**The Relationship Between Color Cycles in Home
Furnishings and Apparel, 1969-2009**

by

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Abstract

The dynamics of fashion are present in many product categories, and color can be an important component in customers' selection decisions, including for apparel and home furnishings products. Color makes an emotional connection with customers, grabs their attention, and may increase purchase intention (Brannon, 2005). Color forecasters predict color direction and trends because research has found consistent change in color preference in all design fields which exhibit distinct cycles (Hope & Walch, 1990). Color trends have been said to move from apparel and accessories to home fashions and then to automobiles ("A Source," 1985). Linton (1994) said that apparel color cycles changed every two years and interiors cycles every seven to twelve, but with fast fashion and shorter product development times, color cycles now have shortened and overlap more between product categories.

Little scholarly research on color cycles exists; the few studies there are have looked at buildings and their interiors. Although color is an important component of fashion, and there is well established methodology for studying fashion cycles, there has been no research linking color and that methodology. Koppelmann and Kuthe used German interior design magazines to explore color sequences (Linton, 1994). Oberascher (1994) elaborated on that research, identifying sequenced waves of color preference in living areas from 1972-1992.

The purpose of my research was to explore the relationship between color cycles in apparel and home furnishings by applying the fashion cycle research methodology launched by Kroeber in 1919,. Four research questions were explored for the years 1969-2009. For apparel and home furnishings, they asked if (1) there were parallel color trends; (2) the lengths of color cycles were similar; (3) there was a time lag in the patterns of color change; and (4) the lengths of color cycles changed. Content analysis was used to identify color cycles found in pictures from 160 issues of two interiors magazines (*Better Homes and Gardens* and *Architectural Digest*) and 155 issues of two apparel magazines (*Cosmopolitan* and *Vogue*). Within each pair, one magazine was geared to a fashion forward audience and the other viewed more by mass fashion followers. Quantitative and qualitative content analyses were used to identify and then assess the colors found in 2,236 magazine pictures. Selected images exhibited a dominant color in one of 10 categories: yellow, orange, red, purple, blue, green, brown, grey, black, and white. Color classification was defined using the Pantone color system.

All colors were not seen equally in apparel and home furnishings. Black and red were observed the most in apparel, and brown and white in home furnishings. Blue was the only color seen comparably in both sectors. The least shown colors were orange in apparel and grey in home furnishings. Colors seen the most showed the longest cycles; those seen the least had the shortest ones and could disappear entirely. Observed cycles of 2-27 years led to categorization of 70 short cycles (up to 4 years), 28 medium cycles (5-9 years) and 11 long cycles (10 or more years). Long cycles could suggest designations as classics; some short cycles in less seen colors looked fad-like. Although some colors in apparel and home furnishings appeared to trend towards shorter cycles

nearing 2009, others could be trending longer or show no directional pattern. Fashion in color did not seem to be moving faster overall.

There was no clear, consistent evidence of parallel trends between apparel and home furnishings color cycles. Also, assessment of cyclical time lags did not support the general idea that trends move from apparel to home furnishings. Although there were some cases where this was suggested, there were others where the opposite was indicated. It did appear that when a color had a high, extended presence in apparel or home furnishings, it influenced its introduction or presence in the opposite category. Overall, this research showed that color cycles in these large consumer product sectors are complex phenomena that deserve more research.

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CHAPTER I INTRODUCTION

Color, like air and water, is an essential part of our universe. It has been found to be a top factor when fashion selection decisions are made. Color is a major player in establishing apparel products in the market by attracting attention and evoking symbolic associations and relationships. How a consumer reacts to a new product is largely mediated by the color. Color has been found to have psychological power, communicating to consumers through brand logos, advertising, packaging and product colors. Although color is all around the globe, in different cultures color can symbolize different meanings (Brannon, 2005).

Historically, fashion has been thought of as only what is worn on the body. Today fashion can be found anywhere. From graffiti riddled walls to college campus classrooms to living room walls, fashion is everywhere (Brannon, 2005). Fashion has the ability to touch all of consumers' aesthetic choices, from automobiles to housing to food (Sproles, 1981). Mediating factors such as technological developments, cultural shifts, economic conditions and changing gender roles have caused the concept of fashion to expand from its traditional focus on personal appearance. Fashion can be defined as a style that is popular in a particular time frame or a set of trends that have been accepted by a wide audience (Brannon, 2005). A style does not have to be classified as something that is worn on the body, but can be any aspect of a consumer's life where different, competing choices exist. Fashion can be operative in the styling an individual considers, for example, in apparel and accessories, automobiles, residence style and layout, décor in and out of the home, and personal technological equipment.

Since the Industrial Revolution, technology has been a catalyst for change within the fashion business. From the introduction of machine powered manufacturing to the invention of the internet, technology has profoundly influenced what is presented to the final consumer. Technology and innovation have enlarged the types of fabrics, designs

and finished goods that are available to the consumer. In the 19th century, synthetic dyes were introduced and gave manufacturers the ability to offer fabrics in a wider range of colors (Brannon, 2005). Scientific research has produced synthetic fibers with special properties that would not have been possible otherwise. With the introduction of the internet, shoppers have access to products available from different cultures and regions around the world.

Culture for this research study is defined as the behaviors, objects, and beliefs characteristic of a particular social, ethnic or age group (Kaiser, 1996). The United States has prided itself on being a "melting pot" housing a large mixture of diverse ethnic backgrounds. With so many different cultures and beliefs, this atmosphere provides the opportunity to introduce new fashion ideas that may deviate from the mainstream and gives visual exposure to new ideas and appearances that influence fashion gatekeepers. In addition to the rich diversity of the United States, since the beginning of the 20th century, the country has gone through historically transitional cultural changes. The early part of the century witnessed the culmination of the women's suffrage movement, and women's apparel changed dramatically in the 1920s. In the 1960s, the women's liberation movement grew, and the struggle to define gender roles was represented in fashion. The blurring of gender roles gave way to ideas such as androgyny in women's wear. Menswear also was influenced, leading to garments that were as colorful as women's garments.

The 20th century was also home to the Civil Rights movement. Being 'Black' became more than just a description of color. T-shirts with phrases like "Black is Beautiful" and "Black Power" became popular. Some African American males wore colorful dashikis from West African culture. African inspired clothing influenced the looks and products, including their colors, presented to all consumers.

Since then, colors have become symbols of various causes, and have influenced consumer products. Pink is associated with breast cancer. The Red campaign is the effort started by the Gap to fight AIDS in Africa. Due to its popularity, a multitude of products have become "Red" allowing consumers to show support through anything from sneakers to T-shirts to IPODs as long as they show the red logo.

Knowing that color is a significant factor in choosing products, it is important for businesses to perceive what colors are expected to be desirable in advance of their time in the market. In the past it was reported that color trends started on the runway in apparel and accessories, and several years later made their way into home interiors and then eventually into automobiles ("A Source," 1985). With shortened product development times now practiced by apparel and home interior manufacturers and illustrated most clearly in apparel by fast fashion retailers, this may not still hold true.

History suggests to us that fashion change of some sort is inevitable. Not many things about fashion are constant except for its ability to change. Although most products are determined to have life cycles, cycles in fashion are the most distinct (Sproles, 1981). Sproles (1981) defined fashion as brief cycles of trends adopted by groups of varying sizes during a specific period of time. Fashion theory hypothesizes that trends come from one of three directions; the bottom, the top or across. The bottom up theory suggests that fashion trends start from the streets with the everyday consumer and move with time to more sectors. The trickle down theory suggests that trends begin on the runways and trickle down over time to the general public. Conversely, the trickle across theory states that fashion influences spread horizontally rather than vertically, simultaneously affecting consumers in all socioeconomic groups (Brannon, 2005).

The idea of trends moving directionally implies something being started, spreading in use, and then disappearing. Brannon (2005) defined fashion cycles as the idea that distinguishable cyclic patterns reoccur over a certain period of time. Some of

the most obvious examples of these cycles are the revolving length in women's skirts in the twentieth century, hair length and shape, and waistline location. Some literature uses the terms trends and cycles interchangeably. However, in this study, trends are defined as fashions that are one directional (i.e. having increasing or decreasing visibility or usage), whereas cycles rise and fall, meaning they go in and out of acceptance.

Forecasting helps industry and academic professionals anticipate future developments by watching for signals of change in the environment and applying a framework to predict possible new trends, silhouettes, colors and styles (Brannon, 2005). No one color mode, either in apparel or the environment, is likely to prevail forever; therefore, cycles in color are inevitable. Color forecasting predictions are most frequently used in apparel but are also seen in home interiors, automobiles, and even technology. With the introduction of the fast fashion model of retailing, anticipating consumers' needs and wants in products is even more important. Fast fashion retailers commonly introduce new designs two to three times per week versus ten to twelve times per year in conventional stores (Miller, 2006). Fast fashion retailers enable consumers to purchase new trends at lower price points that would otherwise only be offered to celebrities. Fast fashion is an example of the trickle across theory which encompasses fashion followers and leaders having nearly simultaneous access to new trends (Brannon, 2005). Retailers such as Zara and H&M, create a "must buy" environment by offering limited amounts of items and anticipating the needs of the customer. Forecasting is imperative for retailers that are using the fast fashion model or for those who want to keep up with fast fashion retailers (Miller, 2006).

Every aspect of apparel fashion from color to the length of the skirt, shape of the silhouette, and placement of the waistband, is in constant motion. Trends are easily recognizable to the naked eye when looking at fashion magazines, style shows or internet blogs, but it takes more than a carefully trained eye to identify fashion cycles.

Purpose and Research Questions

Color is an important factor in making purchasing decisions. Therefore, tracking color cycles and consumer preferences continues to be an important activity for members of industry. Color forecasters are used to determining color direction and trends in various industries. Research has found a consistent change in color preference in all design fields which exhibit distinct cycles (Hope & Walch, 1990). In fashion, color cycles have been said to change every two years, whereas in interiors they last from seven to twelve years (Linton, 1994). Particularly with the introduction of fast fashion and shorter product development times, color cycles may be shorter and overlap more in the apparel and home fashion industry. However, there is no published research that substantiates or refutes this possibility.

Because color cycles have been noted but have minimal documentation, the purpose of this research was to explore the relationship between color cycles in apparel and home furnishings. The following research questions were investigated:

1. Were there parallel color trends in apparel and home interiors from 1969 to 2009?

2. Were the lengths of color cycles in apparel and home interiors similar between 1969 and 2009?

3. Was there a time lag in the patterns of color change in apparel and home furnishings from 1969 to 2009?

4. Did the lengths of color cycles in apparel and home interiors change between 1969 and 2009?

CHAPTER II LITERATURE REVIEW

Fashion Theory

Scholars explore theoretical explanations for fashion and fashion change to examine its causes and effects, its patterns, and the impacts changes have on consumers, including how those changes will influence purchasing decisions in the future. Robinson (1958) wrote that fashion theory looks into the motives that prod consumers into continual revision of their tastes in apparel and accessories.

Fashion cycle or trend theory has been developed around two time frames, long continuous trends that cross many years exploring the evolution of one style to the next, and short run spans of acceptance of particular styles in a brief period of time (Sproles, 1981). Long secular trends have often been seen in women's clothing (Kroeber, 1919; Richardson & Kroeber, 1940; Young, 1937). In the past, fashion theory has focused primarily on clothing, but analysts believe that the principles of clothing fashion can be generalized to a larger range of products and services (Sproles, 1981).

Fashion Cycle Theory and Research

Historical continuity is the constant evolution of new fashions, styles and trends from an extension or elaboration of a previously existing fashion (Brannon, 2005; Sproles, 1981). Therefore, new fashions are rarely an extreme change from the previous style, making it necessary to study long range cycles to identify distinct changes. In most instances, fashion has never changed suddenly but has demonstrated a slow, continuous process within well defined cycles (Young, 1937). For example, a major change in women's skirt length in a year would constitute a dramatic change in a short time span and would not be accepted. The process of fashion change does not have a destination but is a continuous evolution of thoughts, ideas and the spirit of the times. When an element of style is deserted, it later becomes a possible target for revival. As a

style, look or lifestyle moves further into the past, it becomes more likely to be used as inspiration for a new trend (Brannon, 2005).

Kroeber (1919) agreed with the scholars of his time when they noted the rise and fall of the arts is an example of "social phenomena that is expressed by nearly similar and presumably simple geometric curves" (p. 235). The research study by Kroeber was seminal in that no other researcher had conducted a systematic study to attempt to identify cycles in apparel fashions. Studies on fashion cycles that were conducted after Kroeber's work used his research as the basis for executing a systematic approach to implementing a qualitative study. Kroeber researched fashion cycles in evening dresses instead of day dresses because their function was consistent over the time period (preceding century) he considered. Like fashion, Kroeber believed history was patterned and wanted to use previous cycles in fashions as a way to measure cultural patterns. Through his study, Kroeber found that the major proportions of dress changed slowly and regularly. Those patterns were observed visually by measuring skirt widths, necklines, and their proportions in pictures.

Continuing Kroeber's work, Young (1937) studied women's typical street and daytime dresses from 1760 through 1937. Young hypothesized that there was less variability in women's day dresses than in women's evening dresses. Her study gathered evidence to support a finding that when typical ideas of dress were arranged chronologically and continuously over a long period of time, the changes followed a well defined set of rules. Young (1937) concluded that over the 178 years, there were only three central fashion silhouettes which succeeded one another in sequence. The changes happened in well-ordered cycles and lasted for approximately thirty years. The three central forms of dresses worn were distinguished by the shape of the skirts: hoop or wide circle, back-fullness effect, and tubular.

"Fashion in dress is a process of continuous slow change of typical annual modes, accompanied each year by innumerable slight variations from the dominant type" (Young 1937, p.109). The changes must strike a delicate balance between being different enough to outshine previous fashion but slow enough for followers to stay in step with their leaders. Young concluded that over the previous two hundred years, changes in fashion were uniform in length and constant in character. Having identified three cycles, Young hypothesized that the most recent fashions are remembered and cannot be successfully revived; therefore, a new cycle that comes in should be a reappearance of two cycles back.

James Laver (1973) wrote that prior to systematic research on fashion, many people believed the reason for fashion change was explained by the idea that women were frivolous and inconsistent, but through research shifts in fashion have been found to rarely be arbitrary and without thought. Fashion change embodies historical significance as well as practicality. Historians would agree that people chose clothing not in their desire to cover but in their interest in display. Since the fifteenth century the aim of fashion has been to emphasize various regions of the female body. According to Laver (1973), when that area of the body which is exposed by a fashion is no longer thought of as erotic, another part of the body is highlighted which was previously concealed or covered. He defined these erogenous zones as the point of interest for fashion that is just coming in. He asserted that the erogenous zone was continuously shifting and counted on fashion to pursue it, thereby creating a cyclical effect.

While some historians conducted research to identify the reasoning behind fashion cycles, others observed history to explain changes in fashion. Nystrom (1928) identified three major factors having an effect on the direction fashion change takes. These were categorized within the following clusters: dominating or outstanding events, dominating ideals affecting large numbers of people, and dominating social groups that

have significant influence on society. He described dominating events as wars, visits from famous people, new art movements, and world and international fairs. Events could influence fashion change in different ways, e.g., by inspiring new design ideas, such as military wear in women's wear, or expanding consumers to new products through world and international fairs. Dominating ideals were those that transcended one historical period. Over time they impacted a significant number of people and lasted through multiple historical periods; familiar examples include the classic Greek ideal of pure beauty, the Roman ideal of order and efficiency, and broadly accepted political philosophies or religious doctrines. The easily identifiable dominating groups were those that appeared to be in positions of leadership or authority over others, such as political officials, the nobility, and the clergy. Other dominating groups found to be influential were dominant generations (older or younger, depending on the time period), and the economically powerful who possessed wealth. Based on the philosophy that money and power influence fashion change, Nystrom (1928) wrote that in order for a fashion to be successful, it must suggest conspicuous leisure and expensiveness.

Richardson and Kroeber (1940) conducted a quantitative analysis study on women's evening dresses stylistic changes from 1605 to1936, expanding Kroeber's original study published in 1919. Like the earlier research, Richardson and Kroeber chose to explore women's evening wear, but over a longer period of time. Due to the intervals lacking contemporary pictures or portraits, the type of image sampled per time period varied. The researchers focused their analysis from 1787-1936 and extracted pictures from *Vogue, Harper's Bazaar* and *Costume Royal.* Richardson and Kroeber measured six dimensions of evening dresses: length of skirt or dress, length of waist, length of décolletage (neckline), width of skirt, width of thickness of waist and width of décolletage.

With this research, Richardson and Kroeber concluded that it took approximately 50 years for fashion to swing from one extreme to another, with a complete cycle (swing away from and back to a fashion) taking approximately 100 years. They suggested that there were two major parts in dress design: one component that was a differentiating factor from the previous year's design and a second component which was foundational and exhibited very little change from year to year. Dress style was hypothesized to be independent of creative and artistic minds and to fluctuate automatically without conscious thought.

