clean	0	3 clean, basic,	1 clean, small, clean lines	4
Maybelline® Fit™	2 sleek, cool	1 simple	3 sleek, expensive, easy, see through bottle and black cap	6
L'Oreal® Magic Smooth™	4 girly, expensive, fancy, interesting, different,	0	1 pretty	5
Maybelline® Age Eraser™	0	2 applicator	2 applicator, interesting, easy	4
Physicians' Formula Organic Wear®	0	1 organic	1 natural, healthy	2
Neutrogena® Healthy Skin™	0	1 sleek, basic	1 clean, easy, compact	2
L'Oreal® Visible Lift	4 fancy, easy, pump, shape, color accent, expensive	2 pump, easy	3 easy, nice, cap would stay on in my purse,	9
Hard Candy®	0	0	0	0
Almay®	1 size, not glass, simple	0	0	1
Covergirl® Aqua™	0	0	0	0
Maybelline® Mineral Powder	0	1 natural	1 sturdy	2
Lancôme®	2 expensive, cool, pretty, wont fall over	0	9 modern, quality, easy, classy, beautiful, flashy	11
Neutrogena® Brush	1 easy	0	1 easy	2
Neutrogena® Squirt	1 easy	1 practical		2
Summary of design preferences for each group	fancy, expensive, color accent or easy	basic, clean, natural, simple	expensive, minimal color, practicality is an issue, easy & expensive, but not necessarily fancy	48

Table 7. Product choice by confidence level: The numbers in bold show the number of women who chose this product. This table displays the similarities in product evaluations for each confidence group.

HH Women	Positive	HH Women	Negative
	4 pretty		6 cheap
	3 Easy		3 ugly
	2 Interesting		3 boring
	2 Expensive		2 messy
	2 color		2 small
	1 Natural		1 looks streaky
	1 clean		1 tacky
	1 fancy		1 can't see the product
	1 Sleek		1 old
	1 Practical		

Table 8. Positive and Negative word selections to describe foundation of HH group.

The HH group has a greater tendency to use descriptors that referred to the aesthetic attributes of the foundations.

LL Women	Positive	LL Women	Negative
	3 easy		3 cheap
	2 natural		2 heavy
	2 clean		2 large
	2 applicator		1 busy
	2 fits well		1 no applicator
	1 classic		1 weird
	1 simple		
	1 organic		
	1 sleek		

Table 9. Positive and Negative word selections to describe foundation of LL group.

The LL group is strictly interested in a basic functional product.

LH Women	Positive	LH Women	Negative
	4 easy		4 cheap
	4 clean		3 ugly
	4 pretty		3 weird
	3 shiny		2 generic
	3 sleek		1 green
	2 sturdy		1 runny
	2 compact		1 dark
	2 applicator		1 short
	2 modern		1 old
	2 flashy		1 boring
	2 expensive		1 Can't get it out
	2 cute		
	1 classy		
	1 interesting		
	1 natural		
	1 soft		

Table 10. Positive and Negative word selections to describe foundation of LH group

The LH group was divided in their criteria for foundations.

Foundation	Evaluation
Covergirl® Clean	All who chose this as the favorite said this was the first to catch their eye. This is a familiar shape that seems comfortable. Some associate it with an older formula.
Maybelline Fit™	This was described as the most functional by 3 of the 6 who picked it. All straight lines. Minimal information. It was not eye catching, and not informative. The simplicity was appealing to low interest users.
L'Oreal® Magic Smooth	People liked the color and the novelty. All the people that chose this one also said it was the first to catch their eye. The large size was unattractive to participants who carry makeup with them. No one chose this to be functional. This product was the least functional.
Maybelline® Age Eraser	Described as most functional by 3. The novelty of the package was more of a turn off to women with lower confidence.
Physicians' Formula Organic Wear®	A lot of people complained that you couldn't see the color.
Neutrogena® Healthy Skin™	Product perceived to be runny. All who believed this to be their favorite said that Neutrogena® Mineral Sheers™ was the most functional.
L'Oreal® Visible Lift	Bottle has color accent on a pump. Visible pump with clean lid. No straight lines. Glass bottle. Color and shape of lid bring attention to the pump. But it was described as easy and convenient.
Hard Candy®	Cheap, ugly. The large box and dark lettering was a turn off. This was the most disliked. Participants believed that the product would be thick.
Almay®	This product did not make women feel like they were buying makeup.
Covergirl® Aqua™	Boring. Generated very little response.
Maybelline® Mineral Powder	Cheap, small, looks medical
Lancôme®	Participants liked that everything was visible, and product looked like a more expensive brand. Thick glass, silver accents, Shape of lid creates a crystal effect on cap. The size was a deterrent for some, and thought to be not functional. Typically these women keep makeup in a bag and not on a vanity or sink.
Neutrogena® Mineral Sheers™	Easy, Portable
Neutrogena® Glow Sheers™	Easy

Table 11. Product Summaries for foundation

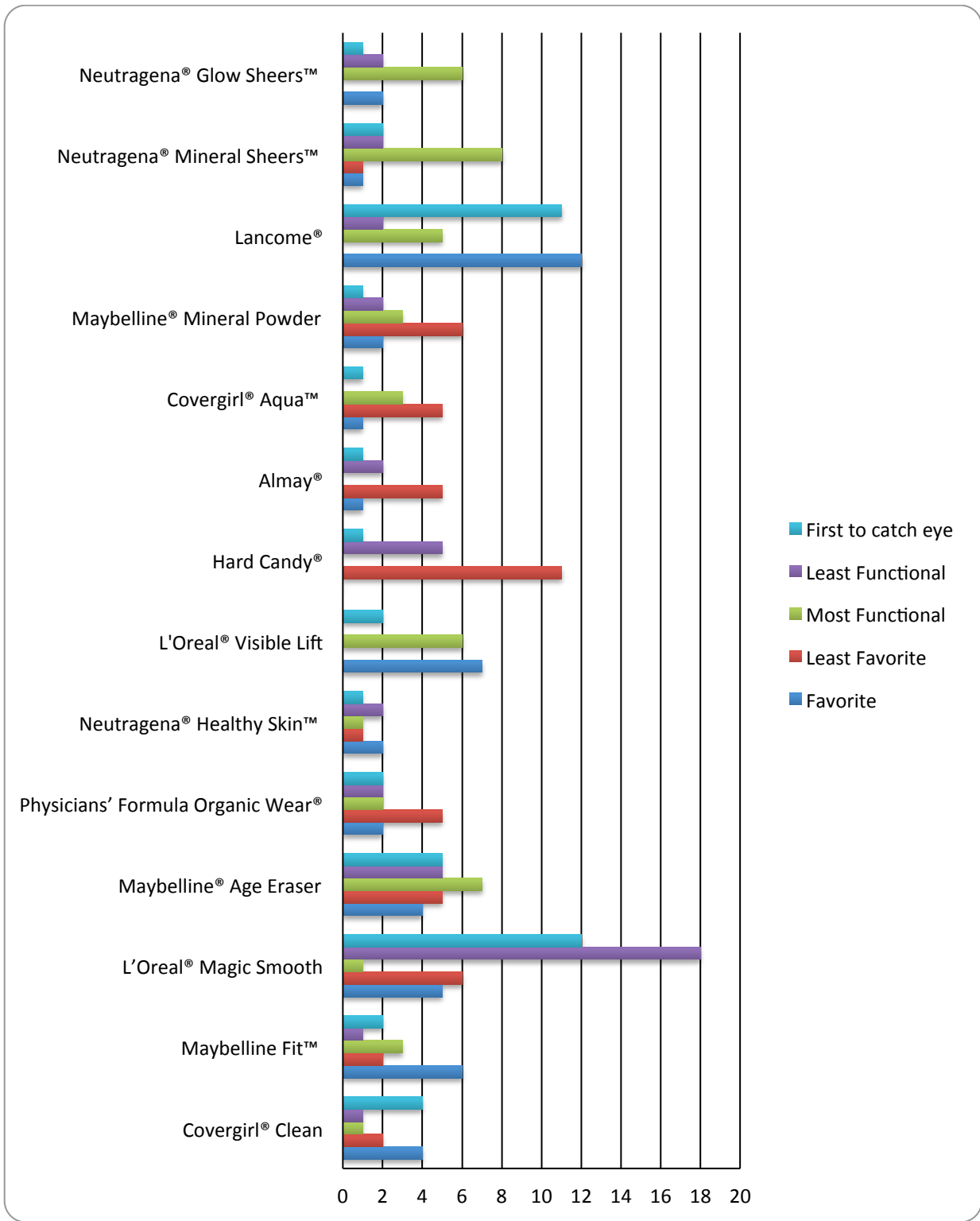


Table 12. Foundation ranking in function, product preference, and eye-catching

4.2.1. Functionality of product in Foundation



Figure 7. Functional products: The dispensers of these products are highlighted, resulting in a higher level of perceived functionality.



