

# **Icons and Avatars: Cyber-Models and Hyper-Mediated Visual Persuasion**

Natalie T. Quilty and Michael R. Solomon, Auburn University

Basil G. Englis, Berry College

## **Abstract**

In broadcast and print media the use of physically attractive models to endorse or demonstrate products is a common strategy. Indeed, source attractiveness is an integral component of the fundamental communications model. In addition to credibility and trustworthiness, the physical appearance of the model often conveys social value to the consumer. Attractive individuals tend to be rated more positively on a number of personality traits than less attractive individuals (Eagly, Ashmore, Makhijani and Long 1991; Wheeler and Kim, 1997). This positive evaluation may in fact increase the credibility of beautiful people, thereby increasing their power as persuasive communicators. With the growth of e-commerce, attention is shifting to applications of marketing wisdom to an Internet environment. Theories and findings of previous research on the effects of physically attractive models have served us well in traditional print and broadcast media, but what role will physical attractiveness play in cyberspace?

In order to address this question we will review the academic literature on attractiveness-related source effects in persuasion, highlight some current real-world examples of attempts to leverage these effects in cyberspace, and propose a research agenda germane to a better understanding of visual persuasion in cyberspace. Finally, we will present some preliminary data bearing on the potential influence of physical attractiveness in hyper-mediated environments.

## **Introduction**

The average American is exposed to at least three thousand advertisements everyday (Kilbourne 1999). Many of these ads are unsolicited and therefore often unwelcome. Advertisers are faced with the challenge of reversing this trend and attracting consumer attention. (Messaris 1997). One way to achieve this is through the use of visual cues. Visual cues play two roles in advertising. The first is to draw attention to the advertisement and the second is to elicit an emotion relevant to the product being advertised (Messaris 1997). The emotion is then used to motivate the consumer to take action (Kilbourne 1999). The traditional communications model emphasizes a linear process, which is rather static and inflexible in nature. In this model interaction between the consumer and the company is virtually non-existent. Interaction only occurs at the feedback stage once the message has been received and processed.

In a virtual environment, however, user interaction occurs throughout the entire communication process. Users essentially modify the content of the message in real time (Hoffman and Novak 1996). They do this by making personal selections at each stage of the communication process. This change raises a series of interesting research questions for both academics and practitioners. From an academic perspective questions that need to be addressed include,

- (1) How does the corpus of knowledge on the use of models in advertising apply to Internet marketing communications?
- (2) For an online model to be persuasive how should she be signified?
- (3) How does the relationship between the model and the consumer's appearance influence the effects of the communication?

From a practitioner perspective issues that need to be explored include,

- (1) Do consumers prefer to interact with a model that resembles themselves or with a highly idealized avatar who signifies an ideal of physical attractiveness?
- (2) Should the physical characteristics of a model be calibrated to the desired brand image of the product to be sold?
- (3) How will design and layout issues, such as the relative prominence of the model to the rest of the page content, influence evaluations of products featured on the site?

The aim of this paper is not to definitively answer each of these questions, but rather to explore each issue and propose possible research avenues that can or should be pursued. We will review the academic literature on attractiveness-related source effects of persuasion, draw distinctions between traditional advertising media and the Internet, and highlight some real-world examples of attempts to extend these effects in cyberspace. Finally, we will present some preliminary data bearing on the potential influence of physical attractiveness in hyper-mediated environments and propose a research agenda to develop a better understanding of visual persuasion in cyberspace.

### **Source Attractiveness in Advertising**

In broadcast and print media, advertisers attempt to persuade consumers through a combination of verbal and nonverbal cues. Central to the communication process is the selection of an attractive source. The selection of a source is complex process. Advertisers face the challenge of selecting a source that is not only attractive and credible but also with whom the target audience can identify. Sources take the form of experts, celebrities, typical customers and animated characters. In many cases it is the physical appearance of the model and in particular his or her degree of attractiveness that conveys social value to the consumer. Positive evaluations may increase the credibility of the source. Credibility and physical attractiveness of the source facilitate persuasion (Stephens and Hill 1994) and as such perceived attractiveness is said to be synonymous with persuasiveness (Mazis, Ringold, Perry and Denmom 1992; Stephens and Hill 1994).