While some research on fashion change has been done using original data, other studies have served as a building block based on earlier research. Lowe and Lowe (1982) built a mathematical model of stylistic change, identified as one of three cultural change processes, based on quantitative data collected by Richardson and Kroeber (1940). The model was used to evaluate Richardson and Kroeber's interpretations of their study of women's evening wear, as well as to analyze cultural change and patterns based on these findings. Lowe and Lowe (1982) found that while Richardson and Kroeber (1940) had captured some of the major points of fashion change in women's dress, there were several flaws in their analyses. Periods of oscillation were identified using visual analysis. Richardson and Kroeber used the coefficient of variance rather than the standard deviation to analyze the data. Both are used to measure the dispersion of data points and utilize the mean; however, the coefficient of variance represents the ratio of the standard deviation to the mean. Based on statistical analyses, Lowe and Lowe (1982) found that what appeared to be random change in fashion was not "random;" rather, it contained patterned trends. They referred to styles as an equilibrium system that structurally changes based on movement from one equilibrium point to another.

Robinson (1958) wrote that fashion is solely stimulated by the differences found between new and old designs. His approach to identifying fashion cycles was to observe changes in other categories such as art, architecture and automobiles. He proposed that fashions by definition have a short lifespan and are undoubtedly some reincarnation of past fashion significance. No matter what the point of emphasis or degree of fashion change, the actual change must guarantee that leaders will want to adopt it and that the change allows them to set themselves apart from followers. Based on Poiret's ideology, Robinson (1958) hypothesized that fashions died suddenly and without just cause because their success was based on the idea of originality. He called fashion a pendulum which swings between two extremes, overdressing and underdressing; when either one is reached, it swiftly retreats toward the other end. Robinson (1958) suggested that although there were differences in the way fashion and architecture changed, the length of their periods were almost parallel. He postulated that the theories of fashion change transcended product type and could be applied to automobiles, architecture and even (in 1958) home appliances. Ultimately, he concluded that product change due to fashion was inevitable.

Robinson (1976) set out to demonstrate that the inevitability of fashion change was not limited to women's apparel and that its influence could be seen in men's stylistic changes. He used Kroeber's (1919) seminal study as a basis for executing research determining cycles in men's beards. Robinson used pictures of men in the *London News* from 1842 to 1972 to track patterns in beards. He counted how many times in a year one of the following features was shown: sideburns alone, sideburns and moustache in combination, beard, moustache alone and clean shaven. Based on the data collected, Robinson found particular styles exemplified long periods of disappearance or dormancy after their decline. He reported that the length of the upswings of a style in men's facial hairstyles were almost parallel to Kroeber's (1919) figures on dress dimensions.

Comparing his data on changes in men's facial hair to Kroeber's (1919) results on fashion cycles, Robinson (1975) posited that an effective product planner has to foresee the design cycle through which their product will move. He concluded that there were two principles which explained how fashion works: (1) fashion cycles are inevitable; and (2) fashion cycles are independent change that will happen regardless of outside forces such as technological inventions and innovations, or social uprisings. He believed that fashion change happened independent of external forces. Simply stated, stylistic changes in fashion were unstoppable.

Thus, by the 1980s, scholars were suggesting that identifying future trends could be aided by looking at data on past trends over a long range of time. The most accepted method was based on Kroeber's (1919) study that measured illustrations to generate data. Belleau (1987) conducted a content analysis of women's day dresses from 1860 to 1980 to identify cyclical fashion movement using a different measurement technique. Her instrument evaluated six major garment characteristics: skirt length, waist emphasis silhouette, sleeve fit, bodice fit and skirt fit. Four illustrations per year were analyzed from *Vogue* and *Harper's Bazaar*. Based on the data, Belleau (1987) found statistical evidence of fashion cycles in women's day dresses from 1860 – 1980. Waist length and silhouette showed some cyclical movement; however, the most prominent cycles appeared in skirt length.

Docherty and Hann (1993) also used a different method to conduct a quantitative analysis of women's hem lengths in skirts. They hypothesized that frequent changes in fashion chronically occurred in a sequential sequence. Hem lengths were classified into five categories: above the knee, on the knee, below the knee, calf length and ankle length. In order to identify any relationship patterns within the data, the researchers calculated Pearson correlation coefficients. This coefficient is used to determine a correlation between two variables using the standard score and degrees of freedom.

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Docherty and Hann analyzed approximately 5000 pictures in *Vogue* magazines from 1946 to 1990. They concluded that very few trends emerged in the hem length data.

Docherty and Hann (2000) expanded on their 1993 research by carefully analyzing previous literature on stylistic changes in women's apparel products. Their purpose was to address a variety of outstanding questions about alternating patterns in fashion. Based on perceived inconsistencies in measurements, data sampled and sample size, Docherty and Hann (2000) concluded that Kroeber and Richardson's (1940) conclusions could not be supported. In an attempt to rectify the inconsistencies found in previous research, Docherty and Hann (2000) conducted another study on variations in hem lengths. For this study, the researchers analyzed women's skirt lengths in British *Vogue*, *and Harpers* and *Queen* magazines from 1980 to 1995. The same hem length categories as their initial study were utilized. Three measures were taken for analysis: percentage of the frequency a particular hem length was seen in a particular period, the recurrence of a particular hem length in a period, and the range of hem lengths that existed during a particular period. Docherty and Hann (2000) concluded that a product category can have more than one design that is offered and accepted by the consumer. The researchers agreed with their previous findings in that there was no empirical data to suggest hem lengths in women's skirts follow an apparent pattern.

Very little research on cyclical fashion changes has incorporated cross-cultural comparisons. Balkwell and Ho (1992) explored variations in dress dimensions and the relationship between Western and Taiwanese dress during the same time period. Three models of fashion variation were compared to determine which best explained dress dimensions in the two cultures. The models were classified as follows: cyclical modes of dress dimensions that were self-generated, economic models of dress dimensions, and demographic and economic models of dress dimensions. Illustrations for this study were extracted from multiple sources. Data were collected from fashion magazines available

from 1966 to 1986. Twenty–four magazine photos per calendar year of women's daytime dresses were analyzed.

The Balkwell and Ho (1992) study duplicated Kroeber's (1919) and Richardson and Kroeber's (1940) method of measuring dress length, dress width, waist length, waist width, décolletage depth, and décolletage width. The silhouette shape measurements were taken using a small representative sample of the illustrations of the categories identified by Young (1937). In order to compare economic factors, the gross national product, personal consumption expenditures and stock market prices were gathered for each year for each country. Demographic data were generated by calculating the median age for each country. Based on data analysis, cycles were apparent in skirt length and somewhat in décolletage length. Taiwanese cycles appeared to lag behind the U.S. by three years at the start of the period and two years at the end. Balkwell and Ho did not find consistency in other dress dimensions in cycles or between the two cultures,

Curran (1999) noted that most research about fashion cycles had been performed in the U.S. The purpose of her study was to identify fashion cycles in European countries by analyzing skirts lengths from 1954 to 1990. With this research, Curran sought to explore if there were differences between markets in Europe and the U.S. She analyzed illustrations from mail order catalogs in the United Kingdom and Germany over a 37 year time frame. Data were collected by measuring skirt lengths and widths of autumn day dresses. Curran adapted Kroeber's method of measuring skirt width and measured ten clothing ensembles for each year analyzed. She found that skirt lengths were very similar in both countries and that European fashions also adhered to the same fashion cycles as the U.S. However, skirt widths showed very little variation over time and did not exhibit much of a pattern. The results supported using studies from the United States to evaluate fashion change in European countries.

Besides Robinson's (1976) study, very few researchers have looked at stylistic changes in products outside of apparel. Ulrich and Lee (2008) conducted a study that examined cycles in floor coverings from 1950 to 2000. Two magazines were used to gather data, *House Beautiful* and *Better Homes and Gardens.* Three or more choices were assigned to five categories created by the researchers to answer research questions. The five categories were types of floor coverings, rug size, room type, carpet or rug structure, and rug or carpet pattern. A content analysis was performed on more than 1000 pictures by determining the frequency of each category created. Ulrich and Lee concluded, based on graphed patterns, that there was some support of patterned changes in floor coverings. Within the data, patterns of short and long term cycles were observed categorized as one-directional trends, "normal" or bell shaped curves, and flattened (suggesting a classic) curves.

Although research has indicated that cycles and trends do exist for apparel and other products, very little research has been done on why these cycles and trends occur in a post-modern era. One of the most recent theories of fashion change was created by Kaiser, Nagasawa and Hutton (1995). Their symbolic interaction (SI) theory of fashion was formed to explain the conditions that influence fashion changes in a postmodern era. The SI theory of fashion change simply states that in periods of societal transition, cultural ambivalence is increased. In order to express this ambivalence, appearance modifying commodities, which are defined as clothing, accessories or cosmetics, emerge in the marketplace. As cultural ambivalence increases, the heterogeneity or diversity of appearance modifying commodities will increase. The diverse modifying commodities are used by consumers to create appearance styles that convey a high degree of symbolic ambiguity. Through collective negotiation in a given group, styles that are meaningful will be adopted by a majority of the consumers within the group.

However, if the meaningful appearance style no longer resolves the ambivalence, the process will cycle back to the beginning.

In 2000, Buckland conducted a case study using residents of Akron, Ohio during World War II to explore the application of the SI theory of fashion. She stated that historical evidence did not lend itself to formal testing of the theory, but could show support to corroborate it. She performed a qualitative study using newspaper articles from the *Akron Beacon Journal* over a two year time period. Using the newspapers, the study provided detailed analysis on how each of the five principles (human ambivalence, appearance-modifying commodities in the capitalistic marketplace, symbolic ambiguity, negotiation and adoption and ongoing dialectic) were met, thereby stimulating the emergence and adoption of pants in women's wear.

<center>Color Research</center>

Historically research in fashion and color cycles has been executed independent of each other. Hope and Walch (1990) defined color "as the quality either of an object that reflects light….or of a medium that filters light" (p.64). Regardless of background, accurately describing color can be difficult for even the most trained eye. Several characteristics often used to describe color are hue, value and saturation. The hue of a color can be used to determine similarities or differences of a color. For example, although salmon, fuchsia and maroon are all different color names, they share a similar hue (red). Saturation refers to the intensity of a color, and value is the lightness or darkness of a color (Hope & Walch, 1990).

There has been research on color and its effects on consumers. Studies have found color to be a significant factor when making purchasing decisions (Garber & Hyatt, 2003). Color is an important part of product design. It is advantageous for a product planner to anticipate the colors that will appeal to the discerning consumer. Studies that have involved color and fashion have focused primarily on color preferences in clothing.

Radeloff (1991) explored the relationship between color attributes and color preferences in apparel fabrics. The researcher elicited responses from over 100 students on color preferences using fabric swatches of varied hue, value and chroma, basing those colors on the Munsell Book of Color. Lind (1993) looked at similarities between abstract and clothing color preferences. More than 130 students were tested using color samples from Munsell representing 10 colors from the color wheel. Radeloff (1991) found color preferences in apparel based on seasons. Fabrics grouped in winter and summer hues were preferred over those in autumn and spring hues. Similarly, Lind (1993) found respondents in the study preferred cool colors in apparel such as purple-blue and blue.

Little scholarly research has explored whether regular color cycles or patterned trends exist across products. Oberascher (1994) reported on several German researchers who explored color cycles. This body of literature was initially discussed in the early 1980s by Werner Spillmann. He published an article in a German architecture magazine stating that color, like a pendulum, "swings between two extremes of chromatic and achromatic." Darmstadt, who studied past color concepts in buildings, concluded that color change was constant and cyclical. Oberascher (1994) reported that Darmstadt identified four distinct color cycles occurring between the mid-1800s and the late 1900s, Each cycle lasted for a 15 to 25 year period, beginning with multicolored, highly chromatic colors. Less chromatic colors followed; brown tones were next; and the cycle ended with achromatic colors.

Kopplemann and Kuth (as described by Oberascher, 1994) conducted a study which yielded results similar to Darmstadt by looking at the cover pages of a German interior design magazine. The researchers analyzed publications from 1970 to 1985. Their study was based on the premise that trends in color are captured by major journals in interior design in the cover page design. Oberascher (1994) based his study on color cycles in interiors on the work of Kopplemann and Kuth. However, he felt that looking at

just the covers of interior design magazines was insufficient for accurate analysis. In an effort to identify dominant color cycles in home furnishings, interior design journals were evaluated from 1972 to 1992. Each picture was evaluated to determine dominant colors based on the Natural Color System, counted and then assigned a color. Based on the data analysis, Oberascher concluded that color preference exhibited cyclical behavior. From his findings he was not only able to confirm conclusions made by previous researchers, but to expand on those conclusions.

Oberascher's (1994) data analysis revealed the following patterns of color preferences in living areas between 1972 and 1992:

"1972 highly chromatic colors, multicoloredness

from 1974 darker colors

from 1976 earth colors, especially brown tones

from 1979 lighter colors, light, natural colors, beige, off white

from 1981 trend toward pure white

from 1984 achromatic colors (pure white, grey, anthracite, black)

from 1988 chromatic colors in combination with highly chromatic colors

from 1991 shades of purple and an increase in highly chromatic colors"

(Oberascher, 1994, p.37)

Oberascher found that the color cycle began with a chromatic phase which included multicolored opposing and contrasting hues in intense values. The darkening phase was next which was also chromatic and multicolored; however, colors were darker and less intense. The brown phase was dark, as well, but very limited in hues, and similarities existed in those hues. After that, colors lightened and were more varied. Colors in this phase were usually white, beige and pastel, and, therefore, it was labeled the lighter phase. In the following achromatic phase, white, grey and black were the dominant colors. The colors from the achromatic phase were paired with highly chromatic colors

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and produced the achromatic-chromatic phase. The last phase in the cycle was the

purple phase, in which it could be solitary or combined with other colors.

While a few researchers have looked at identifying color cycles, others have

explored the feasibility of using past color trends to predict future trends. Stansfield and

Whitfield (2005) wrote that the premise of color forecasting is that past color

consumption is in some type of order and that order is seen in present living conditions.

The purpose of their research was to identify color trends in residential interiors in

Australia and to explain the cause of those trends. A variety of sources, such as store

catalogues, paint charts and brochures, were used to collect data covering a 100 year

time span. The researchers concluded that hue exhibited the most consistent change

over the 20th century. However, no cycles or trends in color were observed in the data.

Additionally, changes in color preference could not be attributed to any one specific,
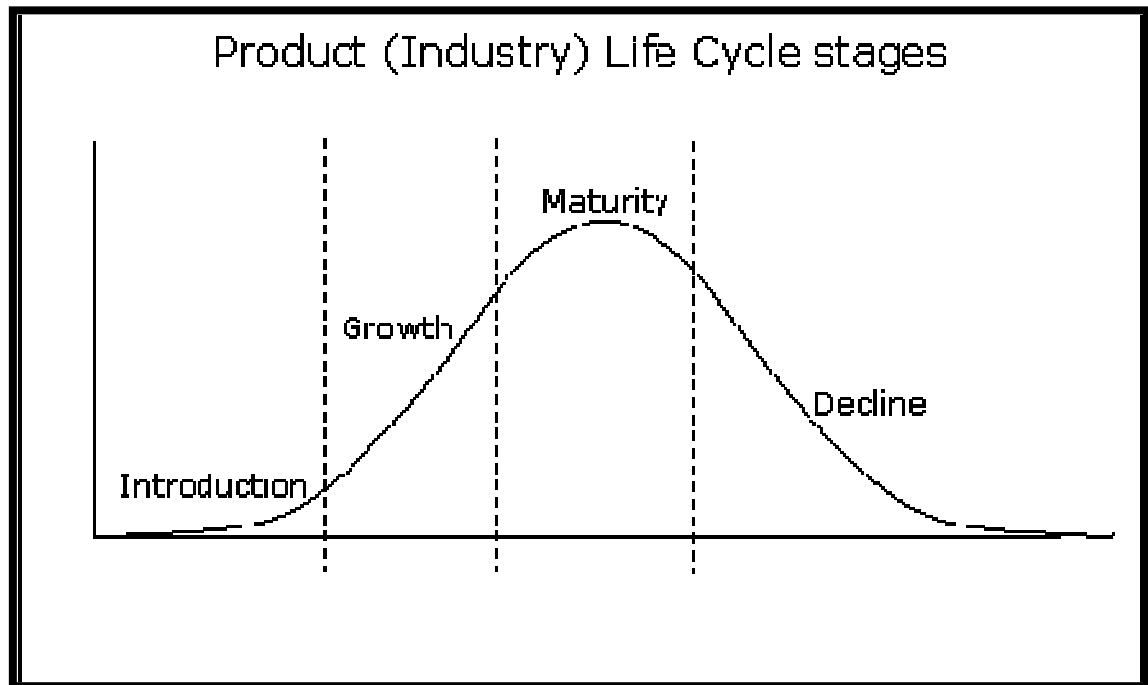
external occurrence.