Figure 8. Functional products: These products are perceived as functional because of the visible pump on (left), and the storable size and that it is squeezable, (right)

When participants ranked products based on functionality, the dispenser for the filler was the number one thing they looked at, size came second. The products that were assumed to be most functional were products that had the dispenser highlighted (Figure 7). In the Maybelline Instant Age Rewind® (Figure 7 left) the cap is transparent and attention is brought to the applicator with a red accent. In the Neutrogena® Mineral Sheers™ (Figure 7 middle) the transparent cap displays the brush applicator very clearly. The L’Oreal® Visible Lift® (Figure 7 right) also has a clear lid, and the pump is emphasized using blue. This is the only color on the package. When the dispenser is visible and attention is drawn to it, the product is perceived to work better, because the user does not have to figure out how it will work.

4.2.2. Foundation Packaging Perceived as Cheap

Materials influence the perceived value of the product, in the materials used and the way they are displayed and treated. The most common negative response women had towards foundation was they felt the product was cheap. The products that were described as cheap were



Figure 9. Products that integrate paper product: left to right, Almay® Pure Blends™, Hard Candy® Sheer Envy, Physicians Formula® Organic Wear®

those that integrated paper products into the packaging. This was a box, or a sticker that was not transparent and made of paper (Figure 9). Hard Candy was seen as cheap, more than any other product and the least favorite. The script font and overly decorated box of Hard Candy® does not describe the product, or any positive emotions women associate with foundation (fun, modern,

natural, clean, fancy). The products shown in Figure 9 are the top products described using the word “cheap”. The things all three of these products have in common that the other products do not have is the visibility of paper or cardboard in the packaging, decorative graphics instead of bold solid colors, and they limit the view of the filler product by covering it with packaging. The bulky packaging covers the product, making it difficult for the consumer to decide if it will work well. This packaging also makes it difficult to evaluate the color of the filler. The word “tacky” or “busy” often accompanied the middle packaging (Hard Candy®). The type on this package has script, sans serif, and a scratched looking artistic type. The thickness of the sans serif type

changes, using a large white border. The excessive decorating visually weighs down the package. The product was said to appear “thick” or “heavy”. It also came across as too young. However, the younger women and women who like the more interesting and designed products were also put off by this packaging because of the lack of saturation in the colors. It uses blacks, and grays for the majority of the package. Avoiding hiding the filler product in excess package, will help



Figure 10. Packaging that resembles a cheaper product is perceived as cheap

keep the product from being perceived by most as cheap. Having less visibility of the filler product makes the consumer feel uneasy about the quality and consistency of the filler (mass). When buying foundation the packaging only assist in conveying positive traits about the filler. The idea in packaging should be to showcase the filler. Concealing the filler decreases credibility of quality, color and consistency of the product.

Products were also perceived as cheap if they mimicked anything other than foundation (toothpaste, lotion, eye drops). In Figure 10 the three products on top very closely resemble the medical products below each of them. These similarities were seen as negative by women in the (HH) high confidence group and the (LH) conditional confidence group. Products that women could associate with another product were repeatedly associated with the term “cheap”.

4.2.3. Glass Use in Foundation Packaging

Glass was a feature often perceived as making the product more expensive or better quality. This was only the case when it was given a visible thickness, where the inner siding of the material varies from the outer siding. Figure 11 gives an example of variation in material thickness. The blue line shows the inner lining of the glass, while the red line shows the outer side. The glass on the bottle of the figure on the left, gives attention to the thickness variation of the

material. The inner lining of the glass and outer lining have different angles. This brings more attention to the glass. Glass is typically perceived to house a higher quality or “nicer” product, but it only becomes “luxurious” when treatment is given to the glass that brings more attention to the material. Having thicker glass allows light to shine through and reflect more. This shine also plays a part in adding the illusion of luxury. The object on the right (Figure 11) does not vary in thickness until the bottom. Using material variation in thickness only on the bottom was not shown to signify a more expensive or luxurious product. The Neutrogena® bottle on the right in Figure 11 has a more stream line application of the glass. This consistent thickness of glass, using straight lines and a flush cap give the product a “clean” and “simple” look, often appealing the LL group. This same approach is considered boring to women who are recreational shoppers.



Figure 11. Material thickness variations: Left product shows variation in thickness of outer and inner layer of material. Right product shows variation only on bottom.

It is important to notice the visibility of the filler in both products in Figure 12. There is minimal type, color, and decoration on both bottles. The relationship of the lids and the glass line up exactly, creating a streamline effect. Women who used foundation on a daily basis and are more



Figure 12. Clean streamline treatment of glass.

cautious about getting every drop out believed glass containers that did not have a pump would not allow them to get the product from the bottom of the bottle. They also believe the containers that implemented thick glass with visible thickness were wasteful.

4.2.4. Plastic Use in Foundation Packaging

Plastic packaging in foundation is not always perceived as “cheap”. The benefits of using plastic packaging are a reduction in weight, and a more durable product for storing and carrying around. The plastic products that use a more opaque plastic treatment are more often considered cheap, and they cloud the view of the filler. These plastics are also most likely to be perceived as boring. Plastics that have more reflection do not mute the filler, and give it a more luminous look. This opaque plastic (Figure 13) was never considered attractive, and gave the foundations a cheap and generic feeling.



Figure 13. Opaque plastic in foundation packaging.

4.2.5 Color Use in Foundation Packaging

The use of color and the amount of color both affect how a product is perceived.

L’Oreal® Magic Smooth™ (object 1 in Figure 14) has a large pink lid. Using a feminine color gave this package a more “fun” and “girly” response from women. The color is displayed in a solid, bold and simple way which keeps it from looking “tacky” or over decorated. No negative responses were made about the color of this product. The application of dark type on the Hard Candy® (object 2 in Figure 14) packaging made the filler product seem darker and heavier. Even though three of the four colors used in this package are unsaturated (black, grey, white, pink), there are more color variations on this package than there are on any other packages, with grey being the most prominent. Grey did not evoke any kind of happy, pretty, girly, or positive



Figure 14. Color assumptions in foundation packaging

response. The drab and dull colors make the product appear dark and cheap. De-saturated colors are only perceived favorably when the material they are on is given a shiny, or metallic

treatment, and correlate to the shape or function of the product. The Hard Candy® package was assumed to be thick, and heavy by multiple participants. Dark colors, and black tend to be “heavier” colors and must be used sparingly. The black type on the plastic tube adds visual weight to the filler product in the Hard Candy® package, ironically this product is tinted

moisturizer and supposed to have a lighter consistency than foundations. Black was considered “classy” in Maybelline® Fit™ (product 5 in Figure 14). This package uses a shiny black cap with gold details. Products using black as the main color were all considered boring, except Maybelline® Fit™. The combination of gold and a shiny finish of the black were well perceived by women looking for something simple and modern. The simple color choices used in the Neutrogena® packaging produced a clean and simple response without being boring. The shine of the product also made it more eye-catching and likely to get noticed. Neutrogena® products did not consistently score high in functionality, but they were all referred to as “easy”. The simplicity of the color pallet in packaging (clear and silver), along with the down play of text on the face gives a clean and uncomplicated reaction. These features are seen positively by women who do not want to take time to read the bottle. They are not interested in a lot of information. The consistent lines and absence of extra wording, colors, and shapes gives the product a straightforward appeal that is to the point. The light accent of blue in the L’Oreal® Visible Lift® gives attention to the pump, as well as a touch of personality to the product. This personality will be more attractive to women who take enjoyment in purchasing and using cosmetics.

4.2.6. Shape Assumptions in Foundation Packaging

The Neutrogena® Healthy Skin® (middle, Figure 15) was recognized as runny by four participants. The large lid makes the bottle look like it has a wide mouth. The tapering of the Covergirl® Clean (left, Figure 15) to a smaller cap makes the bottle appear to have a smaller opening. The Covergirl® Clean was also perceived to be smaller

than the Neutrogena® Healthy Skin®. L’Oreal® Visible Lift® (right, Figure 15) was the only glass to have a curved silhouette. This product was recognized as fancy, even though it did not have much variation in material thickness. The curved lines give the product novelty and a more elegant character with its subtle curves. Organic shapes integrated in a silhouette give a soft and graceful quality to the product. This product was also thought to fit well in a makeup bag and in a woman’s hand. This can also be contributed to the curves of the bottle.

For women who are less interested in cosmetics and do not want them displayed on a counter or sink, a smaller and travel friendly bottle is preferred. Squared edges make the product seem more bulky. Simply highlighting the pump, or dispenser increases perceived functionality. Lancôme® (left, Figure 8) was also seen as functional because of the pump, the lid is clear and pump is easy to view although more attention is not drawn to the pump with color or novelty. The L’Oreal® Visible Lift® (right, Figure 15) scored higher because of this extra emphasis on the pump with the color accent. The Neutrogena® Glow Sheers® (right, Figure 8) was also viewed as functional because it was squeezable and would fit into a bag easily. Size played a larger role with women who limit their makeup collection to a smaller amount of space (Figure 6). Women in the LH group feel they “need” to use makeup in order to be attractive and feel feminine, they are not overly concerned with having the product small enough to store, and it rarely influences their product perception. This consumer (LH) may purchase multiple products (one that she can carry with her like a compact and another more luxurious product to use at home) to fit all of her needs. She does not feel comfortable in public without makeup on, so carrying some to “touch up” is necessary for those who are more insecure without it. The

products that were explained to be bulky and large had thicker glass and more geometric shapes, but were not the largest products. The Lancome foundation is 1/16 inch shorter than the Neutrogena® meneral sheers® foundation. The products that were perceived to take up more room all had squared containers. The Maybelline® Fit™ (product 5 in Figure 1) foundation is 3/8 inch shorter and ~1/8 inch thinner on both sides, in comparison the the L’Oreal® Visible lift® (right, Figure 15), but it is described as being bulky. The squared corners and material thickness in packaging of Lancome® (product 6 in Figure 1), Maybelline® Fit™ (product 5 in Figure 1), and L’Oreal® Magic Smooth™ (product 12 in Figure 1) ad visual bulk and wieght to the size of the product. They are perceived as more difficult to store. More organically shaped products (products 1, 3, 13, & 14 in Figure 1) are understood to be easier for travel and storage.