The use of celebrities including actors, fashion models and sportspeople is an all too common strategy. Celebrities represent as aspirational lifestyle for many consumers and are often used as a form of reference for purchase behavior (Kamins 1990). The premise behind the use of celebrity endorsers is that they will not only draw attention to the brand, but also that the image values associated with the celebrity will be transferred to the product (O'Mahony and Meenaghan 1998; Till and Shimp 1998). These image values can be positive or negative. Just as positive source evaluations are expected to increase brand evaluations negative evaluations may lower them (Till and Shimp 1998).

In our society fashion models are the standard by which the attractiveness of an individual is judged (Stephens and Hill 1994). Consumers are often motivated to use

highly attractive models as a form of reference for beauty and fashion (Ashmore et al. 1996). The current proliferation of fashion models in beauty and fashion related advertising is testimony to this theory. Even in times of reduced spending, top fashion models still have the pull to compel consumers to purchase (Rudolph and Constable 1991).

The need for congruency between the image of the product and that of the celebrity (O'Mahony and Meenaghan 1998) is one that has received much attention. The 'match-up' hypothesis implies that in order for advertising to be persuasive, the image of the celebrity should be congruent with the image of the product (Kamins 1990; Solomon et al. 1992). The premise behind congruency or 'beauty match-up' lies in social adaptation theory. Kahle and Homer (1985) propose that the physical attractiveness of the celebrity endorser can provide valuable information to the consumer. The correct 'match-up' between the celebrity and the product may have a greater influence on consumer attitudes toward the product and purchase intention than endorser likeability and product involvement. Research by Kamins (1990) and Solomon et al. (1992) revealed the need for congruency between the product image and that of the celebrity when the product is attractiveness-related. For products that are attractiveness-unrelated products the need for congruity was not found to be relevant (Kamins 1990).

Despite the claim that positive and/or negative feelings toward the celebrity will transfer to the product, there is much debate as to the influence this will have on actual purchase behavior. A study by Caballero, Lumpkin and Madden (1989) on adult shoppers (19 years of age or older) revealed that positive feelings towards attractive individuals do not necessarily translate to desired behaviors or buying intentions. Their study exposed respondents to videotaped commercials for a variety of grocery products. Each commercial employed a male or female spokesperson with varying degrees of attractiveness (low, medium and high). Respondents were asked to sample the product, view the videotaped commercial and complete a questionnaire. Findings revealed that beauty is not significant in influencing behavior for grocery products.

This study implies that in advertising a holistic approach claiming that what is 'beautiful is good' is too simplistic (Kamins 1990). In attractiveness-related product categories such as cosmetics the "beauty sells" premise may hold true, but for some non-

attractiveness related products such as groceries it appears that "ugly does not necessarily hurt" (Caballero et al. 1989).

### **Physical Attractiveness as a Visual Cue**

In our culture we are conditioned to believe that "what is beautiful is good" (Eagly, Ashmore, Makhijani and Longo 1991). From the cradle to the grave we are exposed to a myriad of images of beautiful people. We are first exposed to this phenomenon as children with fairytale stories featuring beautiful people who are good and ugly people who are bad. As we move through adolescence and adulthood this notion is reinforced through television programs, music videos and fashion advertisements. Physically attractive people infiltrate every aspect of our life.

The entire physical attractiveness construct is both complex and multidimensional (Solomon, Ashmore and Longo 1992). There exists in any one culture various dimensions of good looks (Ashmore, Solomon and Longo 1996), although at any one time particular ideals may be more prevalent than others (Englis, Solomon and Ashmore 1994). Evaluation of what constitutes an attractive individual is not limited to facial features but may also be based on full-body images (Ashmore et al. 1996).

Physically attractive individuals are stereotyped as possessing both positive and negative characteristics. The source of these stereotypes is a combination of direct observation and cultural representations (Eagly et al. 1991). The media are largely responsible for constructing this cultural ideal of beauty, and our idealized images of highly attractive individuals are a simulation of reality (Messaris 1997).

While attractive people may be rated higher on a wide variety of positive personal qualities than unattractive individuals, they may also be rated higher on such negative qualities as vanity, immaturity and lack of intelligence (Kalof 1999; Wheeler and Kim 1997). Despite these negative stereotypical characteristics attractiveness is still a highly desirable social stimulus (Adams and Roopnarine 1994). From a gender perspective attractiveness generally is more central to females than males (Eagly et al. 1991). For females attractiveness is related to attributions of social competence whereas for men it has a stronger relation to attributions of integrity (Wheeler and Kim 1997).