Figure 1: Product development life cycle

CHAPTER III METHODOLOGY

This study explored color cycles in apparel and home furnishings. The research was conducted by using content analysis to identify dominant colors found in pictures from four different magazines. The research looked at color historically to the present, invoking a combined qualitative and quantitative method. Pictures were analyzed from 1969 to 2009. This time frame was chosen based on the phases identified by previous research. Oberascher (1994) found in his research of color cycles in interiors that a new color cycle started in the early 1970s. Cycles found began with a phase of chromatic multi-colors and ended in the early 1990s with a phase described as variations of purple. Since that time span was approximately 20 years, a period of 40 years was thought to be adequate according to the literature to investigate any cycles or trends in color in apparel and interiors and possibly to identify multiple cycles.

Data Sources

Two magazines were chosen to sample the apparel area and two for the interiors area with the goal of identifying publications that had an established presence in the consumer marketplace. Because most of the studies conducted on fashion and color cycles used pictures as the primary source of data, the magazines had to regularly present picture evidence. Final selection was based on length of time in publication (i.e. some current magazines having started since 1969), readership profile and circulation. Selected publications had to be in circulation throughout the designated time period. Readership profile and circulation were considered in selection of the two sets of magazines. The four choices were *Better Homes and Gardens, Architectural Digest, Cosmopolitan* and *Vogue.* Based on Magazine Publishers of America 2005 ranking, *Better Homes and Gardens* is the fifth ranked magazine in the U.S. in circulation. *Cosmopolitan* ranked 18th and was the highest ranking women's magazine that had some focus on fashion. Due to the small target audiences on which *Vogue* and

Architectural Digest concentrate, these magazines did not rank high on the circulation list. *Vogue* was 72nd and *Architectural Digest* did not make the list (which cut off at 100). These two magazines have small target audiences but are geared toward apparel and interiors sector leaders and fashion-forward consumers.

Vogue is a fashion magazine that also addresses lifestyle and related design topics. It is published by Conde Nast Publications. *Vogue*, now issued monthly, was first published in 1892 as a weekly publication and was later picked up by Conde Nast Publications. This international publishing company issues many different magazines, including *Lucky*, *Modern Brides, Vanity Fair, W* and *Architectural Digest*. The latter is a monthly magazine which focuses on interior design. It has been in existence for almost 90 years and is revered as representing the elite in the field of interior design. *Cosmopolitan* (or *Cosmo*) is published by the Hearst Corporation and was first offered in 1886. Although *Cosmopolitan* is considered primarily a women's magazine, it gears a regular portion of its publication to fashion and beauty. *Better Homes and Gardens* is published by the Meredith Corporation, with its first publication having been in 1922. It focuses primarily on the home environment, and besides an interiors segment, also includes cooking, gardening and healthy living.

The two apparel and two interiors magazines were chosen to represent different facets of the consumer products design business. One set, *Vogue* and *Architectural Digest*, is geared to a fashion-forward audience, whereas the other set, *Cosmopolitan* and *Better Homes and Gardens*, are geared to larger audiences, linking them more to mass fashion followers. Both interior magazines are designed to provide their target consumers with ideas, suggestions and information on furnishing and decorating their homes. *Vogue* prides itself on being an international leader in the fashion arena and is primarily focused on providing the reader with cutting edge information on fashion.

Although, fashion advice is not the primary focus of *Cosmopolitan,* it reports trends, suggestions, ideas and information on the trends in apparel fashion.

Content Analysis

Content analysis is the process of determining meaning, purpose, or effect by studying and evaluating the details and implications of the content or recurrent themes presented in written or visual material. Most of the published literature on fashion cycles has elected one of two basic approaches. The first approach involves researchers creating predefined categories and then counting and analyzing data based on those categories. The second approach forces the researcher to use the data to create categories or themes in the data. Hesse-Biber and Leavy (2006) wrote that most analysis methods cannot be applied both qualitatively and quantitatively; however, content analysis is one exception. This provides more options methodologically, including a hybrid of quantitative and qualitative approaches.

The method used in this research study was both qualitative and quantitative. Hesse-Biber and Leavy (2006) described quantitative research as linear, having predetermined steps, whereas qualitative research is spiral, allowing more flexibility for the researcher to create themes from the data by moving in and out of the data. In this study, assigning pictures to a range of hues was a visual decision; counting the frequency of each hue was a quantitative process. A computer was used for recording and developing the analysis of the data collected for a final qualitative assessment after having graphed the data.

Procedure

Sample Selection

Purposive sampling was the method used for identifying pictures within both apparel and interior magazines. Conducting purposive sampling involves selecting particular data items with a specific purpose in mind (Neuman, 1997). In this sampling

process, the reasoning for selections must be clearly stated and maintained. The original

monthly issues of *Cosmopolitan, Better Homes and Garden* and *Vogue* were obtained

from the Ralph Brown Draughon Library at Auburn University. Original copies of

Architectural Digest were obtained from the Library of Architecture, Design and

Construction at Auburn University. Two issues, April and September, were selected

each year per magazine. A maximum of thirty-two pictures per product category per year

were to be selected. The first eight pictures that matched the criteria in each issue were

to be selected for analysis. If eight appropriate pictures were not available in an issue,

then no fewer than five pictures were to be chosen. However, if five pictures were not

found to match the criteria, the next monthly issue was to be used to collect the

remaining pictures (i.e. May or October). If a total of five pictures could not be found in

the next monthly issue, the previous monthly issue was to be used. The research plan

was to evaluate at least 800 photos but no more than 1280 per product category.

Specifications for selecting pictures were developed by the researcher and her

advisor, and then presented to her thesis advisory committee. Of the four advisors, two

were specialists in the area of Apparel Design and Merchandising, and two were in

Interior Design. Because pictures of rooms tended to present more items or surfaces

than apparel pictures, the researcher's committee pre-tested the proposed

specifications. Each member independently viewed nine home furnishings pictures from

the selected magazines and identified that either the picture did not have a clearly

dominant color or what the dominant color was. Discussion of the pictures'

characteristics led to refinement and finalization of the criteria for choosing pictures from

the interior magazines. They were as follows:

1. Pictures had to represent a living space. For this research, a living space was

   defined as a living room, dining room, great room, family room, bedroom or

   kitchen.

2. Pictures could be on editorial pages or in advertisements.

3. Pictures had to be at least one-fourth of the page and had to clearly present one dominant color family.

4. Materials, including wood, brick, and stone surfaces, were not included in the color assessment unless they were painted or otherwise colored outside their naturally existing range of colors. This included walls, paneling, floor surfaces, cabinets, fixtures, furniture, and window treatments.

5. A color was considered to be dominant if at least one of the following conditions was met: (a) the color family was represented in more than 50% of the items being evaluated (i.e. not including those identified in #4) in the picture, and/or (b) the color family was used the most consistently throughout the room.

6. Pictures in which color identification might be influenced by the photographers' special lighting effects (e.g., spotlights, night lighting) were not to be chosen.

For interior pictures, living spaces were chosen because these are areas that are decorated the most often and provide more variety in color and furnishings. Living spaces are also frequently depicted in magazine advertisements, articles and editorials.

The criteria for choosing pictures from the apparel magazines were as follows:

1. Pictures had to include a body form that was fully clothed. Pictures that were only of accessories were excluded from selection.

2. Pictures could be on editorial pages or in advertisements for companies that manufactured or sold clothing or related accessories.

3. Pictures had to be at least one-fourth of the page and had to clearly present one dominant color family.

4. A color was considered to be dominant if at least 50% of the items evaluated in the picture were from the color family. When photos were analyzed for the dominant color, metal accessories such as gold or silver were not considered.

Home furnishings and apparel magazines were to be viewed under the same lighting conditions in the same room of the Library.

Color Assignment

Each selected picture was assessed and assigned a dominant color. Colors were categorized into the following hues: yellow, orange, red, purple, blue, green, brown, grey, black, and white. The Pantone color system was used to identify the hues. The Pantone system represents the range of warm/cool and dark/light colors a hue can have. The color system is numbered and contains seven different variations on each index; these may represent a different saturation or value of the color. Under each color there is a six digit number. The first two digits represent the lightness of the color; the second two represent the hue, and the last two are the chroma of the color.

The researcher tentatively divided all Pantone color index cards into the 10 color families. The advisory committee viewed and discussed the range of cards specified for each color. Some adjustments to the dividing lines between colors were arrived at through discussion by the committee except for blue and green. The color cards were shown to two additional design faculty, and the decision of the majority of the six faculty was accepted. Table 1 shows the range of Pantone color index cards assigned to a particular color. Figure 2 provides an example of the form used for recording data during collection.

Table 1. *Color assignments*

Color	Index Range
Yellow	1 – 11
Orange	12 – 56
Red	57 – 88
Purple	89 – 124
Blue	125 – 165
Green	166 – 224
Brown	225 - 230
Gray	231 – 239
Black	240 - 243
White	244 - 246

	Yellow	Orange	Red	Purple	Blue	Green	Brown	Gray	Black	White
SPR_COSMO1										
SPR_COSMO2										
SPR_COSMO3										
SPR_COSMO4										
SPR_COSMO5										
SPR_COSMO6										
SPR_COSMO7										
SPR_COSMO8										
FALL_COSMO1										
FALL_COSMO2										
FALL_COSMO3										
FALL_COSMO4										
FALL_COSMO5										
FALL_COSMO6										
FALL_COSMO7										
FALL_COSMO8										

Figure 2. Data collection instrument

Data Analysis

Four research questions were created for this study. SPSS, a statistical package, was used to complete data analysis. Counts for the two interior magazines and for the two apparel magazines were summed for each year. Pictures with multiple equally dominant colors were counted but were not to be included in the final content analysis as there was no way to accurately graph multiple colors. The data collected and the resulting graphs were used to answer the four research questions.

Research Question One: Were there parallel color trends in apparel and home furnishings from 1969 to 2009? Frequencies of each dominant color that appeared in apparel and interiors were converted into percentages of total incidence. The percentages were graphed per color per year. Graphs were visually analyzed for similarities.

Research Question Two: Were the lengths of color cycles in apparel and home furnishings similar between 1969 and 2009? The color graphs were visually analyzed to identify complete cycles. Then the number of years delineating each cycle was calculated so that lengths could be compared for each color.

Research Question Three: *Was there a time lag in the patterns of color change in apparel and home furnishings from 1969 to 2009?* The cycles found on the graphs for each color were visually analyzed to compare the beginning, peak, and ending points of apparel and home furnishings patterns. Additionally, comparison of the actual years of incidence could be considered to answer this question.

Research Question Four: *Did the lengths of color cycles in apparel and home interiors change between 1969 and 2009?* The lengths of cycles calculated to answer Research Question Two were assessed. Cycle lengths through the 40 years were analyzed to look for patterns of shortening or lengthening.

CHAPTER IV DATA PRESENTATION AND ANALYSIS

The purpose of this study was to explore the relationship between color cycles in apparel and home furnishings. Original printed copies of the monthly issues of *Cosmopolitan*, *Vogue*, *Architectural Digest*, and *Better Homes and Gardens* from 1969 to 2009 provided the data for examining dominant colors in pictures of apparel and home furnishings. Methodologies from previous research on fashion cycles were used to direct the collection and analysis of data.

Data Collection and Description

Sample Description

A total of 315 issues were viewed for this study. Eighty issues each of *Vogue, Better Homes and Gardens*, and *Architectural Digest* and 75 issues of *Cosmopolitan* were reviewed to gather pictures that demonstrated dominant colors in apparel and home furnishings. Two monthly issues were selected from 1969-2009 for each magazine. At least five, but no more than eight pictures which clearly displayed color dominance were chosen from each issue. Thus, the minimum number of pictures chosen in each year for home furnishings or apparel was 20, and the maximum was 32. There were just two years in the study period that yielded only the minimum number of pictures; this occurred for apparel in 1982 and 1992. Sample sizes for all other years for apparel and all years for home furnishings totaled more than the minimum.

Because colors can appear differently based on lighting, all the magazines available at Auburn University were collected in the same room and under the same lighting at the Ralph Draughon Library Graduate Study Office. The one exception to this setting occurred because the Ralph Draughon Library did not have the complete collection of *Cosmopolitan* magazines. Therefore, 26 years of data were collected at the Harold Washington Public Library in Chicago, Illinois. A location in the library with lighting as similar as possible to the Library at Auburn University was used. Some

adjustments to or gaps in data collection occurred, including selection of fewer than five

pictures from one issue, for the following reasons:

- Earlier issues of *Better Homes and Gardens* and *Cosmopolitan* contained more
  black and white photos than later issues.

- Some April issues of *Architectural Digest* were dedicated to celebrity homes from
  the past.

- The October 1999 issue of *Cosmopolitan* was used because the September
  1999 issue was not available.

- No data were collected from *Cosmopolitan* for 1982, Spring 1983, or 1992
  because original (color) printed copies of those issues were not found. Apparel
  pictures for those time points came from *Vogue* alone.

A total of 2,260 pictures provided the sample for the study. Fifty-one percent

(1,158) of the pictures were from *Cosmopolitan* and *Vogue.* The remaining pictures

were chosen from *Better Homes and Gardens* and *Architectural Digest*. At least ten but

no more than 16 photos were chosen per magazine per year. Data were collected from

pictures by using a data collection sheet (see Figure 2 in Chapter 3). Pictures were

classified by color families in the following ten categories: yellow, orange, red, purple,

blue, green, brown, grey, black and white. Pantone Color cards were used to categorize

the photos by color. The study's findings are limited by the fact that color is sometimes

difficult to distinguish. For example, the researcher sometimes found it difficult to

distinguish between blue and green. The beginnings and endings of color families (in

reference to the Pantone Color cards) are shown in Appendix A.

Data Analysis

Data were gathered using the data collection sheet created in Microsoft Excel,

and frequencies were tallied in Microsoft Excel for analysis. Frequencies were

calculated for each color family for each year for the two categories of apparel (totaling *Vogue* and *Cosmopolitan* data) and for home furnishings (totaling *Better Homes and Gardens* and *Architectural Digest* data). Because exactly the same number of apparel and home furnishing pictures was not collected each year, the counted numbers of each color family were converted into percentages of the total number of pictures viewed for each year. This percentage incidence data were graphed for visual analysis and comparison of color patterns.

Results

Table 2 shows the actual incidence of pictures (frequency and relative percentage) by color and product category and provides the ranked total incidence (according to the percentage incidence). Figures 3 through 12 display the graphed results for the ten color families. Each graph depicts the proportional (percentage) incidence of one color family, with solid lines showing home furnishings and dashed lines representing apparel. Thus, in each category (apparel and home furnishings) in each year, the incidence of all colors adds to 100%. To address each research question, the color family results will be discussed separately for each research question, and a unified summary will be provided at the end of each research question section. In the description of the findings, the terms "incidence" and "level" will be used to indicate high and low points in observations of images in which the given color was dominant.