Figure 15. Bottle shapes for foundation packaging.

4.3. Lipstick Results

Lipstick is the most changeable and easy to use color cosmetic product. A woman's lipstick color can be changed easier than any other product. Lipstick represents a mood or a season. It requires far less cosmetic knowledge to change lip color than with eye shadow, where new colors sometimes require a new technique or application. There is less commitment with a new lipstick, as with foundation where the cost is higher. This is the primary product women carry with them, and for this reason it carries more personal connection. It is one of the most enjoyable product to purchase (second to eyeshadow). In my experience in the cosmetic retail environment, I learned that women spend more time nit picking over small shade variations in lipstick more than any other accent color cosmetic product. Women had the most confidence when evaluating lipstick.

Lipstick	HH	Positive Description	LL	Positive Description	LH	Positive Description
Wet n Wild® Wild Shine®	1		1	sleek, streamline, see product	3	thin, easy, soft, usable, fits in my bag, easy to see color
Estee Lauder® Double Wear	1	texture, I can feel in my purse	3	classic, solid, expensive	1	classy, black & gold
Neutrogena® MoistureShine®	0		1	soft, secure cap	0	
Covergirl® NatureLuxe™	2	small, clear, natural, functional	0		1	clean
Rimmel® Lasting Finish	0		0		0	
Maybelline® ColorSensational™	0		0		0	
L'Oreal® infallible®	3	sleek, long, fancy,	0		5	sleek, I can see color
Covergirl® (cube)	1	sleek, I can see color	1	all in one	1	texture, I can see color
Clinique® Long Last	3	glamorous, classy, pretty, shiny, solid, texture	1	texture, different	3	classic, sturdy, silver
Revlon® Colorburst™	2	sleek, classy, different	1	classic	2	nice, classy
Rimmel® Moisture Renew	3	rich, bright, happy, pretty	1	fun	5	colorful, fun, bright, love purple, shiny, eye catching
L'Oreal® Colour Riche®	2	glamorous, day or night	0		0	
Neutrogena® Soothing Lips	0		1	no plastic, no fru fru	0	

Table 13. Product choice by confidence groups: This table shows the similarities and differences in lipstick evaluations for each group.

HH Women	Positive	HH Women	Negative
3	sleek	4	cheap
2	classy	4	plain
2	visible	4	ugly
2	glamorous	1	flimsy
2	pretty	1	old
2	texture	1	boxy
1	bright	1	not visible
1	different	1	purple
1	fancy		
1	functional		
1	happy		
1	long		
1	natural		
1	rich		
1	shiny		
1	small		
1	solid		

Table 14. Positive and Negative Word Selections in Lipstick of HH group

LL Women	Positive	LL Women	Negative
2	classic	3	cheap
2	solid	1	old
1	different	1	plane
1	fun	1	plastic
1	nice	1	frumpy
1	secure cap	1	not visible
1	sleek		
1	soft		
1	streamline		
1	texture		
1	visible		

Table 15. Positive and Negative Word Selections in Lipstick of LL group

LH Women	Positive	LH Women	Negative
3	classy	4	ugly
3	sleek	3	old
2	purple	3	cheap
2	color	3	plain
1	pretty	2	ribbed
1	thin	1	skinny
1	easy	1	young
1	nice	1	big
1	fun	1	not visible
1	silver	1	purple
1	sturdy		
1	bright		
1	clean		

Table 16. Positive and Negative Word Selections in Lipstick of LH group

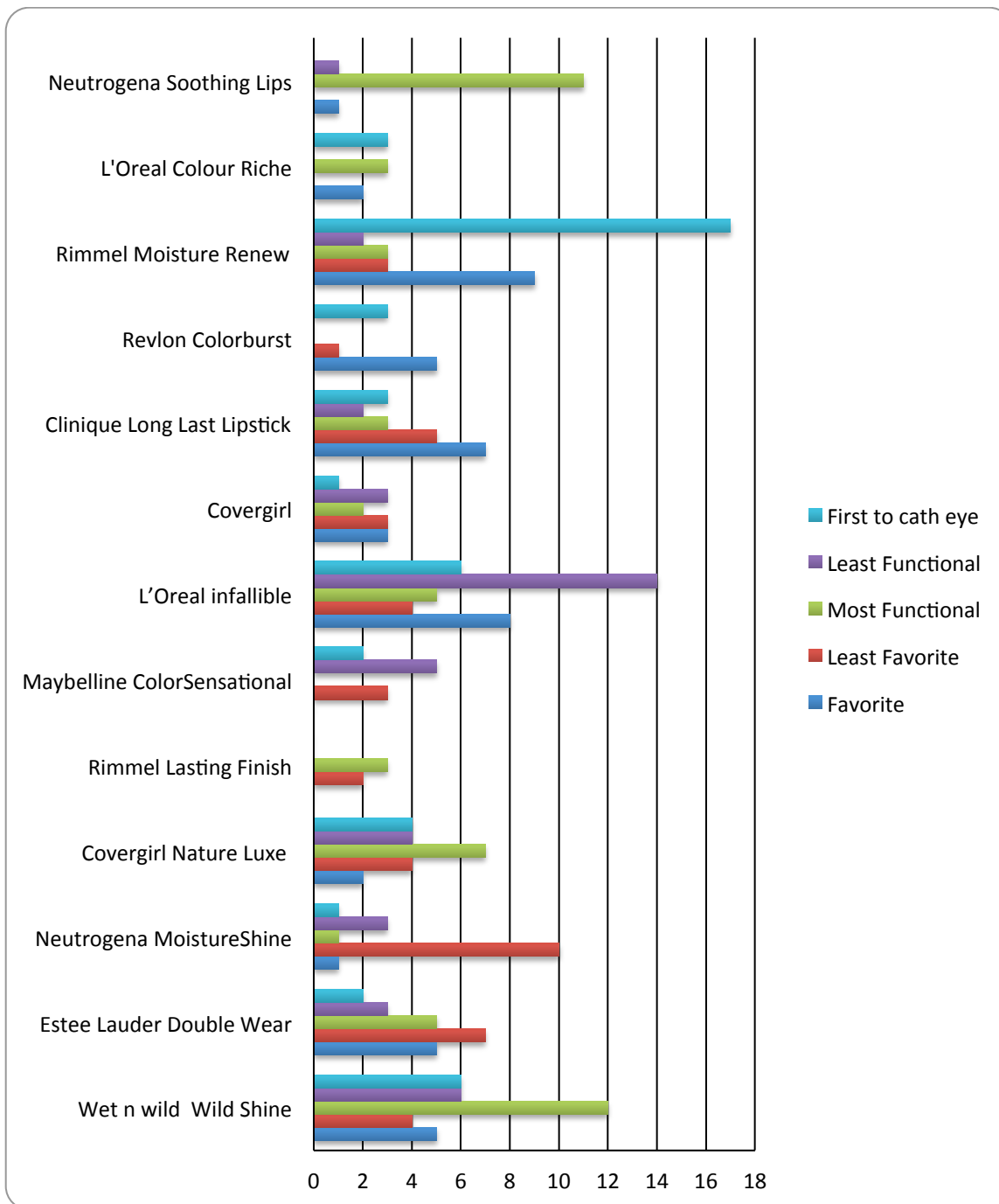


Table 17. Lipstick ranking in function, product preference, and eye-catching

There were no similarities in product opinions of lipstick packaging and confidence or interest levels. The way women perceived lipsticks was much more related to life experience or people they associated with the products. They associated various products with people the

product reminded them of. This is most likely because lipstick is the product most likely to be used publicly and women form judgments with products and people they see using them. Also women across groups looked for function and appearance equally. Overall the number one most favorable characteristic was “classy”. The number one negative term used was “cheap”. This was continuously a negative characteristic; the variations were what features triggered this negative characteristic response from the participants.

Women	Positive	Women	Negative
7	classy	10	cheap
7	sleek	8	plain
4	sturdy	8	ugly
3	pretty	5	old
3	texture	3	not visible
3	visible	2	purple
2	bright	2	ribbed
2	color	1	flimsy
2	different	1	boxy
2	glamorous	1	plastic
2	happy	1	frumpy
2	purple	1	skinny
2	thin	1	young
1	clean	1	bulky
1	easy		
1	fancy		
1	functional		
1	natural		
1	nice		
1	rich		
1	secure		
1	shiny		
1	silver		
1	soft		
1	streamline		
1	tall		

Table 18. Positive and Negative word associations for all women pooled: there was not a strong enough connection with confidence groups and their design assumptions in lipstick packaging to study groups separately.