## **Digital Media: Launching Marketing Strategies into Cyberspace**

The Internet currently attracts an estimated 150 million users worldwide (Mack 2000). It is projected that by the year 2003 as much as \$3.2 trillion in worldwide sales will occur on the Web (Selling 1999). Between 1998 and 1999 the number of retailers selling online rose from 12-39% (Snyder 1999) and online revenue increased by more than 200% in Europe and 145% in the U.S (New BCG 2000).

With these impressive growth rates advertisers are now turning to the Internet as an alternative advertising medium. The television industry generates \$55 - 60 billion in advertising revenue per year (Gaunter 2000). By 2002 Web advertising expenditures will reach \$9 billion (Mack 2000). Although still relatively small in comparison to traditional media, given the increasing number of people going online and the future introduction of Web-based television advertisers who ignore this media do so at their own peril.

### ***An Interactive Communication Medium***

Unlike traditional communications media, the Internet is an interactive medium that presents the potential for consumers to interact in a variety of ways with the visual images to which they are exposed. This interaction allows the consumer greater flexibility, and in essence greater control over what she views (Rogers and Albritton 1995). The customer has the ability to select the marketing communications she is most interested in interacting with (Hoffman and Novak 1996). This results in a shift of power from the advertiser to the consumer (Gunther 2000). Whereas traditional media are generally passive and adopt a one-to-many communication model the Internet is more active and offers a one-to-one model (Hoffman and Novak 1996), changing the emphasis of advertising from broadcast to dialogue (Hanson 2000)

As consumers navigate the Internet they often enter a state of *flow*. Flow is a cognitive state whereby the consumer becomes so engaged in her online interaction that she loses track of time and her immediate surroundings (eLab Research 2000). Flow is characterized by "(1) a seamless sequence of responses facilitated by machine interactivity, (2) intrinsically enjoyable, (3) accompanied by a loss of self-consciousness, and (4) self-reinforcing" (Hoffman and Novak 1996). For consumers to experience flow they must focus their attention on the interaction to the extent that irrelevant perceptions

and thoughts are filtered out, and there must also be a perception of balance between their level of skill and the challenge of interaction (Hoffman and Novak 1996). Those who experience flow are more likely to experience "perceived behavioral control, increased exploratory and participatory behavior and positive subjective experiences" (Hoffman and Novak 1996). However, they are also likely to become so involved with their online interaction that they may be distracted from purchase-related activities, as well as suffer from mental and physical fatigue (Hoffman and Novak 1996).

Web designers and advertisers play a pivotal role in creating and maintaining this state of flow. The challenge is to find methods of arousing the consumer to the extent that she remains motivated to continue navigating the site (Novak, Hoffman and Yung 1999). Generating motivation entails developing a site that (1) requires the consumer to focus her attention, and (2) that provides an element of challenge not beyond the user's skill level (Hoffman and Novak 1996).

The goal is to encourage extended and repeated use of the Web site and in doing so facilitate the course of persuasion. The question that needs to be addressed is 'how might a Web site be designed to stimulate consumers and maximize flow'? The answer may lie not only in basic Web page design elements, such as color and visuals, but also in the personalization of the Web interface.

### ***Online Personalization Strategies***

The interactive characteristics of the Internet provide bountiful opportunities for customization and personalization (Johnson, Lohse and Mandel 1999). Customization refers to "...the combining of individual-level information and flexible product design" (Hanson 2000, p. 450), whereas personalization is "...a specialized form of product differentiation, in which a solution is tailored for a specific individual" (Hanson 2000, p. 450). The aim here is to match personalized products to individual needs, which may result in the brand "...being presented as a symbol of individual personalities and lifestyles" (Goldsmith 1999, p. 181). In turn this may aid in building customer loyalty (Gantz 1998) and developing better products and services (Hanson 2000). Personalization and customization may be seen as a threat to mass marketing in favor of one-to-one

marketing (Hof, Green and Himelstein 1998) which both lie at the heart of relationship marketing (Hanson 2000). But how does personalization apply in a virtual environment Generally speaking online personalization involves the collection of purchase behavior and demographic information to make advertising more relevant to the consumer (Andrews 1999). The advantage of this is that users can access information faster because the Web site already knows their interests and needs (Ouellette 1999). Whereas in theory the notion of personalization on the Web appears both appropriate and justifiable the practicality and value of it in a virtual world is yet to be fully explored.