Table 2

Frequency, Proportion and Rankings of Home Furnishings and Apparel Colors, 1969-2009

	Home Furnishings	Apparel
Yellow	113 10% 5	44 4% 9
Orange	36 3% 8	36 3% 10
Red	103 9% 6	202 17% 2
Purple	34 3% 9	117 10% 5
Blue	134 12% 3	166 14% 3
Green	124 11% 4	63 5% 7
Brown	275 25% 1	146 13% 4
Gray	29 3% 10	44 4% 8
Black	39 4% 7	224 19% 1
White	215 20% 2	116 10% 6
TOTAL	1102 100%	1158 100%

Figure 3. Yellow: Incidences of yellow in home furnishings and apparel

Figure 4. Orange: Incidences of orange in home furnishings and apparel

Figure 5. Red: Incidences of red in home furnishings and apparel

Figure 6. Purple: Incidences of purple in home furnishings and apparel

Figure 7. Blue: Incidences of blue in home furnishings and apparel

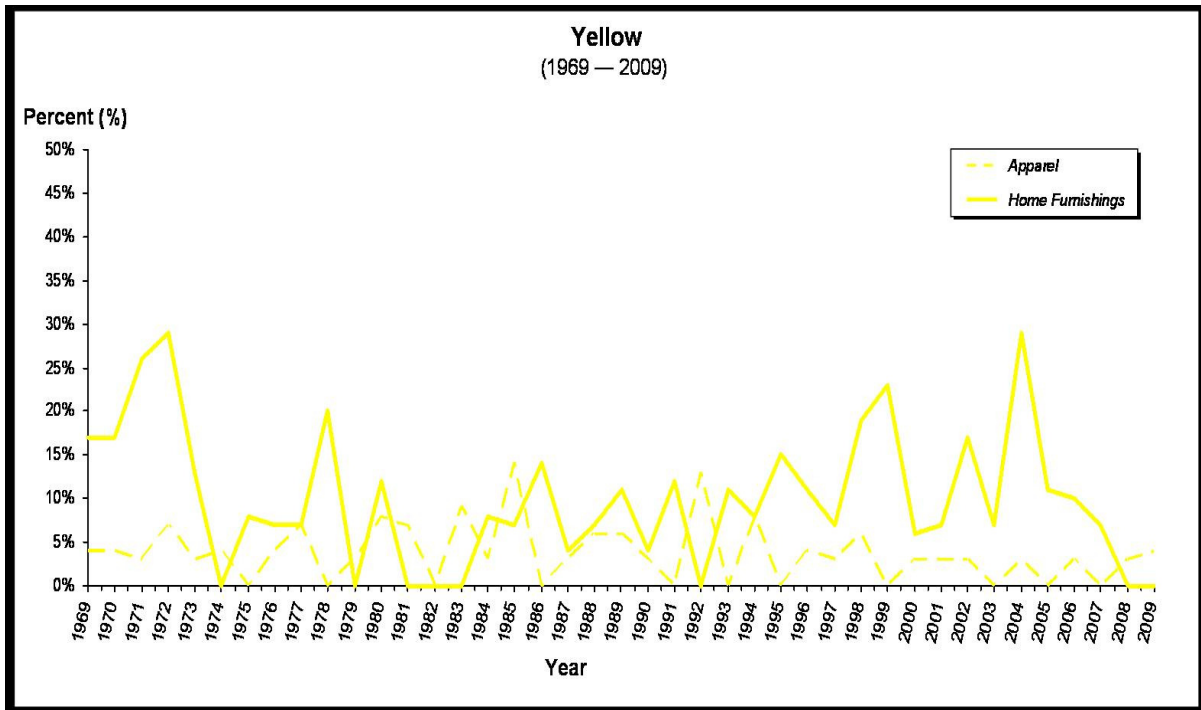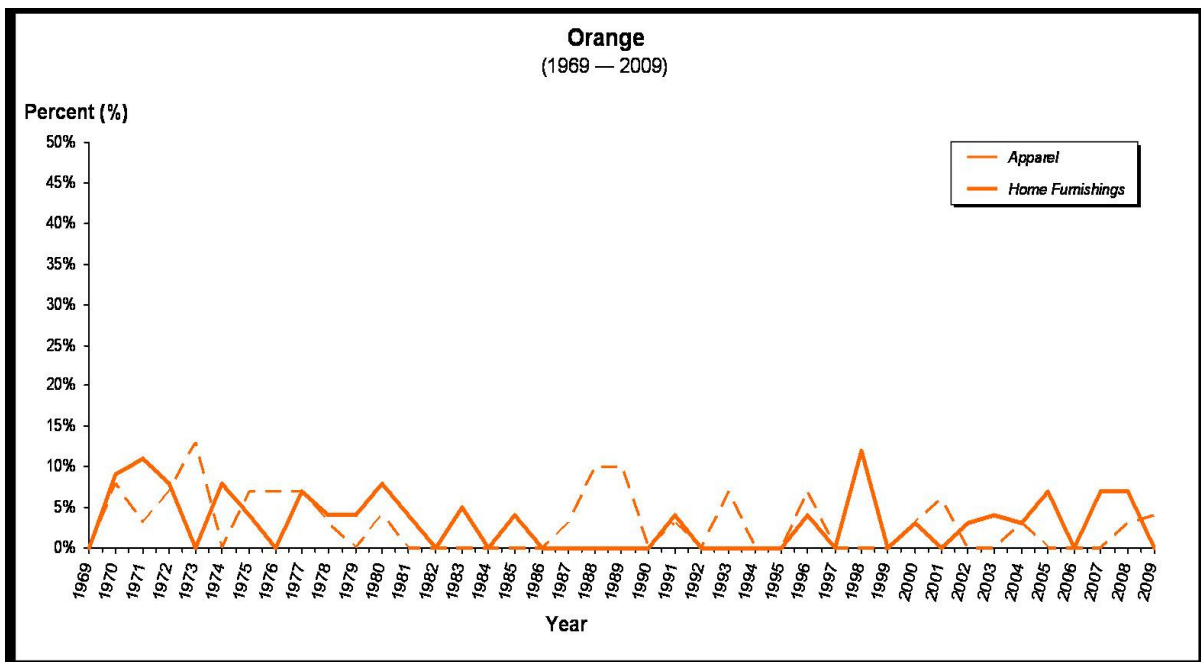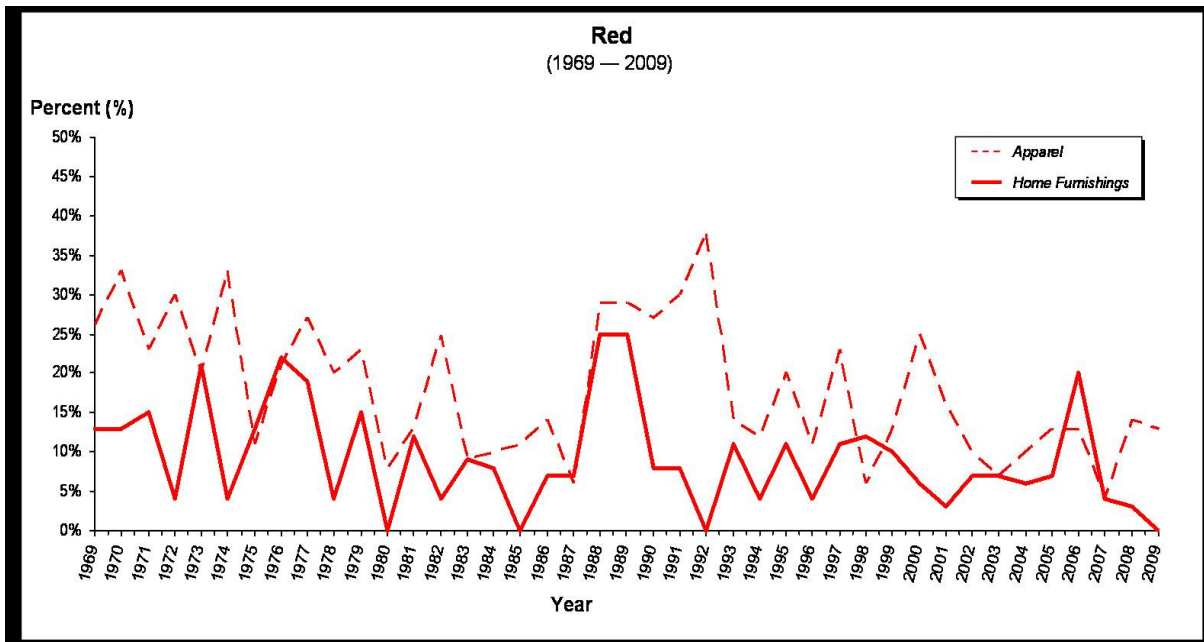*Figure 8*. Green: Instances of green in home furnishings and apparel

Figure 9. Brown: Incidences of brown in home furnishings and apparel

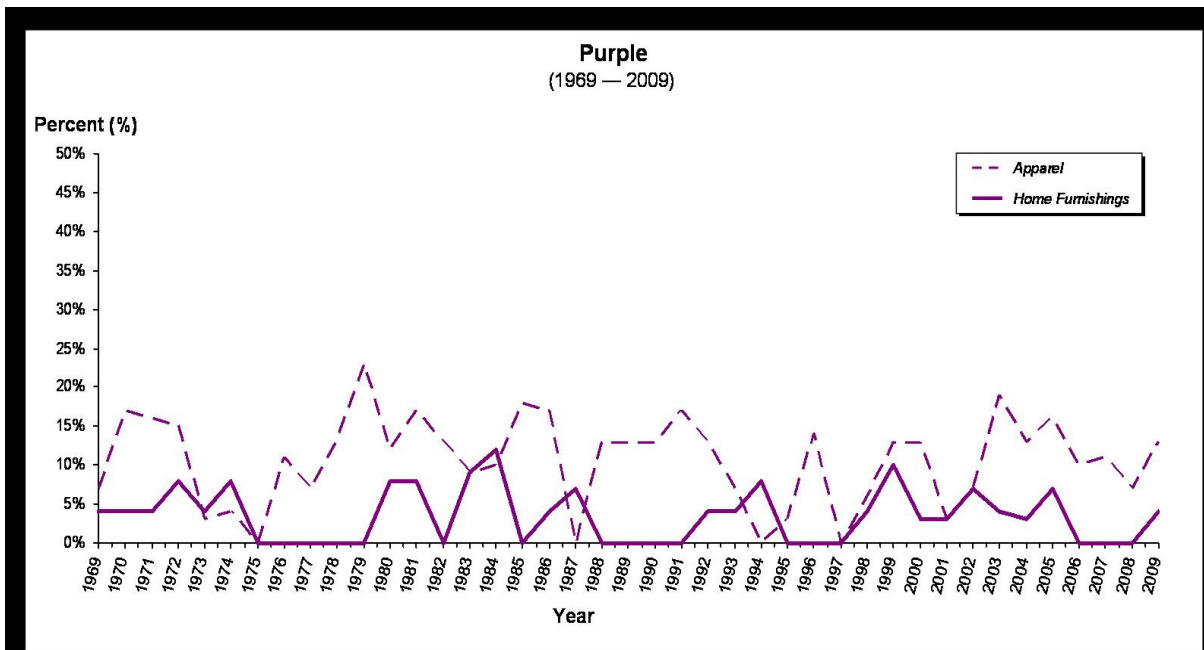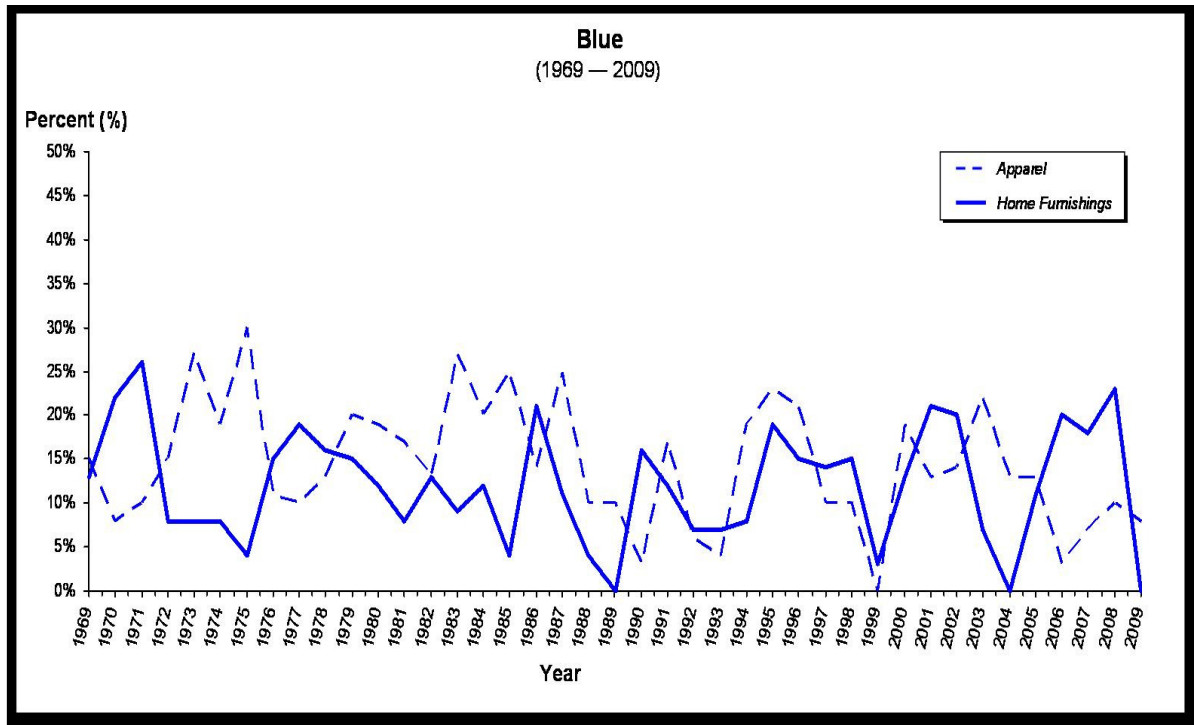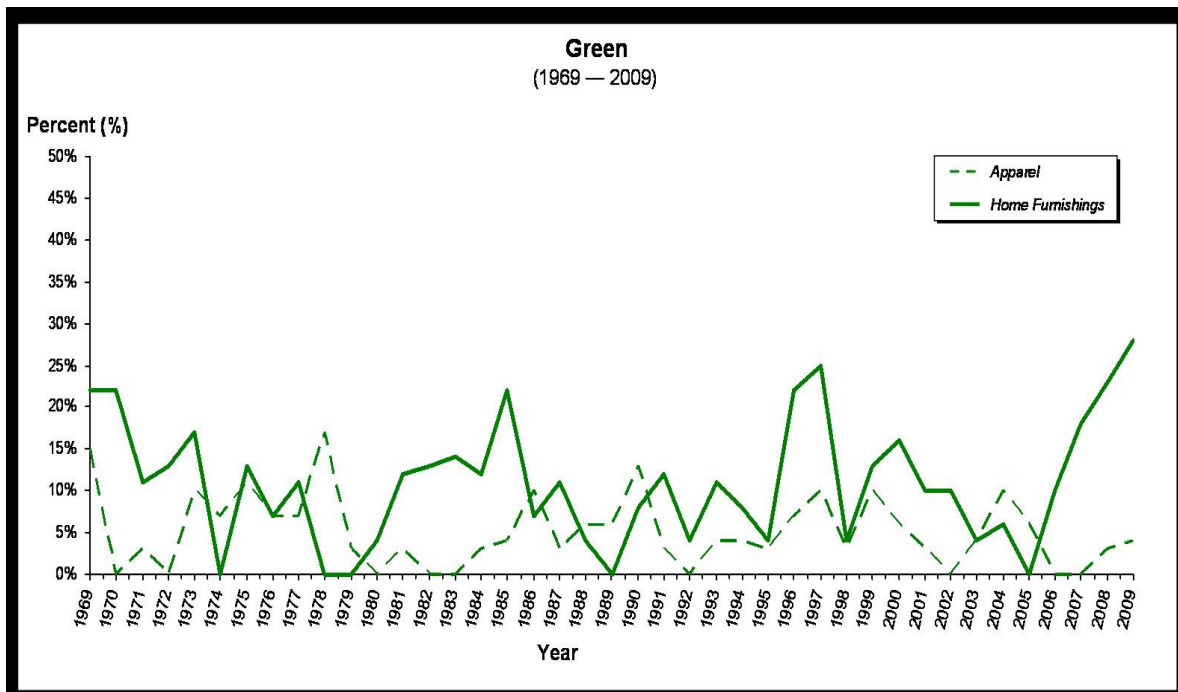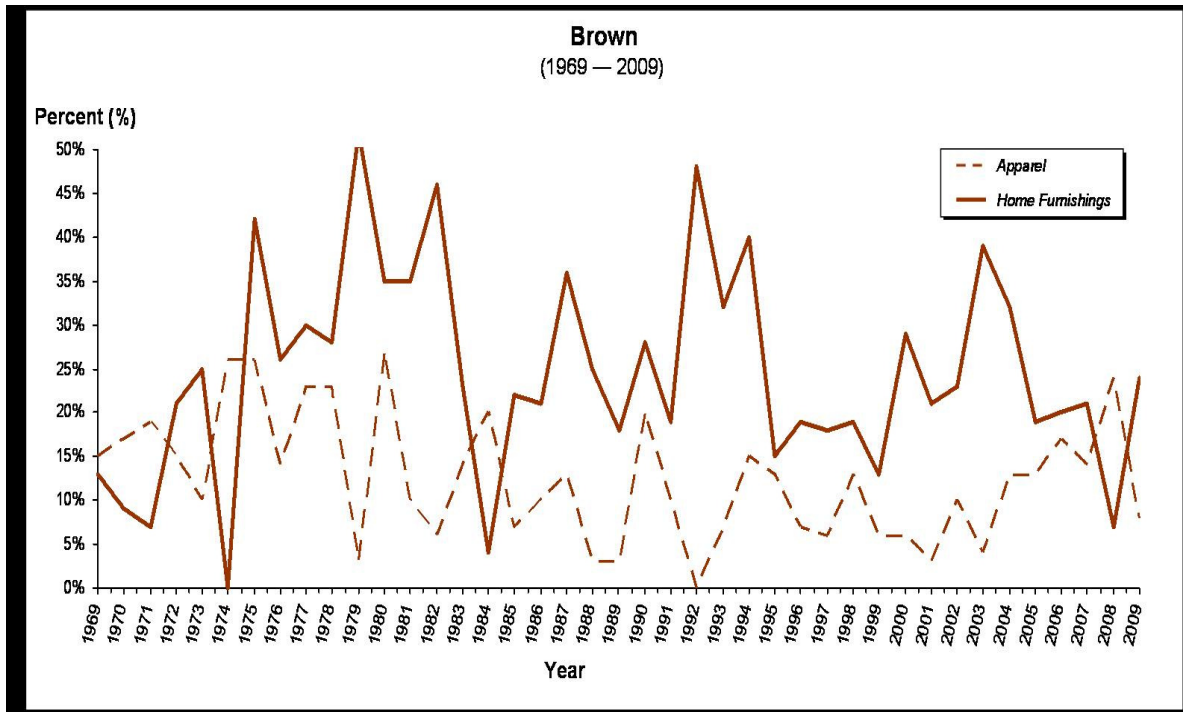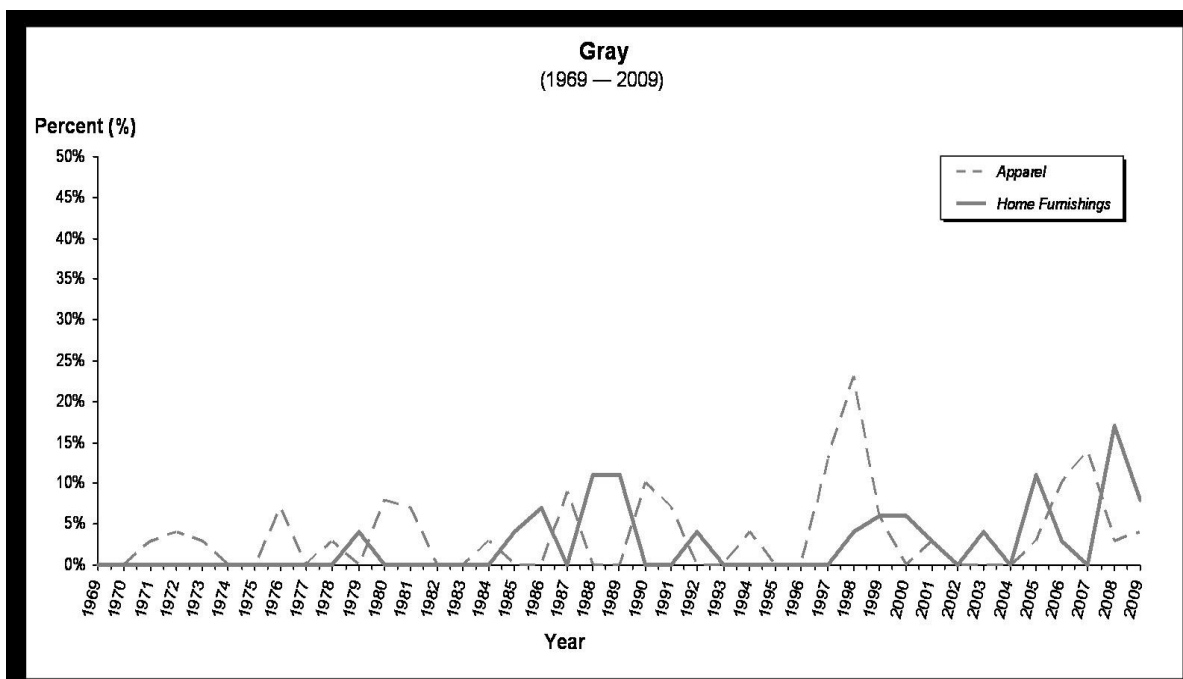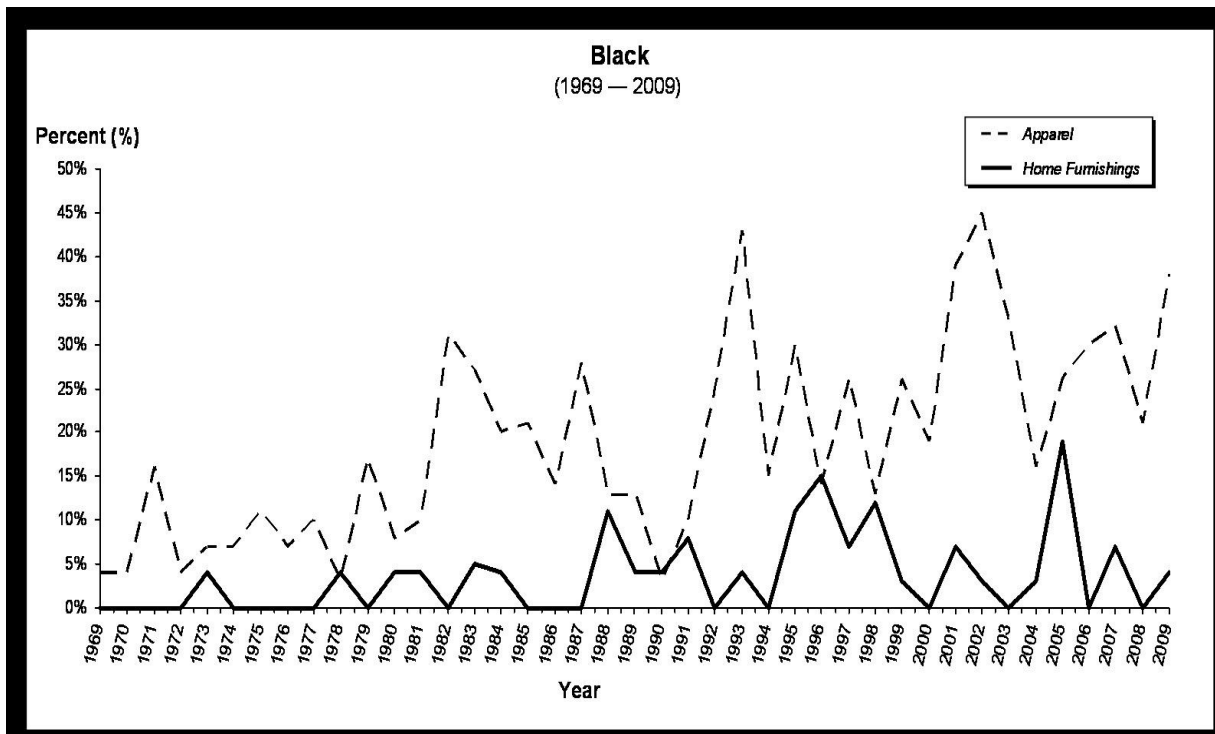*Figure 10.* Grey: Incidences of grey in home furnishings and apparel