4.3.1. Functional vs. Superfluous Lipstick Packaging

The products that were described to be the most functional were Wet n Wild® Wild Shine® (product 1 in Figure 4) and Neutrogena® Moistureshine® Soothing Lips (product 13 in



Figure 16. Material Thickness in Lipstick Packaging: The blue line represents the center lining of the packaging wall. The red line represents the outside lining of the packaging wall.

Figure 4). Both of these products are tall and slim. Taller lipsticks carried the notion of being sleek as well. Products 1, 7, and 13 in Figure 4 were all referred to as sleek more than any other product. Product 7 in Figure 4, which is the L'Oréal® Infallible®, is much taller than the other two lipsticks that were referred to as sleek. From these results we can assume that a taller and thinner lipstick is sleeker and more functional, as long as other negative features are not implemented into the package. In the L'Oréal® Infallible® (left, Figure 16) there is a visible thickness of material on the sides of the product. This same feature created feelings of bulk and excess packing in foundation. The characteristics

established by this feature holds consistent in lipstick package design. This feature also created a feeling of “fancy”, consistently in lipstick as it did in foundation. When the visible material thickness does not have a clear line of distinction (right, Figure 16) between the inner and outer layer of the package wall, there is no connection with the product being fancy. The objects in Figure 16 have a visible thickness in the package wall. This produced a response of being “bulky”, identical to perceptions of visible thickness in transparent materials found in foundation packaging.

4.3.2. Transparent Lids

Transparent lids are often preferred for judging the color of the filler product without opening the tube. However it can be interpreted as “cheap” if they are not designed correctly. The Neutrogena® Moistureshine® (product 2



Figure 17. Transparency in lipstick lids

in Figure 17) along with Wet n Wild® Wild Shine® (product 1 in Figure 17), and Maybelline® ColorSensational™ (product 3 in Figure 17) were most commonly referred to as cheap. All of these products have completely transparent caps. There was a recurring certainty that these caps would not stay on, and that the product was cheap. Covergirl® NatureLuxe™ (product 4 in Figure 17) was also considered cheap, but not as frequently as the other products. The ability for the lid to stay on was not questioned. The lid in Covergirl® NatureLuxe™ is totally plastic, but the cap is not entirely transparent. In Figure 16 the red arrow shows where this cap is given a color covering that shields the lipstick. The cap is only thought to be unstable when the entire unit is transparent. Even in the Maybelline® ColorSensational® (product 3 in Figure 17) the clear cap was given a pink tint it was still referred to as flimsy, cheap, and having an insecure lid. Regardless of tint, if a lid is fully transparent it comes across as cheap and the lid is expected to not stay on well. Products where the side of the lipstick bullet is visible (products 1, 2, & 4 in

Figure 17) are perceived as “softer”. When there is a larger surface area of lipstick visible, this view of both the top and side of the filler makes the product seem to have a smoother consistency.



Often a sticker or colored plastic is not reliable enough for evaluating the filler color and the consumer will want to be able to judge the actual product.

Transparent lids give more attention to the filler product and are an easier and more reliable way for a consumer to evaluate the filler product. The blue circles in Figure 17 show filler product can be viewable, without using completely transparent plastic lids subsequently

Figure 18. Plastic application paralleling glass cheapening the product. The thickness of the plastics and the glass-like appearances keep these products from appearing to be cheaply made by adding a visual weight. The filleting of the corners is characteristic of how glass is manufactured, the mimicking of glass gives products the visual weight and therefore assumed quality that is often associated with glass cosmetic packaging. Sharper edges are very rarely used in glass packaging, and are an automatic giveaway when applied to plastic packaging. Because the LH women often use cosmetics to free themselves from their feelings of bodily inadequacy, the act of using something that is beautiful and luxurious mimics their desired self-presentation of also being more beautiful and luxurious. Lipstick packaging is evaluated most closely because it also takes on a role of being an accessory. Some women commented that the lipstick would be nice for day or night, or that the purple case would not match everything. These comments show that when

purchasing lipstick, women take into account how they will look when they use this product in public. Women in the LH group are typically the ones to have these reactions. The HH and LL groups chose products they liked and did not worry as heavily about what other people would think about their products. This brings us back to the idea of shopping to match what a consumer believes to be their own image (HH, LL) or purchasing products that reflect the consumers idealized image (LH).

Lids that were considered sturdy and looked like they would remain secure in a purse or bag were those that compose a longer portion of the tube. Figure 19 shows the lipsticks that consumers believed had stable

lids. These products all have non-transparent lids and the percent of the product length that is the lid is over half.

Figure 20 shows the length of all the lipsticks with solid caps.

Of these lipsticks the ones believed to have the most

secure caps are those

highlighted in red (Table 19).

Placing the parting line for a lipstick cap below the halfway point gives an illusion of a more secure cap regardless of the method used to secure the cap.

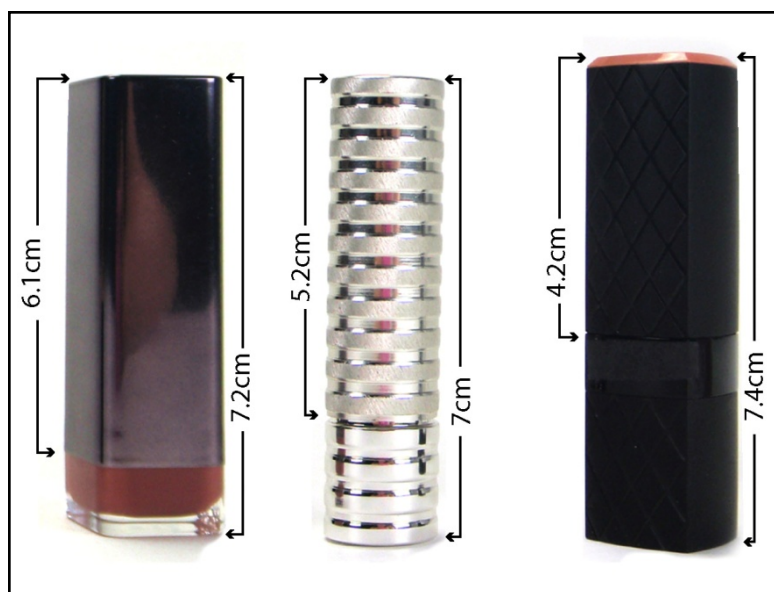


Figure 19. Lipsticks with visually secure lids consistently have parting lines below the halfway mark.

Lipsticks	Length cm	Lid Length cm	Lid percent of length
Covergirl® Lip Perfection™	7.2	6.1	0.847222222
Clinique® Long Last	7	5.2	0.742857143
Estee Lauder® Double Wear	7.8	3.6	0.461538462
Neutrogena® Soothing lips	8.2	4.1	0.5
Revlon® Colorburst™	7.4	4.2	0.567567568
Rimmel® Moisture Renue	7	3.2	0.457142857
Rimmel® Lasting Finish™	7.4	3.2	0.432432432

Table 19. Lid height: Products believed to have more secure lids (red) when the height of the lid made up more than 50% of the product height.

4.3.3. Texture and Color Execution in Lipstick Packaging



Figure 20. Textured and not textured lipstick casing

Texture in a pattern gave products a “classic” or “classy” response from the participants. Products 1, 2, and 3 in Figure 20 are the three to be described as classy. These products were also associated with a high-end brand. Metal texture gives the products a more expensive appearance. This more expensive look is also



Figure 21. Lipstick ad from 1950's



Figure 22. Max Factor ad 1950s

associated with a more mature consumer. The metal products 1 and 2 in Figure 20 were referred to as “grandma”. The Estee Lauder® lipstick (product 1 in Figure 20) was most often referred to as old. The reason for this connection with

predominantly gold lipstick tubes is that in the 1950's lipstick was nearly always designed with a gold tube. For more comparison, a Revlon® lipstick tube from the 1960's is shown in product 2 of Figure 23 beside the Estee Lauder Tube (product

1 in Figure 23). It was also the style in that time to wear bright red lipstick. For this reason both bright red lipstick and gold tubes are associated with women who are from this era. The makeup

ads shown in Figure 21 and Figure 22 are examples of this style pattern that dominated women's lipstick during the 1950's. During that time period lipstick tubes and cases were a textured metal with a color or one solid metal color, with gold being the prominent choice. Staying away from these color/texture combinations would be beneficial for a more trendy or updated look. The Revlon® Colorburst™ (product 3 in Figure 20) was also referred to as classy, but not "old". This combination of a brighter pink at the top of the lid, and matte black instead of a metal made the distinction between "classic old" and just "classic". Dark colors combined with gold and silver create the "grandma effect" (when consumers believe a product is representative of something they see their grandmother or a grandmother using). L'Oreal® Colour Riche® uses predominately metal in the package design, however the depth and lines integrated in the design with the clear plastic area keep it from emulating lipstick designs of the 1950's.