Opportunities for personalization on Web are limitless. Preference-based personalization aims to understand consumer preferences and deliver Web site content specific to individual needs. This form of personalization provides marketers with the ability to personalize each element of the marketing mix. Examples of this form of personalization include can be found at reflect.com and nike.com provide consumers the ability to create their own products. Reflect.com will also allow consumers to select their own packaging and Amazon.com recommends products based on individual consumers interests and needs. From a promotional perspective the opportunity now exists to not only personalize the content of the message, but also the source that delivers it. Web based communication sources may exist in the form of a model or an avatar. A model's role is to display or demonstrate the product. The model maybe generic as is customary in traditional media or exclusively created for the individual. Alternatively the source may take on the role of an avatar. Avatars can assist consumers navigate the site and guide them through the purchase process, often providing personalized information at each stage. An avatar may be viewed as an online sales associate or customer service representative. We refer to this ability to personalize the source as 'Iconic Personalization'.

#### Personalization Research Issues

Just how to personalize? The dilemma for marketers is to determine the appropriate form and degree of personalization needed to develop and enhance a meaningful online experience. This in turn raises a host of basic and applied research issues. For example, how do the traditional methods of market segmentation apply in a virtual world?

And, if personalization implies that companies treat each consumer as an individual rather than as part of a larger relatively homogenous segment of the market, what is the optimum balance between personalization and market segmentation, as we currently know it? High levels of personalization may result in a profuse number of niche markets, each requiring personal attention. This then poses the question 'how are common messages received and interpreted across multiple dimensions of personalization?' By personalizing products and services we are making them unique and different to those provided in a mass market. The irony of this is that in the race to 'personalize' the term itself may have been diluted of its original meaning. For if all online experiences are personalized, personalization essentially becomes a mass marketing strategy (Schrage 1999).

#### Message Sources in Cyberspace

The ability to personalize the Web interface is evident in many e-commerce categories. From financial planning companies such as Charles Schwab to beauty sites such as reflect.com, consumers can create, customize and personalize their own Web experience. One method of personalization, which lies at the heart of persuasive communication, is the ability to tailor the communication source to the needs and wants of the individual. Whereas in traditional media consumers have minimal control over the images presented to them, in cyberspace this is no longer the case. Consumers have the ability to surf through limitless sites and advertising in search of those that satisfy individual needs, wants and desires. Those outside their interests are simply disposed of with the click of a button.

#### ***Personalizing the Apparel Shopping Experience***

Of all the e-commerce categories apparel has been the slowest to take off (Hill 1999), but by the end of 2000 it is projected that apparel will be the fourth largest category with online sales projected to reach \$20 billion by 2003 (Duff 1999). Obviously, apparel is a product category that relies heavily on the use of attractive models to promote the product.

Until recently the success of apparel online sales was limited to those categories in which size is not a critical factor, such as t-shirts (Then and DeLong 1999). The quality of the online shopping experience at this time is largely determined by ease of use (Novak et al. forthcoming). Online consumers, like catalog patrons, largely rely upon size charts to make their selection.

But, the potential to enhance the online experience is waiting to be more fully developed.. In traditional apparel advertising media, fashion models aid in creating awareness, interest and desire for a product. Online models also may motivate the consumer to an immediate online purchase. With a simple keystroke, selections can be made and transactions processed instantly. This creates the challenge for advertisers to reengineer the manner in which models are used. Current technological developments provide the opportunity for a totally personalized approach to online shopping that is both challenging and motivating.