Figure 11. Black: Incidences of black in home furnishings and apparel

Figure 12. White: Incidences of white in home furnishings and apparel

Research Question One: Were there parallel color trends in apparel and home

furnishings from 1969 to 2009?

      Yellow. Table 2 and Figure 3 show that yellow was generally seen more often in home furnishings than in apparel. Starting in 1969, yellow rose in home furnishings and reached its highest overall peak in 1972 at nearly 30% of the observations. Then yellow declined sharply from 1972-1974 before rising again to 1979, forming the first visible, complete cycle of yellow in home interiors; its peak was at 20% of the images. There was a brief spike in the use of yellow from 1979-1981. Yellow was not observed again until 1983; its incidence grew and fluctuated at 5% to above 10% of the images over the next nine years. Although it was not seen in 1992, yellow again fluctuated over the next 10 years, reaching peaks of between 20% and 30% of the images in 1999 and 2004. Beginning in 2008, yellow was no longer seen in home furnishings.

      Instances of yellow in apparel were consistently at low levels until a slight peak in 1972, followed by a decline to 1975. From 1975-1978 and 1978-1982, there were two short cycles with peaks in 1977 and 1980. From 1982 to 1986, yellow had two peaks before declining completely. The overall highest peak occurred in 1985 with 15% of the pictures. After 1986, yellow had four full cycles to 1999 (1986-1991, 1991-1993, 1993-1995, and 1995-1999). Following 1999, yellow was less than 5% of the observations through the rest of the period, fluctuating up and down from nothing in 2003, 2005, and 2007.

      Overall cycles of yellow in apparel and home furnishing were not parallel over the 40 years studied. There were instances when displayed patterns were opposite of each other. In 1974, 1979, 1992 and 2008, yellow was not seen in home furnishings but was in apparel. In 1975, 1978, 1983, 1986, 1991, 1995 and 2007, yellow was not observed in apparel and but was in home furnishings. There were brief periods that displayed similar trends. Yellow peaked at a low level in apparel in 1972 when it was at its highest peak in

home furnishings. In the mid- to late 1970s and early 1980s, both had complete cycles. From 2003 to 2005 a parallel cycle occurred at very different levels.

Orange. Table 2 shows that the incidences of orange were the same in home furnishings and in apparel. As shown in Figure 4, the comparative difference in levels of orange seen was not as great as for yellow. There were complete cycles in home furnishings from 1969-1973 and 1973-1976. From 1976-1982, the incidence of orange peaked twice without disappearing; then it fluctuated from nothing to approximately 5% of images from 1982-1984 and 1984-1986 before disappearing until 1990. A low level cycle occurred from 1990-1992, and then images were not observed again until 1996. This absence was followed by three short cycles of acceptance in 1995-1997, 1997-1999, and 1999-2001. After 2001, observations of orange increased overall to 2005 before dropping to none in 2006, followed by a final cycle ending in 2009. The four highest orange peaks (1971, 1977, 1998, and 2007) hovered around 10% of images.

In apparel, the two highest peaks in orange observations were also at approximately 10% but were in 1973 and 1988-1989. From 1969-1974, there was a double cycle; it was followed by cycles from 1974-1979 and 1979-1981. Orange was not seen in apparel again until 1987. Complete cycles occurred from 1986-1990, 1990-1992, 1992-1994, and 1995-1997. Orange was not seen for two years before cycling again from 1999-2002 and at a lower level from 2003-2005. Once this cycle ended, there were no instances of orange in apparel for two years, but after 2007, instances of orange in apparel began to rise and seemed to exhibit the behavior of a new, low level cycle.

There were not many instances of parallel patterns in orange in home furnishings and apparel. From 1990-1992, the cycles were nearly identical, and from 1995-1997, the cycles were parallel, as well. There was also a somewhat similar pattern from 1979-1982. However, there were several years or periods of years when the instances in orange in apparel and home furnishings were very different. In 1971, 1973, 1974, 1976,

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1983, 1985, 1993, 1998, 2001, 2005, 2007, and 2009 the two graphs showed either no images in home furnishings but observations in apparel, or vice versa. No orange images were recorded in apparel from 1981-1986, but in home furnishings there were two small cycles. The apparel cycle from 1986-1990 was contrasted by no observations in home furnishings; a similar pattern was evidenced from 1992-1994. When orange cycled to one of its high peaks between 1997 and 1999, there were no orange apparel images. Thus the incidences of orange in home furnishings and apparel appeared not to be regularly parallel.

Red. Table 2 shows that pictures with red as the dominant color were seen about twice as often in apparel as in home furnishings. Figure 5 shows that unlike the case for yellow and orange, red never disappeared in apparel images: it disappeared infrequently in home furnishings images. The highest peak for apparel was between 35% and 40%; it was approximately 25% for home furnishings. What could be termed cycles in both graphs showed cyclical patterns mostly without the complete disappearance of red from images.

Red was seen in home furnishings constantly from 1969-1980; it peaked four times (1971, 1973, 1976, and 1979), with low points at about 5% of images, and the highest levels between 20% and 25% of images. Beginning in 1980, there was a fluctuating cycle that lasted until 1985. Red was not seen again in home furnishings until after 1986, when it began cycling up to its highest peak, before dropping to no images in 1992. Following 1992, red fluctuated but did not disappear from home furnishings images until 2009. It peaked three times at above 10% of images in 1993, 1995, and 1998, and then at nearly 20% in 2006.

Like home furnishings, there were multiple peaks and valleys in instances of red in apparel. It did not drop to approximately 10% of images except in 1975, 1980, and 1987. It had highs at or above 30% in the early 1970s, and around 25% in the late

1970s to early 1980s. Beginning in 1987, red in apparel rose to its highest peak in 1992. From 1994-2003, it rose and fell three times, ranging from about 5% to about 25%. From 2003-2007, the graph exhibited cyclical behavior showing gradual acceptance, a peak and then decline to a slightly lower level, before another rise to and leveling off in 2008-2009.

While both graphs displayed rising and falling cyclical patterns in instances of red in apparel and home furnishings, there were very few truly parallel cycles between the two. From 1978-1981 and 1994-1996, there were similar, although not perfectly parallel patterns. There were distinct instances where the graphs exhibited opposite patterns. In 1972, 1974, 1982, 1985-1986, 1992, 2000-2001, and 2008-2009, the graphs for home furnishings and apparel were opposite or nearly opposite. There were very few periods when trends were similar; red images rose in both areas from 1975-1976, 1987-1988 and 1996-1997, and fell from both in 2006-2007. The incidence of red in home furnishings and apparel was a combination of some parallel, some similar, and some opposite patterns.

Purple. Instances of dominant purple images were seen much more in apparel than in home furnishings (see Table 2). Figure 6 shows that the latter's highest incidence was between 10% and 15% of images, whereas the highest peak for apparel was between 20% and 25%. No dominant purple home furnishings images were seen from 1975-1979; in 1982 and 1985; and from 1988-1991, 1995-1997 and 2006-2008. From 1969-1971, observations of purple were consistently lower than 5% in home furnishings. They rose to less than 10% in 1972 and 1974, before disappearing in 1975. Three cycles could be observed from 1979-1982, 1982-1985 (with purple's highest incidence in 1984), and 1985-1988. The next cycle was from 1991-1995. The longest purple cycle in home furnishings fluctuated within the nine years between 1997 and 2006. Purple images rose again from 2008-2009.

Observations of purple in apparel images were not found only four times (1975, 1987, 1994 and 1997). The graph of purple in apparel indicated fluctuating cycles of different lengths from 1969 (beginning between 5% and 10% of images) to 1975, 1975-1987 (one of the two longest cycles, marked by the overall highest peak in 1979), 1987-1994, 1994-1997, and 1997-2009. In the last, long period, the years 1997-2001 nearly formed a cycle, but purple did not disappear completely; it rose again, fluctuated downwards, and then ended the period seemingly on the rise with nearly 15% of images.

Although purple in home furnishings and apparel showed few parallel patterns, there were not many instances of exact opposites, either. From 2004-2006, the graphs appear to mimic each other; from 1973-1975, 1997-1999, 2001-2002 and 2008-2009, there were similar patterns. There were also instances where the two graphs were in opposition to each other. When there was no purple found in home furnishings from 1975-1979, 1988-1991,1995-1997 and 2006-2008, in apparel purple was fluctuating upwards or at the heights of cycles. There were also two years (1987 and 1994) when purple was not found in apparel but was peaking in home furnishings.

Blue. The incidences of blue in home furnishings and apparel (see Table 2) were more balanced than for yellow, red and purple. Figure 7 shows that blue disappeared for apparel only once (1999) and only three times (1989, 2004 and 2009) for home furnishings. Peak percentages (around 25-30%) were similar. Blue images in home furnishings rose from approximately 15% in 1969 to a peak of about 25% in 1971 before declining (but not disappearing) in 1975. Blue images in home furnishings peaked again in 1977 before declining to another low in 1985. A shorter cycle could be observed from 1985-1989. After 1989, occurrences rose and leveled off from 1992-1994; rose again and leveled off from 1995-1998; then dropped to a low level in 1999. Two nearly complete cycles could be observed from 1999-2004 and 2004-2009.

In contrast to home furnishings, instances of blue in apparel started off the period in a decline to approximately 10% from a start at 15%. Then a double peak cycle occurred from 1970-1977. At the 1977 low, blue images were still about 10% of the total, and they fluctuated above that level to as much as about 25% until falling to a 5% low in 1990. A 1990-1993 cycle was based at the 5% level; the next cycle ended in blue's only year of absence (1999) from the images. The subsequent, fluctuating cycle rose again to nearly 25% and dropped to about 5% in 2006, whereupon another rise began to 2008.

Although blue rarely disappeared from home furnishings and apparel images, there were few parallel cycles seen in the data; however, there were some periods where the graphs seemed to have similar patterns. A pattern close to a parallel partial cycle could be observed only once, from 1994-1996. From 1998 to 2000 both graphs cycled downwards to disappearance or near disappearance in 1999 before rising again. Other periods on the graph were complete opposites, with a trending up pattern in one product contrasting a trending down path in the other. Examples of these contrasts could be seen from 1969-1971, 1976-1978, 1982-1987, and 2005-2006.

Green. Table 2 shows that green was observed about twice as many times in home furnishings as in apparel. Figure 8 shows that in home furnishings green began and ended the 40-year period, as well as showed its two highest cyclical peaks, between 20% and 25% incidence. It was not seen at four points during the period (1974, 1978-1979, 1989 and 2005). Instances of green held constant from 1969-1970, then declined and partially rebounded to 1973 before disappearing in 1974. It began a new double peak cycle that ended in 1978. A fluctuating cycle beginning in 1979 peaked in 1985 and ended completely in 1989. A more widely fluctuating pattern of shorter cycles that showed high points of 10-25% and low points of approximately 5% was observed from 1989-2005. The 2005-2009 pattern appeared to be the first half of a possible cycle, with green returning to a higher level.

In apparel, green disappeared more often (seven times -- 1970, 1972, 1980, 1982-1983, 1992, 2002 and 2006-2007). Its highest peak (1978) was between 15% and 20%; other peaks had 10-15% incidence. Images of green in apparel fell to 1970 and rose only slightly before falling again in 1972. Then a 1972-1980 fluctuating cycle could be observed before another low level recurrence and fluctuating cycles from 1983-1992. From 1992-2002 green images cycled through two 10% incidence peaks, and from 2002-2006 a single cycle of similar height was evidenced. Green's appearance began to grow moderately at the end of the period.