Colors used on a lipstick packaging can make them "fun" and "happy" (product 5 in Figure 23) or "old fashion" and "boring" (products 3 & 4 in Figure 23). Dark colors have a much higher risk of being perceived as boring. Tubes concluded to be boring were Covergirl® lip perfection™(product 3 in Figure 23), Rimmel® Lasting Finish® (product 5 in Figure 23) , Covergirl® NatureLuxe (product 6 in Figure 23) and Estee Lauder® (product 1 in Figure 23). Large areas of darker colors should be broken up with depth in materials using layering or textures. The Revlon® Colorburst™ (product 3 in Figure 20) uses texture on the sides of the package and a pop of pink at the top. The Covergirl® lip perfection™(product 6 in Figure 23), and Rimmel® Lasting Finish® (product 4 in Figure 23) do not breakup the smooth dark coloring with textures, this lack of personality and detail makes these products less appealing to customers in the LH and HH groups because they reflect their ideal image through lipstick and



Figure 23. Color and depth treatment in lipstick packaging

these products are too simple or boring to do that. The red line in Figure 23 on the Rimmel® Moisture Renew® (product 5 in Figure 23) shows where the packaging integrates two layers of material to add depth to the

product. The outer layer is a thick clear plastic around an inner silver tube. The layering of minerals using transparent plastic adds depth and detail. The purple color used in this lipstick tube made it the most eye-catching of all the lipsticks. This product was concluded to be “fun” and “happy” and women who preferred this product had an average score of 7 out of 10 on how girly they believed they were. The solid bright colors had more positive and “girly” reactions than the colors that were applied with graphic designs. Covergirl® NatureLuxe™ (product 6 in Figure 23) displays a green floral graphic on the lid. This design makes the product seem more like chapstick, and one participant believed it was “frumpy” and looked like it was from the 1970’s. These associations with products influenced the participants’ perceptions of the lipsticks very strongly. Designing products that do not mimic past designs and styles would keep products from being associated with outdated time periods. Bold colors make a statement that can be accepted by a wide range of women. Adding pictures and graphic designs narrow the market. This can be comparable to wallpaper. Bright walls will be appealing to anyone who likes bright walls, however wallpaper is far too specific and will turn away far more people than it will bring in. Design elements and details are much more appreciated and influence the product value

positively when they are integrated into the shape through physical elements such as layering, part splits, raised designs and textures, not through graphics.

4.4. Eyeshadow Results

Eyeshadow preference was determined by a users interest and enjoyment in makeup. This is because of the wider spectrum eyeshadow can be used and manipulated, widening the gap between enthusiast and apathetic users. With eyeshadow the women who are eyeshadow aficionados, (they know about all the products and consider themselves well versed in cosmetics and cosmetic application) prefer eye shadows that look more professional. Women who don't take makeup as seriously, have higher confidence and enjoy makeup will go for more playful forms of packaging. Women with the least interest and enjoyment in applying eyeshadow prefer maximum visibility of product and ease of use.

Eyeshadow was considered the most enjoyable cosmetic to shop for. It generated the most excited answers, ("Yay!", "I love new colors!" "Fun and new"). Eyeshadow is the product with the most area for variety in color and application methods. While most women use that same foundation daily, some change eyeshadow based on their mood the occasion. The women who enjoy "playing" with makeup tend to have higher confidence in their makeup know how. They prefer products that mimic what they think is a more professional quality or style of eyeshadow. These are minimalistic packaging with square corners, glossy finishes, thicker and heavier plastic, black white or silver coloring, and limited type.

Women who change their cosmetic routine tend to buy eyeshadow even when they don't need it. Brand loyalty is not strong with this product category. Eyeshadow is a huge impulse buy, second only to lipstick. Applying eyeshadow requires some kind of knowledge and skill in the application. A Woman's likelihood to invest additional time to learn a technique is based on her perceived "need" (she believes she needs to invest time because it is the only way she can make herself presentable) or interest (she gets enjoyment or entertainment from trying new looks). This is the cosmetic product that women are most likely to feel unsure about their application skill.

Eyeshadow	HH votes	Positive Description	LL votes	Positive Description	LH votes	Positive Description
Maybelline® Expert Wear®	2	Practical, visible(x2)	2	easy, practical	1	labeled
Neutrogena® Nourishing eye quad	2	visible, clean	0		3	compact, large base, easy
Physicians Formula® Baked Collection®	1	trendy	0		2	trendy, pretty
Revlon® Illuminance™	0		1	style	0	
Covergirl® exact eyelights™	1	fun	0		1	says for my eye color
Almay® intense i-color™	1	colors	1	colors	3	easy, for my eyes, colors
Revlon® CustomEyes™	6	rich (x2), easy, texture (x2), fancy, pretty, attractive,	3	attractive (x3), compact, more	7	functional, pretty (x2), classic (x2), textures (x2), simple, sleek, more, compact
L’Oreal® Wear Infinite® Studio Secrets™	0		0		0	
Rimmel® Glam’ Eyes	1	compact	3	sturdy, compact, presentation, classy, practical	0	
Eyestudio by Maybelline®	1	stylish	0		2	modern, hip
Covergirl® Eye Enhancers	0		1	easy	0	
Almay® intense i-color™ smoky-i™	1	easy	0		3	eye catching, stylish, fun
L’Oreal® Wear Infinite®	1	visible	0		0	

Table 20. Eyeshadow choice by confidence groups: This table shows the similarities and differences in eyeshadow evaluations for each group.

HH	Positive	HH	Negative
4	visible	5	bulky
2	rich	2	boring
2	texture	2	weird
	practical	2	unappealing
	clean	2	eye balls
	trendy	1	too trendy
	fun	1	cheap
	colors	1	dry
	compact	1	complicated
	easy	1	confusing
	fancy		
	attractive		
	pretty		

Table 21. Positive and Negative word associations of women in the HH group describing eyeshadow.

LL	Positive	LL	Negative
3	attractive	2	bulky
2	easy	2	cheap
2	compact	2	confusing
	colors		break
	style		plain
	more		small
	practical		dry
	classy		
	sturdy		
	me		
	presentation		

Table 22. Positive and Negative word associations of women in the LL group describing eyeshadow.

LH	Positive	LH	Negative
3	compact	5	bulky
3	pretty	4	bland
2	labeled	3	boring
2	easy	2	small
2	trendy	2	cheap
2	says for me	1	old
2	classic		gray
2	textures		break
	large base		dry
	colors		messy
	functional		not appealing
	simple		confusing
	sleek		
	more		
	modern		

Table 23. Positive and Negative word associations of women in the LH group describing eyeshadow.

		I use makeup as little as possible either because I am uncomfortable applying it, I feel it is a bother, or I think it can be overdone.	I like makeup, but its not one of my favorite things.	I love makeup! It is a toy, fun to play and learn!			
2	classic	5	easy	4	attractive	5	fancy
2	compact	4	simple	3	trendy	2	functional
	pretty	2	appealing	3	different	2	pretty
	contrast	2	compact	2	easy	2	fun
	easy		fun	2	visible	2	visible
	outstanding		multi-colors		natural		smooth
	modern		sleek		versatile		color
	clean				bold		bold
	sturdy				classic		sassy
	style						