### ***Toward a Typology of Personalization***

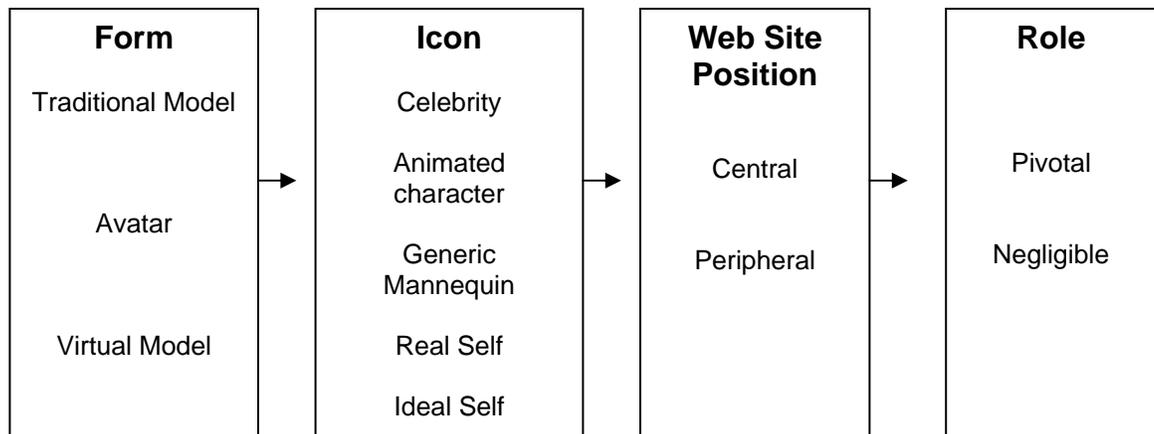
Marketers who elect to pursue a strategy of personalization are faced with many choices. Not only to they have to decide which elements of the marketing mix to personalize but also the degree to which they do so. From a promotional perspective alone the number of executional choices are infinite.. From the selection of the source to the message communicated the opportunity exists to personalize the entire communication process.

In cyberspace the use of models as a source of communication has taken on a whole new meaning. Models may exist in many forms and perform a number of roles. This highlights the need for the creation of a typology to systematically explore the differences among various versions and degrees of personalization. Figure 1 presents a preliminary typology of personalization.

The Figure highlights that at one end of the spectrum models in cyberspace can simply replicate the role they perform in print advertising, that of a drawing attention to the brand and presenting it in a favorable light. Alternatively they can perform the role of an *avatar* assisting the consumer navigate the site and make purchase selections. At the other end of the spectrum they can perform the role of a virtual model displaying and

modeling items. The consumer not only has the ability to select the items they would like to see modeled but they may also select the icon of their choice to model them. This model may be a celebrity, an animated character, a generic mannequin or a personally built real or ideal representation of themselves. Finally the source may occupy a central or peripheral position on the Web site and consequently its role may be pivotal or negligible to the online experience.

**Figure 1**  
**Typology of Iconic Personalization**



Current Personalization Activities

As technological prowess continues to accelerate, the market has responded quickly. A number of companies developing virtual models for online advertising and selling. For example, Nodna, a division of Stockholm based company Vierte Art, is an agency dedicated to virtual actors. The agency offers a variety of ‘virtualstars’ (newly created models and stars), ‘vuppets’ (mascots and animals) and ‘replicants’ (doubles or personalities). Each of these ‘actors’ can be developed to meet the needs of specific target markets ([www.nodna.com](http://www.nodna.com)).

W Interactive SARL, a French based company provides Web based virtual characters. These characters are synthetic talking faces that can deliver messages and give product information in a number of different languages. They can be created as cartoon-like people, real people or famous personalities ([www.winteractive.fr](http://www.winteractive.fr)).

Finally, Elite Model Management, the agency that represents many of the supermodels that grace the catwalks of Paris and the pages of magazines worldwide has created the virtual supermodel. Webbie Tookay is a digitally composed model. Armed with a personality profile produced specifically for the client's needs she is available for a licensing fee for all kinds of media related work including virtual fashion shows and Internet advertising. Ricardo Bellino, Director of Elite Illusion 2K predicts that in the future virtual models will become as widely used as real ones (Coren 1999).

### **Current Applications of Personalization Technology**

As noted previously, some of the most exciting potential applications of personalization technology can be found on apparel-related sites. There are sites that allow a 3D view of apparel items on real models (3Dshopping.com), that provide optional commentary from animated floating heads (boo.com), and the ability to chat live with a personal consultant (Styleclick.com). Further still there are a growing number of sites that allow consumers to select or build their own model. For example:

- Boo.com provides consumers with the ability to select, drag and drop clothes onto a 3D faceless rotational mannequin. In the future they plan to incorporate photographs of shoppers onto cyber bodies that will mimic the consumer's speech patterns (Echikson 1999).
- On the LandsEnd site consumers enter their measurements and other details such as face shape, skin tone, hair style and color and the system generates a virtual model in the consumer's own image. It will also recommend what size you need and provide advice on styles to flatter your figure.
- J.C. Penney offers a service similar to LandsEnd exclusively for fuller-figured women (Bradley 1999).
- Purpleskirt.com has a number of sketched models representing a variety of body shapes that consumers can choose from.
- Eyewear manufacturer Rayban allows consumers to select a photograph of a real customer to view styles on, or alternatively they can scan in their own photograph.
- Cosmopolitan has developed its own CD-ROM called Cosmopolitan Fashion Makeover Deluxe. Consumers take their own body measurements and enter them

into the computer to build their own model. Users can also scan in a photo of their face to put on top of the body and select from a number of prerecorded voices (Bradley 1999). After viewing items on their model consumers can be transported to Macy's Web site to complete their purchase.