There were no parallel cycles found between home furnishings and apparel, but there were a few similarities in some patterns. Both rose and fell from 1974-1976, 1992-1995 and 1995-1998. For the most part, however, the patterns shown on the two graphs were dissimilar. In 1971, 1978, 1989 and 2002, the patterns appeared nearly or completely opposite.

Brown. It can be observed in Table 2 that there were approximately double the number of instances of brown as a dominant color in home furnishings images as compared to apparel. In either case, frequency of brown occurrences may have been affected by the definition of white, which was a true or nearly true stark white; cream or slightly tan tints that some would consider "white" were categorized in this study as being in the brown family (see Appendix A). In each product category, there was only one year when brown was not seen.

The peaks in brown observations (see Figure 9) in home furnishings (six points of approximately 40-50% incidence) were higher than the colors represented in Figures 1-6, and at only three points was brown found at the low incidence level of 5%. There were several instances of sharply rising or falling lines from one year to the next. The incidence in home furnishings fell from a 1969 beginning level of around 12% to 1971; after that it increased to 1973 before disappearing completely in 1974. In 1975, brown

observations rose sharply, beginning a triple peak cycle that appears to have ended in 1984, although brown did not disappear. From 1984, a pattern of either one long and fluctuating cycle to 2008 or two cycles (1984-1995/1999 and 1995/1999-2008) can be observed. There was a last, sharp rise in incidence from 2008-2009.

Similar to home furnishings, apparel images with brown as the dominant color composed about 15% of total images at the beginning of the period. They fluctuated, with two peaks at the 20-25% level, until dropping to a low level in 1979, and showed a similar jagged pattern, although with declining peak levels, until reaching another low in 1988. Following a 1989-1990 rise to the 20% level, brown apparel images disappeared in 1992. Thus, from 1969-1992, brown was never completely gone from apparel images. There were years (1979, 1981 and 1992) when brown declined drastically from the previous year, and there were instances when the level was constant for two years (1974-1975, 1977-1978, and 1988-1989). After 1992, the incidence of brown fluctuated over the next 17 years at overall lower levels than previously observed, although brown peaked again at 20-25% incidence in 2008 before declining in 2009.

One nearly parallel cycle and two similar patterns were seen in the graphs from 1989-1991/92 and 1997-1999,;brown images in home furnishings and apparel rose and fell. There were two periods (1975-1976 and 1987-1988) when the two categories declined in a similar way. There also years or periods with contrasting characteristics. From 1969-1974, 1978-1980, 1982-1985 and 2007-2009, the incidences in the two categories were in opposition to each other.

Grey. The incidence of grey images was low, particularly in the first half of the 40-year period in apparel and home furnishings (see Table 2). Both graphs in Figure 10 had multiple periods of no incidence and very short periods of relatively low incidence. In home furnishings, the most regular evidence of grey did not begin until after 1997. Grey was not seen in home furnishings images for the first ten years and then not again

from 1980-1984, in 1987, from 1990-1991 and 1993-1997, and in 2002, 2004 and 2007. The highest incidence (10-15%) of grey images in home furnishings occurred during two complete cycles (1987-1990 and 2004-2007), and the highest peak (20-25% level) was found in 2008. Five lower level (5-10% incidence) complete cycles were observed in 1978-1980, 1984-1987, 1991-1993, 1997-2002 and 2002-2004.

Grey images in apparel did not disappear as frequently or for as long as in home furnishings. Grey images were observed in complete cycles with breaks of one year, two years, or three years. The highest peaks in the incidence of grey before 1998 were at the 5- 10% level (cycles in 1975-1977, 1979-1982, 1986-1988 and 1989-1992). Grey apparel images were most apparent in the 1996-2000 cycle with a peak near the 25% level. The second highest peak was found in 2007, following a rise from 2004. Although images declined to 2008, they showed a slight increase in 2009.

There were no parallel cycles found in the data, and there was little evidence of similar trends between years. However, there were periods when grey images in both apparel and home furnishings were not observed (1969-1970, 1974-1975, 1982-1983 and 1995-1996). There were multiple periods when the graphs exhibited opposite characteristics; either grey was seen in apparel but not in home furnishings, or vice versa.

Black. Table 2 shows that black was the most frequently seen color in apparel; it was seventh in incidence in home furnishings. The graphs seen in Figure 11 represent the occurrences of black dominant images in apparel and home furnishings. Black never completely declined to nothing in apparel, but it did in home furnishings for as long as four years. Black was observed more in home furnishings after 1987. Until the cycle that began in 1987, black was seen in four low level cycles; peak observations in 1973, 1978, 1980-81 and 1983-1984 did not exceed the approximately 5% level. After 1987, black did not disappear from home furnishings images for more than a year at a time.

Subsequent double peak cycles of 1987-1992 and 1994-2000 reached (respectively) the 10% and 15% levels. Black's highest level of representation in home furnishings (about 20%) images occurred in 2005 during a 2003-2006 cycle. From 2006, its incidence lowered.

Although black images were found more in apparel than home furnishings, they both were seen more in the second half of the 40-year period. The incidence of black apparel images oscillated more sharply than that in home furnishings. Black cycles in apparel were not grounded at the zero level since black never disappeared. Between two brief cycles (1970-1972 and 1978-1980) which hit the 15% level, black fluctuated around 5-10% incidence. A cycle from 1980-1990 had two peaks of 25-30%. Following 1990, peaks of 40-45% were observed in 1993 and 2002, and the lowest incidence found was 15%.

The black graphs did not exhibit any parallel characteristics and tended to trend differently across the period. Exceptions were when both categories trended upward from 1972-1973, 1990-1991, 1994-1995, 2000-2001, 2004-2005 and 2008-2009. During the longer periods when black was not observed in home furnishings (1969-1972, 1974-1977 and 1985-1987), black was seen in apparel. There were also periods (1981-1983 and 1996-1998) when the two graphs' patterns contrasted each other.

White. Although white was narrowly defined, it was second in incidence in home furnishings. Fewer white dominant images were seen in apparel (see Table 2). Figure 12 shows that white rarely disappeared as a dominant color in home furnishings and apparel images. Only twice in each category, 1971 and 1998 for home furnishings and 1974 and 1985 for apparel, were no white images found. Other than disappearing twice, the lowest levels of observations in home furnishings were at the 5-10% level. Although there was regular fluctuation with peaks of up to 40% of images, it could be observed that there was a long cycle from 1971-1998 of white in home furnishings. Following

1998, white rose again to 20% of images in 1999, and finished the period at about that level, fluctuating up and down (between the approximate 10% and 25% levels) until 2009.

In apparel, white images declined overall to 1974. A fluctuating, complete cycle can be observed from 1974-1985, with a low point in 1977-1978 and a peak at more than 15% in 1981. Following 1985, white showed low incidence (less than 10%) in 1990, 1992, 1995, 2000 and 2009 and peaks (approximately 25% incidence) in 1994 and 1999.

There was one instance (1974-1977) when a small cyclical pattern was nearly parallel between home furnishings and apparel. There were periods when graphs exhibited similar behavior exhibit trending up (1983-1984 and 2005-2006) or down (1969-1971, 1984-1985 and 2004-2005). There were a few points when the graphs depicted opposite incidence; these were 1985 and 1991-1993.

Summary Answer to Research Question One. There were very few parallel patterns exhibited in the data for any of the colors, and none were for a lengthy period of time. While the cycles were not parallel, there were colors, such as red and blue, with home furnishings and apparel data that appeared to mimic each other. The data exhibited instances when there were short lived trends that were similar and instances where a color was observed in home furnishings or apparel but not seen in the other. There were periods when the home furnishings and apparel graphs were not opposite or parallel, but appeared independent of each other in behavior. Grey and black in home furnishings had higher occurrences in the second half of the period, but in apparel exhibited more consistent levels overall. In comparison, blue, orange and brown exhibited consistent levels throughout the 40 years in apparel and home furnishings. Colors with lower incidences, such as orange and grey, had more frequent periods of disappearance than colors with higher incidences, such as brown and white. Colors with

incidences more in the middle, such as red, blue and green, exhibited behavior that was similar to colors with higher incidences.

Research Question Two: Were the lengths of color cycles in apparel and home furnishings similar between 1969 and 2009?

Cycle lengths were measured for each color relative to overall incidence. A period was generally considered to be a cycle if there was a visible rise and fall beginning and/or ending at the 0 – 5% level, including fluctuations and multiple peaks. Five percent was chosen as the minimum because this represented at least a count of one, and in the theoretical depiction (see Figure 1 in Chapter 2) of a fashion cycle, the beginning and ending of the cycle is slightly above zero. For some colors, such as orange, which never exceeded 13% incidence, any appearance was deemed significant.

Yellow. Cycle years and cycle lengths in yellow were as follows (see Figure 1):

- Home furnishings: pre-1969-1974 (5+), 1974-1979 (5), 1979-1981 (2), 1983-1992 (9), 1993-2008 (15)

- Apparel: pre-1969-1975 (6+), 1975-1978 (3), 1978-1982 (4), 1982-1986 (4), 1986-1991 (5), 1991-1993 (2), 1993-1995 (2), 1995-1999 (4), 1999–2003 (4), 2003-2005 (2), 2005-2007 (2), 2007-post-2009 (2+)

There were generally shorter cycles in apparel; many were just 2 to 4 years, and only two cycles were 5 to at least 6 years. In home furnishings there was only one 2 year cycle, and there were cycles of 9 and 15 years.

Orange. Cycle years and cycle lengths in orange were as follows (see Figure 2):

- Home furnishings: 1969-1973 (4), 1973-1976 (3), 1976-1982 (6), 1982-1984 (2), 1984-1986 (2), 1990-1992 (2), 1997-1999 (2), 1999-2001 (2) 2001-2006 (5), 2006-2009 (3)

- Apparel: 1969-1974 (5), 1974-1979 (5), 1979-1981 (2), 1986-1990 (4), 1990-1992 (2), 1992-1994 (2), 1995-1997 (2), 1999-2002 (3), 2003-2005 (2), 2007-post-2009 (2+)

Cycles were approximately the same in apparel and home furnishings. In apparel cycles were between 2 and 5 years, with the majority of the cycles lasting two years. In home furnishings, cycles were between 2 and 6 years, with the majority of the cycles lasting two years, as in apparel.

Re.: Cycle years and cycle lengths in red were as follows (see Figure 3):

- Home furnishings: pre-1969-1972 (3+), 1972-1974 (2), 1974-1978 (4), 1978-1980 (2), 1980-1985 (5), 1985-1992 (7), 1992-1994 (2), 1994-1996 (2), 1996-2001 (5), 2001-2009 (8)

- Apparel: only went to or below 5% in 2007; longest period with no decline and highest peak was 1987-1994 (7), 2007-post-2009 (2+)

Apparel declined below 5% only once during the 40 year time period. In home furnishings, cycles lasted from 2 to 8 years, with the majority of the cycle lengths lasting 2 years. There were two cycles which lasted 5 years.

Purple. Cycle years and cycle lengths in purple were as follows (see Figure 3):

- Home Furnishings: pre-1969-1975 (6+), 1979-1982 (3), 1982-1985 (3), 1985-1988 (3), 1991-1995 (4), 1997-2006 (9), 2008-post-2009 (1+)

- Apparel: pre-1969-1975 (6+), 1975-1987 (12), 1987-1994 (7), 1994-1997 (3), 1997-2001 (4), 2001-post-2009 (8+)

Cycles were generally longer in apparel than in home furnishings. Apparel cycles were between 3 and 12 years, with the longest cycles lasting 4, 6+, 7, 8+ and 12 years. In home furnishings, there was one 6+ and one 9 year cycle, with more shorter cycles.

Blue. Cycle years and cycle lengths in blue were as follows (see Figure 4):

- Home Furnishings: pre-1969-1975 (6+), 1975-1985 (10), 1985-1989 (4), 1989-1999 (10), 1999-2004 (5), 2004-2009 (5)
- Apparel: pre-1969-1990 (21+), 1990-1993 (3), 1993-1999 (6), 1999-2006 (7), 2006-post-2009 (3+)

In home furnishings, cycles were between 4 and 10 years, with two at the longest length. In apparel there was one long 21+ years cycle and then cycles of at least 3 to 6 or 7 years beginning in 1990. Although apparel seems to have tended towards longer cycles, the evidence was not conclusive.

Green. Cycle years and cycle lengths in green were as follows (see Figure 5):

- Home Furnishings: pre-1969-1974 (5+), 1974-1978 (4), 1979-1989 (10), 1989-1995 (6), 1995-1998 (3), 1998-2003 (5), 2003-2005 (2), 2005-post-2009 (4+)
- Apparel: pre-1969-1970 (1+), 1970-1972 (2),1972-1980 (8), 1980-1982(2), 1983-1992 (9), 1992-2002 (10), 2002-2006 (4), 2007-post-2009 (2+)

Home furnishings cycle lengths range from 2–10 years and apparel from 1+ -10 years. Overall, they were relatively similar, although apparel had a few more longer cycles and home furnishings a few more shorter ones.

Brown. Cycle years and cycle lengths in brown were as follows (see Figure 6):

- Home furnishings: pre-1969-1974 (5+), 1974-1984 (10), 1984-post-2009 (25+)
- Apparel: pre-1969-1979 (10+), 1979-1988 (9), 1989-1992 (3), 1992-2001 (9), 2001-2003 (2), 2003-post-2009 (6+)

There were more cycles in apparel than in home furnishings. Apparel cycles were between 2 and at least 10 years. Two cycles lasted 9 years, and there were cycles

lasting 2, 3, 6+ and 10+ years each. In home furnishings, there were three cycles lasting

5+, 10 and 25+ years, each cycle length increasing over time. Thurs, the cycles in home

furnishings could be considered generally longer.

Grey: Cycle years and cycle lengths in grey were as follows (see Figure 7):

- Home furnishings: 1978-1980 (2), 1984-1987 (3), 1987-1990 (3), 1991-

    1993 (2), 1997-2002 (5), 2002-2004 (2), 2004-2007 (3), 2008-post-2009

    (1+)

- Apparel: 1970-1974 (4), 1975-1977 (2), 1977-1979 (2), 1979-1982 (3),

    1983-1985 (2), 1986-1988 (2), 1989-1992 (3), 1993-1995 (2), 1996-2000

    (4), 2000-2002 (2), 2004-2008 (4)

Cycles were approximately the same in apparel and home furnishings. In apparel cycles

were between 2 and 4 years, with the majority of the cycles lasting 2 years, three cycles

lasting 4 years and two cycles lasting 3 years. In home furnishings, cycles were between

1+ and 5 years, with the majority of the cycles lasting 2 and 3 years.

Black. Cycle years and cycle lengths in black were as follows (see Figure 8):

- Home furnishings: 1972-1974 (2), 1977-1979 (2), 1979-1982 (3), 1982-

    1985 (3), 1987-1992 (5), 1992-1994 (2), 1994-2000 (6), 2000-2003 (3),

    2003-2006 (3), 2006-2008 (2), 2008-post-2009 (1+)

- Apparel: pre-1969-1972 (3+), 1972-1978 (6), 1978-1990 (12), 1990-post-

    2009 (19+)

There were more cycles in home furnishings than in apparel. Apparel cycles ranged

from 3+ to at least 19 years. There were generally longer cycles in apparel than in home

furnishings. In home furnishings, cycles were between 1+ and 6 years, with the majority

of the cycles lasting 2 and 3 years.

White. Cycle years and cycle lengths in white were as follows (see Figure 9):

- Home furnishings: pre-1969-1971 (2+), 1971-1998 (27), 1998-post-2009 (11+)

- Apparel: pre-1969-1974 (5+), 1974-1985 (11), 1985-post-2009 (24+)

There were only two complete cycles in home furnishings and three in apparel. Since each had 11 or 11+ year cycles and 24+ or 27 year cycles, lengths were similar.

Summary Answer to Research Question Two. Cycles ranged from 2 to 27 years. Colors that had clearly higher occurrences in one category or the other exhibited longer cycles. Thus, there were longer cycles in yellow and brown in home furnishings, and longer ones in red, purple, and black in apparel. In contrast, the colors with the lowest occurrences had the shortest cycle lengths. Cycle lengths in grey and orange in home furnishings and apparel did not exceed 5 years, and many of the cycles lasted for 2 years. White had the longest cycles in both home furnishings (27) and apparel (at least 24), making these similar. Cycles in green in home furnishings and apparel were relatively similar, but there was not as clear an answer to whether or not blue cycles were similar or dissimilar.

Research Question Three: Was there a time lag in the patterns of color change in apparel and home furnishings from 1969 to 2009?

Yellow. The cycles in apparel both followed and preceded cycles in home furnishings (see Figure 3). In home furnishings, cycles that demonstrated a time lag began in 1974, 1979, 1983, and 1993; the corresponding cycles in apparel began respectfully in 1975, 1978, 1982, 1991 and 1995. There appeared to be a lag time in the cycles between apparel and home furnishings. However, there was not a consistent pattern as to whether home furnishings or apparel cycles were first.