Table 24. Cosmetics relationship groups preferences in eyeshadow

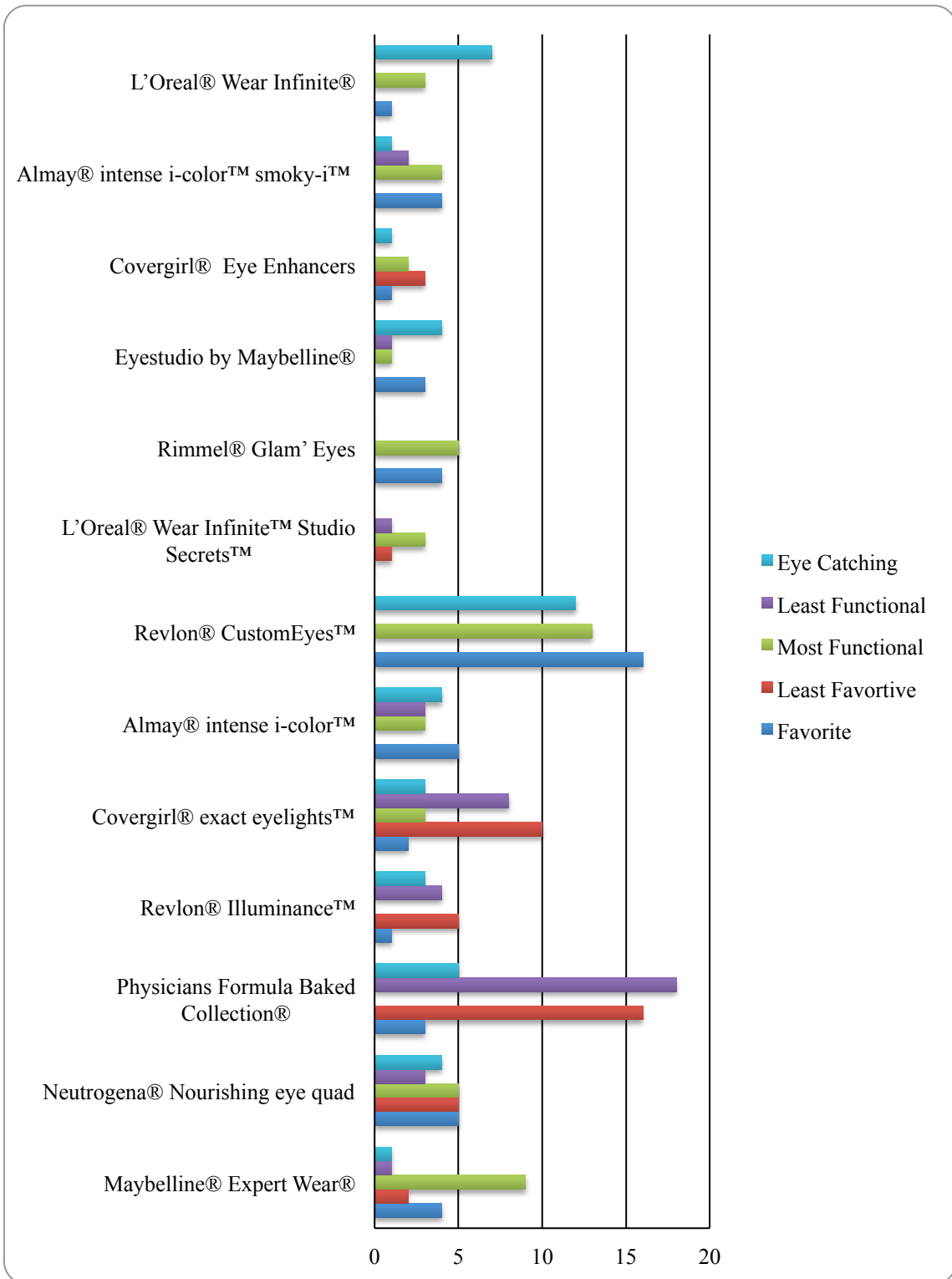


Table 25. Eyeshadow ranking in function, product preference, and eye-catching

4.4.1. Colors used in Packaging for Eyeshadow

Eyeshadow colors should be displayed the way you would display a painting. The frame should showcase the piece and not take over the piece. Black, silver and white make the colors stand out best. The products that used black and white and silver color pallets were accepted more favorable. Black treated with a shiny finish made participants received the colors as more bold. From the information gathered in lipstick packaging, black was received better because darker colors signify better value, or a more expensive brand. Women expect more expensive eyeshadows to be of better quality, less likely to crease on the eyelid, and better staying power. The color of the package influences the perceived color of the filler. The two L’Oreal® Infinite® shadow quads have the exact same filler (also called mass), but one is packaged in black with a square frame and the other in a gold colored plastic with a round frame. The gold case was perceived as having more bland colors that “don’t pop”. The black case was still understood to be boring. The plastic used in the black case does not have a shiny finish. The less contrast between the shadow and the case makes the colors look less pigmented and chalky.



Figure 24. Color in Eyeshadow Packaging

Numbers printed on the shadows were also not as informative as word labels (product 1 in Figure 5), or the shape of the shadow to explain locations for application (product 3 in Figure 5). Shapes of the shadows combined with the framing of the window on the case were one of the strongest if not the strongest indications of usability and function.

4.4.2. Windows on Eyeshadow Packaging



Figure 25. Eyeshadow packing window shapes

The viewing window on an eyeshadow packaging is the window you look through to view the filler products. The shape of these windows and the amount of the window compromised of filler are definitive in product judgment for stability, cleanliness, and value. Products with a clear flat lid that extended all the way to the ends of the package were received to have better visibility. Figure 25 shows the shapes of the frames that extend to the ends. Product 1 (Figure 24) had black thickness on both right and left end of the face, but the long clear plastic lid extends to both ends. The other product noticed specifically for its visibility of eyeshadow filler was product 7 in Figure 25.

Applying a frame to the window was shown to increase the perceived strength of the package. Product 6 and 8 in Figure 25 have no change in the material used on the lid. These products only apply a black color coating around the frame of the shadows. This frame visually strengthens the plastic used in the lid. In product 8 the frame completely blocks out everything else contained in the packaging other than filler product. The filler product does not have plastic separating each color. The top view of the packaging is compromised of 60% product view. Crisp framing is characteristic of classic and modern eyeshadows.

Another feature that was always perceived as compact was using a square shaped package with squared corners opposed to a rectangular shaped product. Products 6 and 7 (Figure 25) were perceived as compact, regardless of the excess spacing between shadows in product 7. Women who value compactness of eyeshadow packaging are those who enjoy cosmetics less.

4.4.3. Features to Indicate Quality in Eyeshadow Packaging

Superfluous packaging using paper product is across the board considered to cheapen a product. Product 2 and 5 in Figure 4 were most commonly considered the cheapest products. Product 12 came in a distant third. The irony of product 5 being perceived as cheaper than product 11 is that this is the exact same product, with product 5 having a white box and brush added to the package. This similarity of inclosing a product in a cardboard exterior packaging resulting in visually cheapening a product also existed in foundation. Another feature that made women feel like they were being swindled on the product was excessive spacing between shadows. Product 9, 7, and 2 have excess space between round shadows. Using round shadows increases the amount of space needed between the filler shadows. This increased space is perceived as wasted space. Giving the shadows geometric shapes that fit together makes the product stand out because it does not use basic polygons, and does not require the package to space out shadows (products 3,6, & 10 in Figure 4). These unique shapes were appealing to women who enjoy makeup. They are attracted to new interesting shapes that seem new and modern. All three products that used circles were confusing to many participants. The product would be perceived as more valuable and cost efficient if the volume of the shadow was not used in height, but flattened to have the visual footprint of each filler shade maximized.

Products that use sharper angles for the casing are perceived as modern. When the filler products are giving texture without being strange or “weird”, they are expected to have a richer quality of filler. This texture gives the filler depth. The rounding of the shadows does not give it this “rich” quality. Round products are attractive to women who enjoy experimenting with new

or different products. Using texture is very well received by women who prefer a high-end product, making the filler appear more dense and rich. The textures aid in making the fillers seem rich, along with the way the powder interacts with its immediate casing (spacing between shadows, placement of shadows, and windows). Figure 26 shows the special gaps between the filler powder and the case. These gaps make the product seem less durable, and less high end. Using a lip above the shadows to create both depth in the package material, as well as making it impossible to see the space between a shadow filler product and the casing. This is shown in Figure 27, with the small red rectangle serving as a lip, connected to the base of a package (grey polygon) limiting the likelihood a product will look like it will fall out.



Figure 26. Shadow filler gaps between packaging and filler

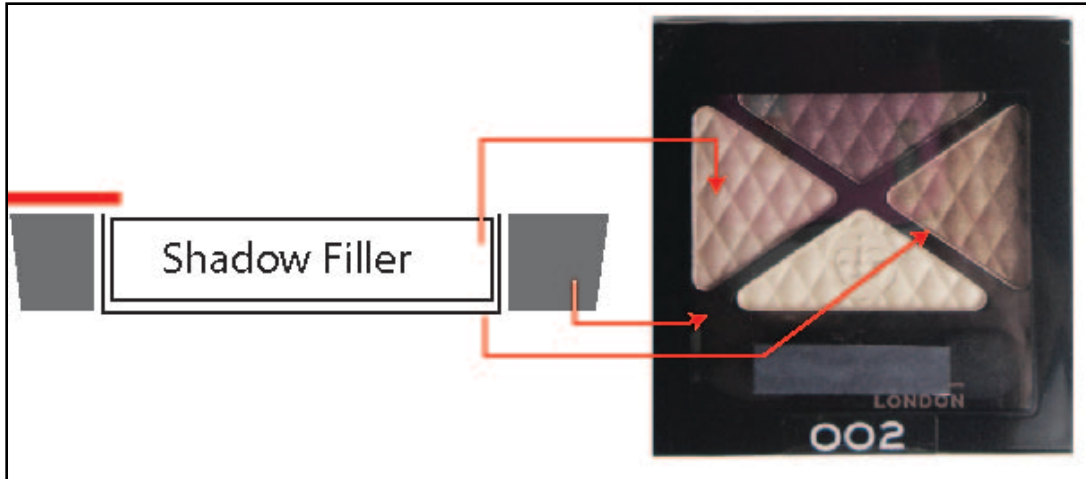


Figure 27. Suggestion to conceal gaps between filler and package

4.5. Result Summary

Grouping women based on only confidence and product interest leaves a lot of area of ambiguity. When studying what forms appeal to these various groups, analysis examines similarities to see what personality traits influence design choice. Also the women who have preconceived notions of various brands, or designs reflective of brands will affect how they judge the products. This cannot be evaluated, because their notions may be formed by past experiences, and all of the women have different experiences.

There was no consistent correlation between personality groups and product selection. The consistency was in what features had certain traits such as cheap, cute, natural, and luxurious. What importance we draw from the personality types are the factors that motivate each group to purchase cosmetics, and expectations they hope to receive from purchasing a product. Taking this into consideration and combining it with the product attributes that carry

certain implications visually, we can design an ideal product for a larger combination of the population.

5. Conclusion

5.1. Design Guides

Design Guidelines for Foundation

Many of these rules can be used interchangeably between products and should be used to innovate new forms in products between categories. Products should evolve within these guidelines, but continue to change in their style and design to keep looking new and innovative, especially for the groups who enjoy to recreationally shop for cosmetics.