INSERT SCREEN GRABS HERE

### ***Obstacles to Success of Online Personalization Strategies***

The success of this technology to date is evident in the growing number of visitors to particular sites as well as increasing online sales. In 1998 the LandsEnd site attracted 15 million visits (Hill 1999) and quadrupled its Net sales to \$61 million (Echikson 1999). Since the introduction of their virtual model more than 300,000 shoppers have created their own models (Bradley 1999).

However, ongoing satisfaction and use of technology is ultimately dependent on how satisfied the customer is with the appearance and fit of the item on themselves once they receive their purchase. What if it doesn't look like it does on the virtual model? Is this a fault of the technology or the consumer? If the technology, as it claims, provides an accurate representation based on the body dimensions given, is it a case that the consumer was 'incorrect' in their description of her body? After all, if you lie to the model she will lie to you. The projection of oneself into cyberspace therefore is problematic. When utilizing this technology how accurate are consumers in their descriptions, how true are they to themselves and does it really matter if what they project is accurate or not? More importantly what impact does this have on the psychological variables of self-concept and self-esteem? It is this, the ability to create a model in ones own likeness, which perhaps offers the most potential from a persuasion perspective and raises a number of self-concept issues.

## **The Self in Cyberspace**

The Internet can be thought of as not a simulation of a real world, but as an alternative real world (Novak et al. 1999). It creates a symbolic environment, a place in which one world can be replaced with many possible worlds (Nunes 1995) and in essence multiple selves. As previously alluded to, the emerging ability to let consumers create their own model raises a host of interesting research issues. For example, do consumers prefer a “matched” look to their own? Or, do consumers prefer to view an ideal of beauty that may be personally unreachable?

Richins’ (1991) work on exposure to models in magazines indicated that the idealized images presented in advertising raised respondents' comparison standards for attractiveness and lowered satisfaction with their own level of attractiveness, generating negative feelings about the self. In one study more than 50 percent of respondents compared themselves with the models in advertisements for clothing, personal care and cosmetics 50 percent of the time or more. Approximately one third of these respondents also reported dissatisfaction with their own appearance after viewing such advertisements.

In opposition to these findings a study of clothing-and- textile students found that respondents did not compare themselves to the idealized images presented to them, nor did they accept the media’s construction of an ideal female as being realistic (Lennon, Lillethun and Buckland 1999). An additional study of 63 college students revealed that 89% (56 out of 63 respondents) preferred a realistic model to a fashion model (Then and DeLong 1999). Further research revealed that the majority of teenagers view images of models presented in magazines as unrealistic with many preferring to see ‘real’ girls (Milkie 1999).

Conflicting results imply that for particular segments of the market advertising exposure may have a temporary impact on self-feelings, whereas with others it may have a long-term cumulative effect (Richins1991). Furthermore, the decision by consumers to select a 'matched' look or one representing an ideal of beauty is not as straightforward as one would think. Despite critics’ and consumers’ disapproval of the unrealistic representation of females in the media, it would appear that even when given the choice some consumers would still prefer to be guided in their product choices by an idealized image rather than a realistic representation. The selection between real and ideal

representations may vary depending upon the consumer's self-concept and possibly the product category being advertised. Within the sphere of self-concept lies the issue of body image and how satisfaction with one's physical self may influence the selection of a model.

### *Effects of visual comparative cues on self concept*

Body cathexis is "the degree of feeling of satisfaction or dissatisfaction with various parts or processes of the body" (Secord and Jourard 1953). These feelings are said to be central to an individual's self-concept. The attitude that one holds toward their body and the subsequent effect of advertising is said to be a function of the existence of masculine and feminine personality traits (Franzoi 1995), and the degree to which individuals view their bodies as an object or process (Franzoi 1995; Martin and Gentry 1997).