Orange. Home furnishing cycles that exhibited a time lag began in 1973, 1976, 1990, and 1994, and the corresponding cycles in apparel began in 1974, 1979 and 1992. However, there also were several cycles which were parallel and did not present

any lag in time. Thus, there were some time lags between home furnishings and apparel, and based on the data displayed in Figure 4, home furnishing cycles were the predecessors.

Red. Red had no periods of disappearance in apparel; there were two long fluctuating cycles between its two lowest points (see Figure 5). Home furnishings data produced multiple cycles with varied lengths. The data suggest that the ongoing cycles in apparel were predecessors to cycles in home furnishings.

Purple. There were multiple periods in the data which exhibited a time lag between apparel and home furnishing cycles (see Figure 6). The time lag can be seen in apparel in 1975, 1987 and 2001. The corresponding years in home furnishings were 1979, 1982 and 2008. During these periods, a purple cycle initially began in apparel, and then began later in home furnishings. Time periods that followed that pattern can be found throughout the data. Therefore it can be observed that there were time lags in the patterns of change in purple in apparel and home furnishings.

Blue. Similar to red, blue rarely saw periods of disappearance, and cycle lengths were long (see Figure 7). The initial cycle in blue in apparel lasted more than 21 years. During that time, several cycles began in home furnishings (in 1975, 1986 and 1989). In 1999, a cycle began in both apparel and home furnishings. However, that home furnishings cycle ended in 2004, whereas the apparel one ended in 2006. Thus, it appeared that there was a time lag in the patterns of change in blue in apparel and home furnishings, but it is not entirely clear as to which category if either, more commonly led.

Green. Cycles in apparel and home furnishings both began prior to 1969; the one in apparel ended in 1970, whereas the cycle in home furnishings ended in 1974. Figure 8 indicates that cycles in home furnishings were precursors for cycles in apparel. Cycles in apparel were shorter and often fell within the longer cycles in home

furnishings. Home furnishings cycles began in 1979, 1989 and 1998, with

corresponding cycles in apparel in 1980, 1992, and 2002. There appeared to be a time

lag in the patterns of change in green in apparel and home furnishings.

Brown. Brown had few periods of disappearance in home furnishings, producing

only three cycles that were 5, 10 and 25 years in length (see Figure 9). All of the cycles

in apparel, except for the first two, fell under the last cycle in home furnishings that

began in 1984. The cycles in home furnishings appear to have been precursors to cycles

in apparel.

Grey. Patterns of time lag were easily identifiable in the data for grey in home

furnishings and apparel. The cycles in apparel in grey looked like precursors to cycles in

home furnishings. Cycles that exhibited a time lag began in apparel in 1977, 1983,

1986, 1989, and 1996. Corresponding cycles in home furnishings began in 1978, 1984,

1987, 1991, and 1997. At these times, a grey cycle initially began in apparel, and then

began later in home furnishings. Time periods that followed that pattern can be found

throughout the 40 year period. Time lags in the patterns of change in grey in apparel and

home furnishings are apparent from the data in Figure 10.

Black. The black data in apparel were similar to the brown data in home

furnishings. There were only four cycles which lasted 3, 6, 12 and 19 years. The cycles

in home furnishings each fell under one of the cycles in apparel. From the data in Figure

11, it is apparent that cycles in apparel were precursors to cycles in home furnishings.

Thus it can be observed that there was a time lag in the patterns of change in black in

apparel and home furnishings.

White. The white cycles in home furnishings and apparel sometimes mimicked

each other in rise or decline. There were few periods in which either home furnishings

or apparel cycles clearly began before the other. A cycle in home furnishings which

began in 1971 lasted 27 years; it appeared to be the precursor for two cycles in apparel,

one beginning in 1974 and the other in 1985. Based on the data shown in Figure 12, it can be said that ongoing cycles in home furnishings appeared to be predecessors to the cycles in apparel.

Summary Answer to Research Question Three. Generally, the data exhibited time lags for the majority of the colors.   Apparel cycles appeared to be the precursors to home furnishings cycles for the following colors: red, purple, blue, grey, and black. Home furnishing cycles appeared to be the precursors to apparel cycles for the following colors: orange, green, brown and white. There was not a clear pattern in either direction for yellow. Thus, for most colors, time lags did appear to exist between 1969 and 2009, but for five colors, apparel led, and for four colors, home furnishings led.

Research Question Four: Did the lengths of color cycles in apparel and home interiors change between 1969 and 2009?

Yellow. Between 1969 and 2009, yellow cycles in home furnishings were 5+, 5, 2, 9 and 15 years in length. In apparel they were 6+, 3, 4, 4, 5, 2, 2, 4, 4, 2, 2, and 2+ years in length. Based on these data, cycle lengths appeared to lengthen in home furnishings towards the end of the period, whereas in apparel they did not; there actually were a few somewhat longer yellow apparel cycles in the first part of the period.

Orange. Between 1969 and 2009, orange cycles in home furnishings were 4, 3, 6, 2, 2, 2, 2, 2, 5 and 3. In apparel they were 5, 3, 4, 4, 5, 2, 2, 4, 4, 2, 2 and 2+ years in length. In the beginning of the period, cycle lengths were varied, both decreasing and increasing. Towards the middle of the period, cycles were constant and experienced very little change, but toward the end of the period, cycles in home furnishings again varied. Overall, cycle lengths in home furnishings exhibited more consistency than increases or decreases. However, in apparel cycle lengths shortened, changing from more 4-5 year cycles to more 2 year cycles.

Red. From 1969 to 2009, cycle lengths in home furnishings were 3+, 2, 4, 2, 5, 7, 2, 2, 5 and 8 years. In apparel, there was only one year where red occurrences dropped below 5%, which was in 2007. It can be observed that the ups and downs of red in both categories, including low points above the 5% level, did not visually appear to trend longer or shorter. The lengths in home furnishings and apparel varied for both. It can not be concluded that cycle lengths shortened or lengthened. Based on the data it must be concluded that cycle lengths did not change over the 40 year period.

Purple. From 1969 to 2009, cycle lengths in home furnishings were 6+, 3, 3, 3, 4, 9 and 1+ years. In apparel the cycle lengths were 6+, 12, 7, 3, 4 and 8+ years. Thus, in home furnishings there was a relatively longer cycle, then shorter ones, and then a longer one at the end of the period. In apparel, there also were longer, then shorter, then again longer cycles. Therefore, in both categories there was evidence of change in cycle lengths, but not a clear one way trend.

Blue. Color cycle lengths in home furnishings were 6+, 10, 4, 10, 5 and 5 years. In apparel, the lengths of cycles were 21+, 3, 6, 7 and 3+ years. The lengths in home furnishings vacillated, exhibiting change that ended with two relatively shorter cycles. Compared to the very long cycles in the first half of the period, blue cycles in apparel in the second half were shorter. In home furnishings and apparel, the data suggested relatively shorter cycles towards the end, but there was not a clear trend.

Green. Between 1969 and 2009, green cycles in home furnishings were 5+, 4, 10, 6, 3, 5, 2 and 4 years in length. In apparel the lengths were 1+, 2, 8, 2, 9, 10, 4 and 2+ years in length. Both ended the period with shorter cycles, but because the lengths in home furnishings and apparel were varied between increasing and decreasing over the 40 years, it can not be concluded whether cycle lengths definitely shortened or lengthened in apparel and home furnishings.

Brown. Between 1969 and 2009, there were three brown cycles in home furnishings; they were 5+, 10 and 25 years in length. Cycle lengths in apparel were 10, 9, 3, 9, 2 and 6+ years in length. The cycles in home furnishings lengthened over the 40 year period. The data show that cycle lengths in apparel increased and decreased. Therefore, it can not be concluded whether cycles shortened or lengthened.

Grey. The lengths in home furnishings from 1969 to 2009 were 2, 3, 3, 2, 5, 2, 3 and 1+ years. In apparel the cycle lengths were 4, 2, 2, 3, 2, 2, 3, 2, 4, 2 and 4 years. Cycle lengths in home furnishings and apparel fluctuated slightly between increasing and decreasing during the 40 year data period. With cycles mostly ranging between 2 and 4 years, it cannot be concluded that lengths trended shorter or longer.

Black. Between 1969 and 2009, cycles in home furnishings were 2, 2, 3, 3, 3, 5, 2, 6, 3, 3, 2 and 1+ years in length. Cycle lengths in apparel were 3+, 6, 12 and 19 years respectfully. Home furnishings cycles varied, oscillating between 2 and 6 years; therefore, it cannot be observed that cycle lengths shortened or lengthened. In contrast to home furnishings, apparel produced very few cycles, and from the data it can be said that cycles lengthened over the 40 year period.

White. Between 1969 and 2009, there were two cycles in home furnishings lasting 27 and 11 years. Cycle lengths in apparel were 5+, 11 and 24 years respectfully. Given the consistency of white in home furnishings, it can not be concluded that cycles shortened, lengthened or remained the same. Although apparel produced very few cycles, from the data it can be observed that cycles lengthened over the 40 year period.

Summary Answer to Research Question Four. Color cycle length changes were not consistent between home furnishings and apparel from 1969 to 2009. Cycle lengths in home furnishings lengthened in yellow, purple and brown. The lengths of color cycles in apparel increased in black but cycle lengths in orange and blue became shorter. No colors appear to have trended towards shorter cycle lengths in home furnishings.

Orange cycles in home furnishings and red cycles in apparel stayed relatively the same in length. In all other cases, cycle lengths changed up and down enough that no clear pattern was formed. The results of the data were mixed. Four colors had relatively similar cycle lengths and five did not. Of the five that did not, home furnishings cycles were longer for two colors and apparel longer for three. Overall, there was much change in the lengths of color cycles; however, that change did not support a single decreasing or increasing trend.

CHAPTER V SUMMARY, CONCLUSIONS, IMPLICATIONS, AND
RECOMMENDATIONS

This study was conducted to explore the relationship between cycles in colors in

apparel and home furnishings from 1969-2009. To do so, fashion cycle principles and

established methods for studying them were applied to observations of colors that

dominated pictures in apparel and home furnishings magazines. Four magazines, two

interior and two apparel, were used to gather pictures. For most data collection, monthly

issues of *Architectural Digest, Better Homes and Gardens, Vogue,* and *Cosmopolitan*

from 1969 to 2009 were viewed at the Ralph Brown Draughon Library at Auburn

University. Twenty-five years of *Cosmopolitan* were not available at the Draughon

Library; those issues were reviewed at the Harold Washington Public Library in Chicago,

Illinois. Three hundred fifteen issues were consulted for the study. Eighty issues each

of *Vogue, Better Homes and Gardens*, and *Architectural Digest, and* seventy-five issues

of *Cosmopolitan* were reviewed to gather pictures that demonstrated dominance of a

color in the image on either advertising or editorial pages of the apparel and home

furnishings magazines.

A data collection sheet was used to record observations. A total of 2,260

pictures were sampled for the study. Fifty-two percent (1,158) of the pictures were from

Cosmopolitan and *Vogue.* The remaining pictures were chosen from *Better Homes and*

Gardens and *Architectural Digest*. The pictures were categorized into the following

groups: yellow, orange, red, purple, blue, green, brown, gray, black and white.

Predetermined delineation of color families using Pantone color cards determined color

assignment. Data were recorded in Mircrosoft Excel.

Research questions explored the similarity or dissimilarity of patterns of change,

cycle lengths, and timing of cycles between home furnishings and apparel. Additionally

it was asked whether or not cycles became shorter by the end of the period than at the

beginning. The methodologies of earlier fashion cycle studies steered the qualitative

content analysis. Data analysis was begun in Microsoft Excel for the totaling of

observations and calculating of percentages for each color's incidence relative to other

colors observed in each year in apparel and home furnishings. The charting function in

Microsoft Powerpoint was used to create the graphs that visually displayed the

percentages for each color and for each category and allowed for visual analysis of the

graphs to answer the research questions.

<center>Summary of Findings for Colors</center>

All colors were not observed to the same degree in apparel and home

furnishings. In the latter category, the observations of colors from most to least frequent

were as follows: brown, white, blue, green, yellow, red, black, orange, purple and grey

In apparel, the most to least seen colors were: black, red, blue, brown, purple, white,

green, grey, yellow and orange. Cycle lengths varied from 2 to 27 years. Although

scholars (Brannon, 2005; Sproles, 1979; Sproles & Burns, 1994) have distinguished

short and long term cycles, definitions of relative lengths have not been specified. In this

study, after observing data for all colors, three cycle length categories were identified.

Short cycles were defined as 4 years or less, medium cycles as 5 to 9 years, and long

cycles as greater than or equal to 10 years.

<center>*Yellow*</center>

Observations of yellow were more prevalent in home furnishings than in apparel,

but there were a few years when yellow was not seen in apparel or home furnishings.

Based on the data, yellow was used more consistently in home furnishings; there were

more years when it was not observed at all in apparel. Cycles in home furnishings and

apparel did not exhibit parallel behavior from 1969 to 2009. Apparel cycles were almost

all short. Along with being generally longer than apparel, home furnishings cycles in

yellow were most often medium in length, and at the end of the period, there was a 15

<center>61</center>

year long cycle. Thus, cycles of yellow in home furnishings tended to be longer at the

end than the beginning of the period. In general there was no clear lag time between

apparel and home furnishings in the appearance and disappearance of yellow. The

graphs typically mimicked each other, with no clarity as to whether cycles occurred first

in either category.

<center>*Orange*</center>

The data for orange were similar for apparel and home furnishings in that there

were multiple short and a just few medium length cycles in each, and even when orange

experienced popularity, it never accounted for more than 15% of the observations within

either category in any year. Cycles typically often showed a two year span from

appearance to disappearance in each category, suggesting that orange sometimes

exhibited the attributes of a fad, with small, short peaks of interest (Brannon, 2005).

Overall, the data for orange in apparel and home furnishings exhibited clear cyclical

patterns, including frequent periods of disappearance. Although there were visible

cycles found in both sets of data, those cycles were not parallel in most instances.

Some of the observations occurred simultaneously, but on some occasions the graphs

exhibited opposite behavior. The lengths of cycles in apparel shortened over time, but

cycle lengths in home furnishings remained the same. In apparel, cycle lengths ranged

from 2 to 5 years in the first half of the period, but in the second half declined, ranging

from 2 to 3 years. Home furnishings cycles were short to medium length through the full

time period.

<center>*Red*</center>

Red had the second highest incidence of a color in apparel. In home furnishings

red ranked 6th among all colors. There were just two cycles of red in apparel because its

incidence only dropped below 5% once (in 2007). Based on the definition provided by

Brannon (2005), the data's behavior was consistent with that of a classic, which is a

phenomenon with relatively steady acceptance over an extended period of time. Red

cycles in home furnishings were shorter; ranging from 2 to 8 years; they were both short

and medium in length and more frequent. With dissimilar cycle lengths and counts, the

data did not exhibit parallel patterns and often displayed behavior that was opposite.

This suggests that the ongoing cycles in apparel could have been a predecessor to

cycles in home furnishings. Cycle lengths in home furnishings changed; however, it

could not be concluded that there was a pattern of increased or decreased lengths.

Since red showed the behavior of a classic in apparel, there was no pattern of change in

cycle lengths.

Purple

There were limited occurrences of purple in home furnishings and a moderate

level in apparel, ranking 9th and 5th respectfully. The highest peak in apparel in purple

reached 25% of all colors seen in 1998. In home furnishings, instances of purple did not

meet or exceed 15% during the entire time period. The data for purple in apparel and

home furnishings exhibited cyclical behavior; there were more frequent periods of

disappearance in the latter. There were recognizable cycles found in both sets of data,

but those cycles were not parallel in most instances. Ranging from 3 to 12 years, cycle

lengths were generally longer in apparel than in home furnishings, which had cycle

lengths of 1+ to 9 years. Purple could be characterized as more often having short

cycles in home furnishings and medium cycles in apparel. Overall, short cycle lengths

were not short enough to be considered fads, and long cycles were not long enough to

be a classic. In both categories cycle lengths exhibited change but in opposite ways;

lengths in home furnishings increased while cycle lengths in apparel shortened. Apparel

cycle lengths in the first half ranged from 6+ to 12 years and in the second half of the

period ranged from 3 to 8+ years. Home furnishings cycles lasted typically 3 years in the

first half of the period but ranged from 1+ to 9 years in the latter half of the period. There

were multiple instances in the data suggesting a time lag between purple occurring first in apparel and then in home furnishings.

<div align="center">*Blue*</div>

Blue was one of the few colors that exhibited similar numbers in home furnishings and apparel. Blue was the only color to have the same ranking (3rd) in apparel and home furnishings. In both categories there were few periods of disappearance, and some behavior associated with the term classic was observed, particularly in the first half of the period. Similar to other colors, the apparel and home furnishings data exhibited few parallel cycles. There were several periods when patterns appeared opposite of each other. Cycle length change was observed in both cases; each had cycle length ranges of one short, mostly medium and one long. Home furnishings cycles went from 4 to 10 years, displaying no obvious increasing or decreasing pattern. The first cycle in apparel spanned the entire half of the period; after that the cycle lengths clearly shortened, not exceeding 7 years.