High confidence with and without the use of makeup (HH):

- Glass container with variation in thickness of walls
- Bulk is not a concern
- Solid bright color accents
- Play up feminine qualities
- Emphasis on hedonic performance
- Young modern designs
- Innovative silhouette
- Ornate design in form and not only graphic elements

Low confidence regardless of cosmetic use (LL)

- Easier storage (less bulk) so superfluous packaging
- Avoid very tall or thick products
- Simple and direct design
- Looks like a “typical” or familiar foundation
- Keywords (natural, clean, simple, easy)
- No fancy or ornate detailing
- Streamlines
- Minimal text or type
- Accent of attention to the dispenser or application method (easy/clean pump, storage, use), this can be shown through material accents, color, or size.
- Use dark or heavy colors minimally
- Use transparent, metal, and minimal to no color
- Round or curved edges

High confidence conditional to cosmetic use (LH)

- Play up feminine qualities
- Use bold shapes
- Material thickness variation or variation in silhouette that looks like it has variation in thickness
- Bold simplicity
- Accented features
- Modern

- Secure for travel
- Minimal color

Things to consider when designing foundation for any women

- Use solid colors
- Avoid decorative graphics if they do not serve a purpose
- Do not place package in an additional paper product carton
- Show as much filler (mass) as possible
- Avoid dark text over foundation (this makes the product appear thick or darker)
- Make sure the product does not have visual similarities to other products that are not cosmetics (ex. toothpaste, eye drops)
- Do not use script font. Make font easy to read quickly (preferably san serif)
- Use dark colors minimally and only to accentuate product shape or function
- Use colored plastic (especially darker) should be reflective or shiny and not matte.
- If you use black, integrate a bright or metallic accent as well.
- Large lids without a filler dispenser may suggest a runny or messy product

Lipstick

Because women are more comfortable with lipstick and confident in their knowledge of the application and use, confidence and cosmetic use did have a strong significance on design preference.

- Thin tubes indicate sleek or functional
- Excesses plastic is bulky (LL)
- Visible material thickness is fancy (HH)
- Avoid completely transparent caps, they seem cheap and not secure
- To make a lipstick seem softer show the side of the lipstick bullet (filler)
- When using transparent plastics give a large enough radius (use similar restrictions as if using glass)
- Have the filler product visible, this may be done through a store display (colored plastics and stickers are not substantial, and consumers will be more likely to open the product).
- Lid height should make up more than 50% of the entire product height to indicate a secure and sturdy cap (LH and LL)
- Gold should be used very minimally, because of the symbolic references to older woman and the 1950's
- Textured metallic products relate to a more mature (older) audience
- Texture indicates luxury, or a high end product
- Dark colors are most often perceived as boring, they should integrate a color accent or texture to break up large dark areas
- Bright and colorful products are best received by the more "girly" consumers
- Limit or avoid decoration with images through graphics.

EyeShadow

I love makeup! It is a toy, fun to play and learn! (high need high interest)

- Angled/ sharp corners and lines
- Glossy black
- Textured, raised, or embossed shadow filler
- Applicator should not stand out and is not in any way a part of decision (may be completely hidden)
- Avoid coving filler with the lid. (make window large)
- Concerned with the amount of product since this is an avid user, so give shadow a larger footprint, minimal space, and/or accentuated depth of pan.
- Modern and new design, maintaining professional look
- Black and silver are safest colors

I like makeup, but it is not one of my favorite things. (high interest, low need)

- Variation in shadow shapes (not always squares, rectangles and circles)
- Variation in shadow sizes (if they are squares or rectangles give larger areas to more popular colors, and ad interest with sizing)
- New hip and trendy shapes and styles (impulse buyer for something different)
- Freedom to develop new application method

I use makeup as little as possible either because I am uncomfortable applying it, feel it is a bother, or I think it can be overdone. (low interest, low need)

- Compact (square)
- Simple and basic
- Large window
- Clean lines
- not likely to spend time reading labels (get to the point)
- Black is not necessarily a good color (white and silver are equally preferable)

I need to wear makeup to feel or look attractive. (low interest, high need)

- Increase filler footprint as with “I love makeup it’s fun to try and learn new things”.
- Cover as little of the filler product as possible with lid
- Square (compact case)
- Variation in material thickness (visual weight to package)
- Classic look
- Integrate texture

Things to consider when designing eyeshadow for any women

- Completely clear lid that bleeds to the ends makes product seem cleaner (use material thickness on sides if they are visible)
- Frame on window makes product appear sturdier
- Squares indicate more compact product

- Incasing product in package that covers it cheapens the product. If you do this validate it with images of the product and do not have excessive boxing. Package may be adhered to paper hangtag without cheapening the product.

5.2. Implications of Findings

For all participants, the areas of focus in determining each group's visual favorites and choices should be the main area to focus attention on during the design of these products as it pertains to each personality group. Another industry to have tried this suggested targeted design is the tobacco industry. The tobacco industry has altered attributes of product design to target smoker groups (Cook, Wayne, Keithly, & Connolly, 2003). RJ Reynolds did this with its Camel brand, targeting youth smokers successfully through the creation of cigarettes with reduced harshness and irritation, increased nicotine impact, reduced perception of harshness, and taste enhancers (Wayne & Connolly, 2002). The industry has altered attributes of product design to reduce perception of environmental tobacco smoke to appeal to smokers concerned with acceptability of second hand smoke (Connolly et al., 2000, as cited by Cook et al., 2003). The tobacco industry has shown targeted design can be used to improve sales, the cosmetic industry to similarly increase sales and market design direction by implementing similar behaviors.

This study finds, based on the four responses that cosmetics create when being used by women, (Apaolaza-Ibanez, Hartmann, Diehl, & Terlutter, 2010) that the four emotional experiences related to the use of cosmetics were social implications of a cosmetic purchase are only part of the hedonic performance of a cosmetic product. The final decision of what the

participants intended to purchase was compared to what the consumer chose as the most functional, most aesthetic, and first to catch their eye. The participants who chose products that they perceived to be most functional as their favorite product signified that function is the most important aspect in their decision-making for a cosmetic purchase, while the participants who choose products based on their attractiveness show these women place more value on aesthetic beauty than functionality. This was assumed to parallel with the personality groups of functional shoppers versus recreational shoppers (Phillips, 2009).

In all these design evaluations, the advertising must match what the consumer is looking for. The women read labels and are interested in what the product says. The initial assessments will get the consumer to approach a product and will give more credit to the claims made. As with any design and sale of products, the marketing, design, and timing for market acceptance are all integral factors that must work together.

6. Area of Future Studies

The products used in the study carried a large number of design traits. This makes it difficult to fully analyze the features independently. A follow-up study allowing these features to be studied independently would permit a better understanding of these features. Another study should compare fashion trends and outcomes. Repeating the current study in five years would allow us to compare similarities in characteristics given to design traits in cosmetic packaging.

References

- Aaker, J. L. (1997). Dimensions of Brand Personality. *Journal of Marketing Research*, 34, 347-56.
- Adaval, R.. (2001). Sometimes It Just Feels Right: The differential weighting of affect-consistent and affect-inconsistent product information. *Journal of Consumer Research*, 28 (5), 1-17.
- Ahtola, O. T., & Batra, R., (1990). Measuring the Hedonic and Utilitarian Sources of Consumer Attitudes. *Marketing Letters*, 2(4), 159-170.
- Bagozzi, R. P., Mahesh, G., & Prashanth, U. N., (1999). The role of emotions in marketing. *Journal of Academic Marketing Science*, 27(2), 184-206.
- Bruseberg, A., Haslan, C., & McDonagh, D., (2002). Visual product Evaluation: Exploring users' Emotional Relationships with Products. *Applied Ergonomics*, 33(3), 231-240.
- Bhat, S., & Reddy, S. K. (1998). Symbolic and functional positioning of brands. *Journal of Consumer Marketing*. 15 (1): 32-43.
- Cacioppo, J. T., Petty, R. E., & Schumann, D. T. (1983). Central and Peripheral Routes to Advertising Effectiveness: The Moderating Effect of Involvement. *Journal Consumer Research*, 10, 135-146.

Cash, T. F. & Cash, D. W. (1982). Women's use of cosmetics: psychosocial correlates and consequences. *International Journal of Cosmetic Science*, 4, 19-28.

Chao, A., & Schor, J. (1998). Empirical tests of status consumption: Evidence from women's cosmetics. *Journal of Economic Psychology*, 19, 107-131.

Connolly, G. N., Wayne, G. D., Lymperis, D. & Doherty, M. C. (2000). How cigarette additives are used to mask environmental tobacco smoke. *Tobacco Control*, 9, 283-291.

Cook, B. L., Wayne, G. F., Keithly, L., & Connolly, G. (2003). One size does not fit all: how the tobacco industry has altered cigarette design to target consumer groups with specific psychological and psychosocial needs. *Addiction*, 98, 1547-1561.