Advertisers have received much criticism for the portrayal of highly attractive and extremely thin females. Critics claim that these images promote an unrealistic ideal resulting in an array of physical, social and psychological problems (Kilbourne 1999; Richins 1991; Thornton and Maurice 1999; Gustafson, Popovich and Thomsen 1999). These detractors claim that the images of attractive models portrayed in advertising act as a mechanism for social comparison whereby evaluation occurs between the self and the image presented. The actual effect this has on a consumer's self-perception and self-esteem depends upon the motive for comparison (Martin and Gentry 1997). Conflicting research results do little to elucidate the relationship between these idealized images and self-concept. On one hand some studies revealed a negative association (see Richins, 1991; Lavine, Sweeney and Wagner, 1999; Thornton and Maurice, 1999), whereas others revealed no association (see Lennon et al. 1999) and others revealed a positive one (Myers and Biocca 1992).

Myers and Biocca's (1992) research into what they term the "elastic body image" suggests that a female's body image is constructed through a number of reference models, namely the socially represented ideal body, the individual's internalized ideal body, the present body image and the object body image. The overall subjective evaluation of the physical self or body image held by an individual is unstable and is responsive to external

social cues. Their research on female university students aged 18 to 24 revealed that an individual's body shape perception can be changed with less than 30 minutes exposure to television. They also found that young females had a tendency to overestimate their body size, which seemed to indicate that they may have internalized the idealized body image presented by advertising. Given that in a virtual world consumers have the ability select their own reference model it would be interesting to see the effect this would have on their own body image.

### **Preliminary Study**

To further explore some of these issues a preliminary study was undertaken using a convenience sample of forty-eight female undergraduates majoring in Apparel Merchandising and Production Design at a southern university. These students were enrolled in a Consumers and Material Culture class and completed the research for extra credit. All respondents remained anonymous for the entire project.

The research was completed in four stages. Part A required respondents to estimate, to the best of their knowledge their body dimensions in inches. Measurements were taken for shoulders, chest, waist and hips. In Part B Rook's (1985) body cathexis scale was utilized to measure students' degree of satisfaction with 26 body parts. This scale is an abbreviated version of the original cathexis scale developed by Secord and Jourard (1953). Part C required respondents to access the LandsEnd Web site and create a personal model using the sites "Your Personal Model™ for Women". In the basic model application respondents are asked to create their model by selecting from predetermined descriptions (narrow, broad etc) for their shoulders, hips, waist and bust. Respondents were also asked to use a measuring tape to determine their actual body dimensions.

For Part D respondents were asked to answer a series of question relating to their online shopping behavior, prior use of virtual models and future purchase intentions. In addition, respondents were provided with a set of six virtual models and were asked to select the model that, (1) most closely resembled themselves, (2) that they would most like to see on a Web site, (3) that they would least like to see on a Web site, (4) that they would most like to see modeling an item on a Web site.

## Results

Due to the small sample size analysis was largely limited to measures of central tendency, univariate and bivariate descriptive statistics. As findings cannot be extended beyond the sample, results should be interpreted with care. The sample was largely comprised of freshman (33%) and sophomores (28%) with an average age of 20.5 years.

Findings revealed that the three most highly rated body parts were eyes, ears and body hair. The three least favorable were hips, weight and profile. Respondents' dissatisfaction with their weight, hips and profile is not surprising given the thin ideal presented in the media. Respondents' mean measurements (actual) in inches were shoulders 15.9, chest 34.8, waist 27.8 and hips 36.5. A paired sample t-test did not reveal any statistically significant difference in the estimated measurements taken from Part A and the actual measurements provided in Part C. One possible reason for this is that sample respondents were apparel majors and therefore given the nature of their studies may have a better knowledge of their body dimensions than the average female consumer.

Analysis of the LandsEnd models created by respondents revealed that the body profile most likely to be chosen by the sample was one characterized by medium shoulders and hips, a well-defined waist and small-medium bust. However, when presented with this model and five others of varying dimensions (Part D) the majority of respondents (28%) selected a model characterized by medium shoulders and hips, a well-defined waist and a large bust as one that was most like them. The main point of difference was the size of the bust. This model also proved to be the model respondents would most like to see on a Web site (36%) and most like to see modeling an item of clothing (28%).

FREQUENCIES PROVIDED IN TABLE

INSERT FIGURE - most preferred and least preferred side by side.

The model respondents would least like to see on a Web site was one characterized by broad shoulders, a large bust, well-defined waist and wide hips (72%). This model also ranked the lowest as one that they would like to see modeling an item (5%) and least resembled the sample (5%). These preliminary findings appear to indicate

that consumers would prefer to see an image closer to the social constructed ideal of beauty than one that matches their own. Closer analysis revealed that all of the 31% of respondents that indicated a preference for a model with a body different to the own, stated that they desired a body that was thinner, more toned and curvaceous. This lends further support to the desire for an ideal image. At least within the sample, when given the option consumers are more likely to project or select an ideal as opposed to a real image.