<div align="center">*Green*</div>

Similar to yellow, green was observed almost twice as much in home furnishings as in apparel. There were only four periods when green completely disappeared in home furnishings. Instances of disappearance were more common in apparel. The cycles in home furnishings and apparel did not exhibit parallel behavior from 1969 to 2009. Often the data exhibited opposite behavior, trending up while the other trended down. The cycle lengths in apparel and home furnishings were varied. Each had mostly short and medium length cycles and one long (10 years) cycle. No definite conclusion could be made as to whether the lengths of cycles lengthened or shortened in either home furnishings or apparel. In general there appeared to be a time lag between

apparel and home furnishings, with home furnishings cycles appearing to be precursors for cycles in apparel. The more typically short cycles in apparel often fell within longer cycles in home furnishings.

<div align="center">*Brown*</div>

Brown had the highest incidence of all colors in home furnishings, accounting for 25% of the data collected. In apparel brown ranked 4th highest among all colors accounting, for only 13% of the data collected. Brown in apparel more often disappeared or nearly disappeared than it did in home furnishings. To some degree in apparel and particularly in home furnishings, the consistent appearance of brown suggested that it could be characterized as a classic fashion. Just three cycles were seen in home furnishings because brown only dropped below 5% twice over the 40 year time period. There were more and therefore shorter cycles in apparel with a mix of lengths lasting between 2 and 10+ years. There was a distinct change and increase over time in cycle lengths from 1969 to 2009 in home furnishings. In apparel the lengths of cycles changed, but cycles did not clearly lengthen or shorten. In the latter half of the period, cycle lengths increased and decreased. Although there were several instances of similar behavior exhibited in the home furnishings and apparel data, overall, the cycles were not parallel. Cycles in home furnishings seemed to be precursors to cycles in apparel.

<div align="center">*Grey*</div>

The data for grey was similar in apparel and home furnishings in that both showed low incidence and short cycle lengths typically lasting between 2 and 3 years. There was only one time (in apparel) when the incidence of grey accounted for more than 20% of the colors seen in a year for either category. In apparel and home furnishings, grey exhibited cyclical behavior with frequent periods of disappearance.

There were multiple (8 in home furnishings, 11 in apparel) cycles which were almost exclusively short cycles found in both data sets. Thus, like orange, grey sometimes had the look of a fad. Even though there were many short cycles, they were not parallel in most instances, and it appeared that ongoing cycles in home furnishings were precursors to cycles in apparel. The data did not demonstrate a pattern of the lengths shortening or lengthening.

Black

While black ranked first in incidence in apparel, it was only 7th in home furnishings. Its appearance was higher in apparel in the latter half of the period, suggesting its increasing importance. The graph for home furnishings was similar to those for orange and grey, with frequent periods of disappearance and low incidence. There were only four cycles in apparel because black's incidence infrequently dropped below 5%. Overall, black in apparel showed the continuity of a classic. Home furnishings and apparel graphs did not exhibit parallel patterns and often displayed opposite behavior. The relatively consistent appearance and high peaks of black in apparel suggested that it might have been a predecessor to cycles in home furnishings. Cycle lengths in home furnishings varied (ranging from 1+ to 6 years), but were mostly short; they did not appear to trend shorter or longer over the period. Cycle lengths in apparel progressed from 3 to 19 years over the 40 year period.

White

White ranked second in appearance as a dominant color in home furnishings images and 6th in apparel. For both categories, however, there were only two points when white's incidence dropped below 5% of the data in a year. Although white was observed less in apparel, the patterns of both graphs suggested that it was a classic fashion in each case. Except for 2009, the incidence of white in home furnishings was the highest between the mid-1980s and mid-1990s. In apparel, white was observed

more in the latter half of the period. There were some parallel patterns in home

furnishings and apparel, including periods of simultaneous trending up or down behavior.

Cycles were ongoing in both categories in 1969 and 2009, making it difficult to get a true

read on lengths. Both had a 24 or more year long cycle, as well as one of 11 or more

years. The longest cycle in apparel was at the end of the period. In home furnishings, a

cycle was at 11 years in 2009 following one of 27 years.

Conclusions

The goal of this study was to compare fashion cycles in 10 color families in home

furnishings and apparel, looking for similarities and differences. They were different in

the rankings of overall incidence in magazine images. In home furnishings, the top two

were brown and white; in apparel they were black and red. Blue was third for both, but

the fourth and fifth ranked colors were different (green and yellow in home furnishings,

brown and purple in apparel). Based on these conclusions there was no support for the

premise that colors begin in apparel and accessories and trickle down into home

furnishings. There were some colors that appeared in apparel initially, but other colors

appeared in home furnishings initially. In both categories, there were few colors that

appeared consistently enough that they never or almost never disappeared from the

magazines. Brown in home furnishings disappeared just once in one year, and red in

apparel was never completely gone. Conversely, there were some colors that

disappeared regularly for one or more years. Of all colors, grey was observed the least

in home furnishings; it didn't appear until 1979 and then had periods of up to five years

of not being seen. Orange was 10th ranked in apparel; it disappeared from observations

nine times for one to six years.

Overall, the colors that were seen the most in each of the categories also were

the colors that tended towards the longest cycles, which could mean the fewest

complete cycles. Colors with shorter cycles typically had more of them. The shortest

complete cycle, as measured in this study, was two years; its pattern went from no or a very low incidence in one year to a peak of some level in the next year, and back down to where it started in the following year. There were numerous examples of this, even some in colors that were frequently observed. Completed cycle lengths ranged from 2 to 27 years. Excluding the cycles that were midstream in 1969 and 2009, there were 70 short cycles of up to 4 years, 28 medium length cycles of 5 to 9 years, and 11 long cycles of 10 or more years. Not in this tally are some of the very longest apparent cycles that were begun before 1969 or continuing in 2009. Balkwell and Ho (1992) found cyclical behavior in skirt lengths and décolletage length in women's clothing in the U.S. and in Taiwan. Skirt lengths were found to repeat every six to seven years in the U.S and four to five years in Taiwan. Skirt width also displayed cyclical behavior every three to four years in the U.S. but less consistently in Taiwanese clothing. In floor coverings, Ulrich and Lee (2008) observed the clearest bell-shaped cyclical patterns in periods of 7 to 8 and 21 years; some shorter cycles were also seen within longer term trends.

The data suggested that some colors with very long cycles or fluctuating continuity over a long period could be termed classics. This was the case for brown, blue and white in both categories, and red and black in apparel. Although colors are not generally cited as examples of fads, the short cyclical patterns and gaps in the appearance of orange and grey marked them as either a fad or similar to a fad.

Color cycles in home furnishings and apparel did not generally become shorter or longer towards the end of the period compared to early in it. Cycles often bounced back and forth between short and medium lengths, and sometimes short cycles would follow long ones. Some colors in home furnishings and some in apparel seemed to be trending towards shorter or longer cycle lengths. Thus, the idea that fashion is moving consistently faster now than in the past was not substantiated in this research. The

study also didn't show that cycles in apparel are faster or shorter than those in home furnishings as suggested by Linton (1994). Cycle lengths varied by color and category.

The differences between home furnishings and apparel in incidences of colors seen in advertisements and on magazines' editorial pages presumably reflected the advertisers' and editors' perceptions of colors that would appeal to their customers. This may illustrate Nystrom's (1928) assertion that one of the factors affecting fashion change is dominating ideals involving large numbers of people. Certain colors could be perceived by a majority as an "apparel" or "home furnishing" color, thereby influencing the incidences of different colors. Based on the data, it can be inferred that consumers perceive black and red more as apparel colors and brown and white more as home furnishings colors. Blue would be the only color that shows equal acceptability in either category.

Overall, there was little evidence of clearly parallel patterns of change between home furnishings and apparel. The data as a whole also did not conclusively support either that color cycles begin in apparel and move to home furnishings, or vice versa. For yellow, orange, blue, grey and white, little clear or consistent evidence of a time lag in patterns between categories could be observed. The cases where the appearance of a color in one category seemed to possibly influence its appearance in the opposite category occurred with colors that showed clear differences in incidence in apparel and home furnishings. Red, black and purple were observed much more in apparel than home furnishings, and the latter's cyclical patterns sometimes seemed to be led by peaks in apparel. The opposite was apparent for brown and green, which were seen much more in home furnishings.

Limitations

Even though the study was designed to minimize limitations, there were several that were identified prior to and during data collection. These limitations were as follows:

- All colors that were observed were in photographs in four different magazines over the course of 40 years. The colors in the pictures may not have perfectly replicated the actual colors.

- Although the Pantone color cards were always available for consultation during data collection, errors could have been made in categorizing pictures according to color.

- Lighting was always the same in the Draughon Library at Auburn University when data were collected, but a segment of data collection had to be completed at a Chicago library, and that lighting could have affected color selection in a different way.

- Because of the large number of pictures observed, an error could have occurred when entering or compiling the data.

- In early issues of *Better Homes and Gardens* and *Cosmopolitan*, many photographs were black and white, limiting the choice of pictures showing color.

- The difference in the quality of paper used in *Vogue* and *Architectural Digest* from *Better Homes and Gardens* and *Cosmopolitan* could have caused classification errors.

In this first study of its kind, color was defined by broad color families, and not by tertiary hues or value and saturation variations. The breadth of the color families could be viewed as a limitation. Also, since Pantone does not provide a dividing line between colors (e.g., where blue ends and green begins), the researcher and her advisory committee reviewed, discussed, and decided on dividing lines to delineate colors. Other researchers might apportion differently.

Previous research conducted by Richardson and Kroeber (1940) and Ulrich and Lee (2008) analyzed and plotted data using 3-year averages. This method was not used

because the actual incidences in home furnishings and apparel had to be directly compared within years. However, plotting averages would probably have reduced the instances of zero observations (i.e. low points).

<div align="center">Implications and Recommendations for Future Research</div>

There has been very limited research on color cycles in any product area, including apparel and home furnishings. Most of the studies on color in apparel have been related to color preference. Color research on cycles has only delved into architecture and interior design and has focused primarily on the cycling of categories of color from one to the next. Until now, no studies have been published applying fashion cycle research methodology to color, even though businesses, product developers and consumers can easily observe or follow color fashions. This study did that within the framework of comparing two large, fashion-driven consumer product sectors, apparel and home furnishings.

Those interested in exploring fashion cycle theory and those wishing to understand, interpret and apply color cycles in apparel and home furnishings products can both take something from my research. The findings showed that there are color cycles, but that they are not simple phenomena. Data from the last 40 years indicated that some colors were more used in apparel and others more so in home furnishings. This may have to do with the psychology of colors that consumers want on their bodies as compared to view in their spaces, or it may be influenced by potentially shorter product life cycles in apparel than home furnishings. Both could be researched further. This study also showed that color cycle lengths varied equally widely in both categories. The implication for the design and selection of products is that the length of cycles is not necessarily the same or similar with different colors or between home furnishings and apparel. Some colors seemed clearly more fashion-driven because they had shorter cycles and could disappear entirely for even several years in a row. Other colors

seemed to be classics because of their constant or near constant presence. Robinson (1958) wrote that product change was inevitable due to fashion. This was evident in this element of fashion, color, because cyclical behavior was seen.

With different colors having a greater or lesser presence and shorter or longer cycles in apparel and home furnishings, it may not be surprising that the research did not discern parallel or similar patterns of change that could inform predictions. However, these may have been difficult to find because of the breadth of the color families studied. For future research, the color families could be divided into smaller groups; for example, instead of just blue, brown or red color categories, there could be blue-green, tan and pink. If two product categories weren't being compared, these more specified colors could also be plotted based on average incidences of adjacent years. This would reduce the jagged peaks and valleys in the graphs and potentially give a better picture of the ebb and flow of cycles.

Oberascher (1994) conducted a color study using interior design journals to identify cyclical behavior in color and attributed those cycles to a time period. He identified a sequencing of colors from interiors magazines. The cycles of color from my data in home furnishings could be compared to his findings to determine if the patterns he delineated are applicable to American home furnishings and if the dates of the cycles correspond, as well. Any or all of these possibilities would contribute to an enhanced view of what appears to be the complex behaviors of color cycles. While the data was classified by magazine type, analysis was not conducted on the difference in findings. Future research can be conducted using the data from this study on the differentiation in colors offered based on magazine classification.

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APPENDIX

Color chart beginning and ending for each color category

Sample apparel and home furnishing pictures which demonstrate dominant color scheme

Yellow

PANTONE

PANTONE 12-0740

PANTONE 11-0618

PANTONE 11-0710

PANTONE 11-0609

PANTONE 11-0205

PANTONE 11-0410

PANTONE 12-0607

1

PANTONE

PANTONE 12-0822

PANTONE 12-0817

PANTONE 12-0714

PANTONE 13-1010

PANTONE 13-1016

PANTONE 13-1011

PANTONE 13-1008

11

Orange

PANTONE

PANTONE 13-1025

PANTONE 14-1119

PANTONE 14-1118

PANTONE 14-1113

PANTONE 14-1112

PANTONE 15-1218

PANTONE 14-1209

12

PANTONE

PANTONE 14-1219

PANTONE 13-1318

PANTONE 13-1407

PANTONE 11-1306

PANTONE 12-1206

PANTONE 14-1312

PANTONE 14-1311

56

Red

PANTONE

PANTONE 13-1310

PANTONE 12-1212

PANTONE 11-1408

PANTONE 12-1207

PANTONE 13-1406

PANTONE 13-1409

PANTONE 13-1408

57

PANTONE

PANTONE 19-0074

PANTONE 19-1617

PANTONE 19-1623

PANTONE 19-2118

PANTONE 19-1625

PANTONE 19-1652

PANTONE 19-2311

88

Purple

PANTONE

PANTONE 18-1725
PANTONE 19-2047
PANTONE 19-2431
PANTONE 19-2025
PANTONE 18-1619
PANTONE 18-1418
PANTONE 18-1614

89

PANTONE

PANTONE 18-3943
PANTONE 18-3840
PANTONE 18-3838
PANTONE 18-3820
PANTONE 18-3817
PANTONE 18-3812
PANTONE 18-3905

124

Blue

PANTONE 19-3947

PANTONE 19-3951

PANTONE 18-3963

PANTONE 19-3955

PANTONE 19-3850

PANTONE 19-3847

PANTONE 19-3843

125

PANTONE

PANTONE 13-5410

PANTONE 12-5209

PANTONE 12-5508

PANTONE 12-5409

PANTONE 12-5408

PANTONE 12-4705

PANTONE 12-4306

165

Green

PANTONE

PANTONE 13-5412

PANTONE 13-5313

PANTONE 12-5406

PANTONE 12-5505

PANTONE 13-5306

PANTONE 13-4804

PANTONE 14-4504

166

PANTONE

PANTONE 13-0915

PANTONE 13-0715

PANTONE 13-0613

PANTONE 13-0711

PANTONE 12-0104

PANTONE 12-0105

PANTONE 13-0607

224

83

Brown

PANTONE

PANTONE 12-0703

PANTONE 12-0000

PANTONE 13-0908

PANTONE 12-0304

PANTONE 12-5202

PANTONE 13-0905

PANTONE 13-1007

225

PANTONE

PANTONE 18-0940

PANTONE 19-1034

PANTONE 18-0928

PANTONE 18-0920

PANTONE 19-0815

PANTONE 18-1016

PANTONE 19-0617

230

Grey

PANTONE

PANTONE 16-4002
PANTONE 15-0703
PANTONE 16-3801
PANTONE 17-1506
PANTONE 18-1306
PANTONE 19-1213
PANTONE 19-0912

231

PANTONE

PANTONE 16-3802
PANTONE 16-0000
PANTONE 17-3802
PANTONE 17-1502
PANTONE 17-0000
PANTONE 18-0601
PANTONE 18-0503

239

Black

PANTONE 19-0808

PANTONE 19-0506

PANTONE 19-0000

PANTONE 19-6110

PANTONE 19-1111

PANTONE 19-0303

PANTONE 19-0506

240

PANTONE 19-4906

PANTONE 19-5212

PANTONE 19-4010

PANTONE 19-3712

PANTONE 19-4023

PANTONE 19-4013

PANTONE 19-4015

243

86

White

PANTONE

PANTONE 11-0104

PANTONE 11-0606

PANTONE 11-4802

PANTONE 11-4301

PANTONE 11-0105

PANTONE 11-1005

PANTONE 11-4303

244

PANTONE

PANTONE 11-0507

PANTONE 11-0701

PANTONE 11-1305

PANTONE 11-0601

PANTONE 11-4604

PANTONE 11-4805

PANTONE 11-4803

246

**Architectural
Digest 1998**

Vogue 1980

Who's changing the view at the top?

Cosmopolitan
1979

Architectural
Digest 2008

$300

$305

Equipment sleeveless silk shirt
hack slit. Bergdorf Goodman;
NYC. Mark Eisen bell-bottom pants. He

Architectural
Digest 1989

Vogue 1993

Architectural Digest 1975

Cosmopolitan 1983

Architectural Digest 1979

$29

Architectural
Digest 1989

Vogue 2003

Architectural
Digest 1969