Desmet, P., & Hekkert, P., (2007). Framework of Product Experience. *International Journal of Design*. Retrieved August 12, 2010 from <http://www.ijdesign.org/ojs/index.php/IJDesign/article/view/66/15>

Desmet, P.M.A., Overbeeke, C.J., & Tax, S.J.E.T. (2001). Designing products with added emotional value: development and application of an approach for research through design. *The Design Journal*, 4(1), 32-47.

Demir, E. (2008). The Field of Design and Emotion: Concepts, Arguments, Tools, and Current Issues. *Middle East Technical University Journal of the Faculty of Architecture*, 25(1), 135-152.

Dhar, R., & Wertenbroch, K. (2000). Consumer Choice Between Hedonic and Utilitarian Goods. *Journal of Marketing Research*, 37 (2), 60-71.

Elowitz, Ronald S. (2009). Design Director, In-Store Strategy at Johnson & Johnson Consumer Companies, Inc., Global Strategic Design Office. Interview on June 10, 2010.

Forbes, G., Jung J., & Haas, K. (2006), Benevolent sexism and cosmetic use: a replication with three college and one adult sample. *The Journal of Social Psychology*, 145(5), 635-640.

Jacoby, J. (1971). Personality and Innovation Proneness. [Electronic version]. *Journal of Marketing Research*, 8(2), 244-247.

Janiszewski, C. (1990). The Influence of Print Advertisement Organization on Affect Toward a Brand Name. *Journal of Consumer Research*, 17, 53-65.

Jung, J., & Lennon, S. J. (2003). Body Image, Appearance Self-Schema, and Media Images. *Family and Consumer Sciences Research Journal*, 32(1), 27-51.

Kumar, S. (2005). Exploratory Analysis of Global Cosmetic Industry: Major Players, Technology and Market Trends, *Technovations*, 25, 1263-1272.

Lee, M. S. , & Mittal, B., (1989). A causal model of consumer involvement. *Journal of Economic Psychology*, 10(6), 363-389.

Martell, J. (Aug. 11, 2008). *The History of Cosmetics – A Vanity Fair*. Retrieved August 19, 2010 from <http://www.thehistoryof.net/the-history-of-cosmetics.html>

McDonagh-Philip, D., & Lebbon, C. (2000). The Emotional Domain in Product Design. *The Design Journal*, 3(1), 31-43.

Meyer, M. (1988). Attention shoppers! *Marketing and Media Decisions*, 23, 67.

Morgan, M., Carol, Levy, D. J., Fortin, & Michel. (Dec. 1, 2002). *Psychographic Segmentation*. *Communication World*. Retrieved August 12, 2010, from <http://www.allbusiness.com/marketing-advertising/market-research-analysis-market/10603849-1.html>

Mano, H., & Oliver, R. L. (1993). Assessing the Dimensionality and Structure of the Consumption Experience: Evaluation, Feeling, and Satisfaction. *Journal of Consumer Research*, 20(12), 451-466.

Moschis, G. P. (1979). Social Comparison and Informal Group Influence. *Journal of Marketing Research*, 13, 237-244.

Nuyts, E., Petermans, A., Van Cleempoel, K., & Vanrie, J. (2009). Measuring emotions in customer experiences in retail store environments. Retrieved from <http://iasdr2009.org>

Phillips, B. (2009). Through the Looking Glass: New Ideas about the Consumption of Beauty. *Advances in Consumer Research*, 36, 154-156.

Rafaeli, A., & Vilnai-Yavets, I. (2004). Emotion as a Connection of Physical Artifacts and Organizations. *Journal of Organization Science*, 15(6), 671-686.

Schoormans, J. P. L., & Robben, H. S. J. (1996). The Effect of New Package Design on Product Attention, Categorization and Evaluation. *Journal of Economic Psychology* 18, 271-287.

Spillers, F. (2004). Emotion as a Cognitive Artifact and the Design Implications for Products That are Perceived As Pleasurable. *Experience Dynamics*. Retrieved from <http://www.experiencedynamics.com/sites/default/files/spillers-emotiondesign-proceedings.pdf>

Statt, David A. (1997). *Understanding the Consumer: A Psychological Approach*, Basingstoke : Macmillan

Taylor, A. (1995). Porsche slices up its buyers. *Fortune*, 131, 24. Retrieved May, 2010, from <http://www.strategicbusinessinsights.com/vals/>

Trigg, A. B. (2001). Veblen, Bourdieu, and Conspicuous Consumption [Electronic version].
Journal of Economic Issues, 35, 99-115.

Voss, K. E., Spangenberg, E. R., & Grohmann, B., (2003). Measuring the Hedonic and
Utilitarian Dimensions of Consumer Attitude. Journal of Market Research., 40(3), 310-320.

Xue, L., & Yen, C. C. (2007). Towards Female Preferences in Design- A Pilot Study.
International Journal of Design, 1(3), 11-27.

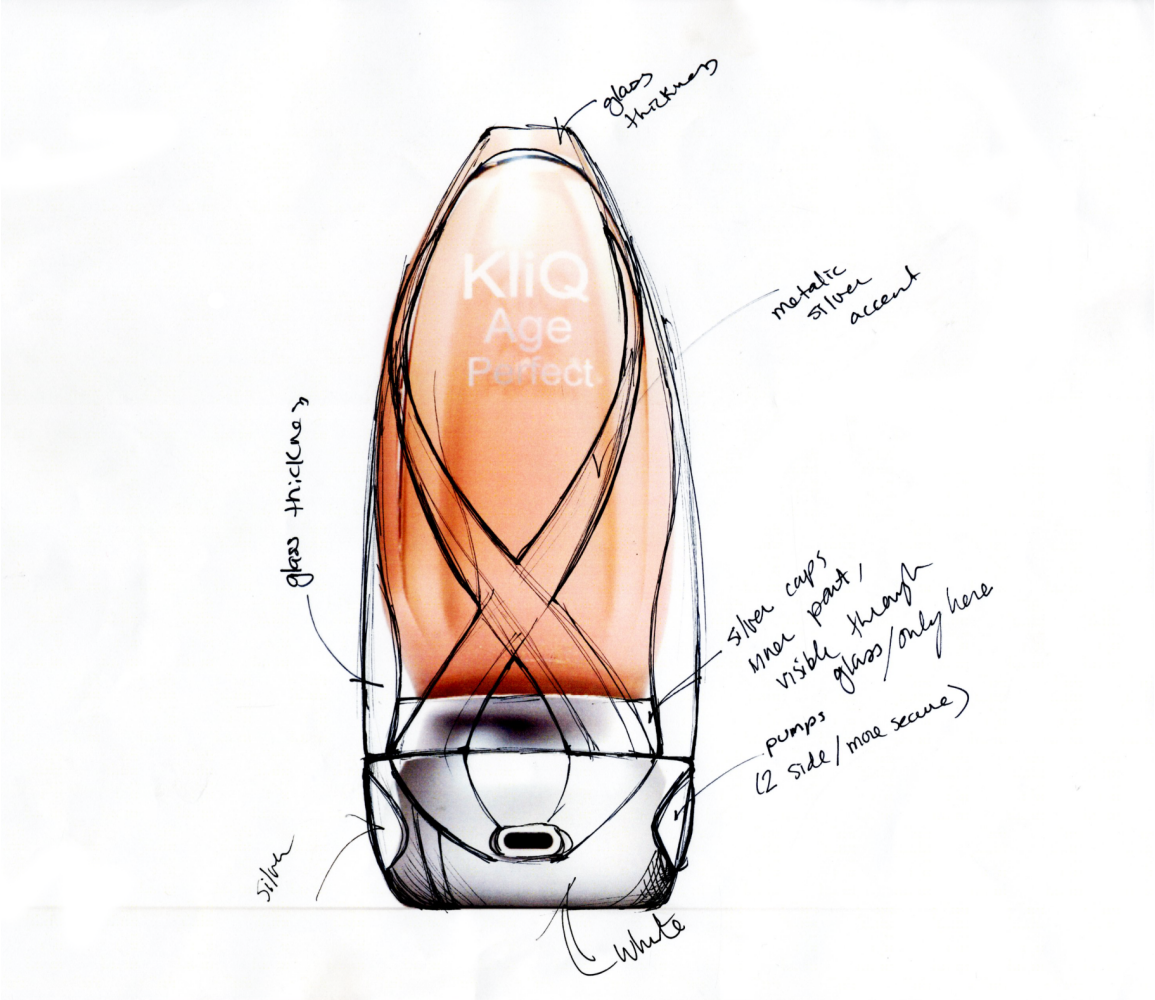
Appendices

Designs prior to research using no guides





Implementation of guides



Final designs using guides



LH Foundation

- Form should highlight function
- Variation in material thickness
- Use light colors or metallic
- Soft shapes and corners



I *need* to wear makeup to feel/look attractive

- Increase filler footprint as with “I love makeup it’s fun to try and learn new things”.
- Cover as little of the filler product as possible with lid
- Square (compact case)
- Variation in material thickness (visual weight to package)
- Classic look
- Integrate texture
- Not loud but still bold



I like makeup, but its not one of my favorite things.

- New trendy shape.
- Color accent.
- Innovative form.
- Fun and happy.



I love makeup! It is a toy, fun to play and learn. (LH)



I love makeup! It is a toy, fun to play and learn. (LH)