Fifty-nine percent of respondents indicated that they are likely to purchase apparel online in the future. However, off the 41% of respondents that had previously purchased apparel online only 9% had visited a Web site that uses models as guides to assist with purchase decisions. Respondents were somewhat neutral in their opinion as to how helpful these models were but agreed that they were important. Likewise only 9% of respondents had actually created a virtual model. Respondents felt that these models were not as helpful as they were important. Both of these findings indicate that regardless of their role, models are an important factor for consumers' online experience. However, it would appear the models that are currently being used are not as helpful as they should be. Considering the level of commitment and investment required to provide this feature it appears the technology is falling short of consumer expectations.

### **Study Limitations**

The characteristics of the sample can be seen as one of the major limitations of the preliminary study. It could be said that Apparel and Merchandising students are somewhat of a biased sample in that they may have a greater knowledge on issues of body image and fashion related advertising than the average consumer. Where as this may be true it is pertinent to point out that this is also a group who is more likely to be at risk of the negative effects of advertising (Lennon et al. 1999).

The size of the sample also provides another limitation. With such a small number of respondents it is not possible to generalize findings beyond the sample. A further large-scale study with a more representative sample would be required to substantiate findings.

## **Directions for future research**

One of the aims of this paper was to propose a research agenda for academics and practitioners. During the course of discussion what has emerged is a number of research issues fundamental to understanding persuasion in a virtual world. The issue of personalization in a virtual environment is one that raises a host of research questions. Further research is required to explore what consumers seek in a personalized experience, how important it is to them and what value it adds to the online experience.

Within the realm of personalization lies the ability for consumers to self-select advertising images including models and avatars. Questions that need to be addressed include, 'in what situations should consumers be granted the ability to select the models they wish to view'? Furthermore, 'in which situations is an avatar more appropriate than a model and to what extent should their online role be'? Also, 'what type of model or avatar will be the most effective'? For instance, 'in which situations are celebrities more persuasive than animated characters, a traditional model or a representation of the consumer'? 'What impact do these models have on the consumers' evaluation of the Web site'? 'What effect does it have on their intention to purchase, their motivation to return, their attitude towards the product and advertiser'?

This then leads to the issue of matching avatars and models not only to products but also to consumers. Specifically, 'how does the current body of knowledge on product/source congruency apply in a virtual environment'? 'Is it possible to formulate a taxonomy of different categories of models and avatars to various online product classifications'?

The issue of self-concept and how it affects and is affected by Internet advertising is also an important consideration. We already recognize that self-concept is a moderating variable in evaluating advertising effectiveness. The feelings that consumer have about themselves can influence how they react to both the advertisement and the product being advertised (Mehta 1999). Likewise the reverse may also be true. Exposure to advertising models may have an effect on the individual's self-perception and self esteem (Martin and Gentry 1997). The Internet places the consumer in the driver's seat, granting them the ability to select their own images. What is yet to be explored is how

this will affect their self-concept and how their self-concept affects the selection and use of models and avatars.

A significant portion of research into physical attractiveness phenomena, including its role in advertising and the effect it has on consumers self concept has largely focused on women. This is even more the case when the research is applied in apparel purchasing contexts.. More attention needs to be placed on the effect that these issues have on both genders. Finally, a virtual world holds no geographic boundaries and as such cross-cultural implications need to be explored.

## **Conclusion**

With the growth of e-commerce the ramifications for advertisers and marketers are clear. The Internet provides the opportunity for more effective and efficient target marketing at a global level. However, it also forces us to question the current body of knowledge that governs advertising strategies in traditional media. Our current knowledge of persuasion and physical attractiveness in advertising has served us well, so far. But as we move from a 'real' world where advertisers are the decision-makers, to a virtual one in which the consumer takes control the rules of the game change. The physical attractiveness and advertising paradigm to which we have long adhered has in essence been transported into an interactive environment, forcing us to reassess all aspects of the persuasive communication process. A picture may be worth a thousand words, but the precise meaning of those words is yet to be determined.

## References

- Adams, Gerald R and Jaipaul L. Roopnarine (1994), "Physical attractiveness, social skills, and same-sex peer popularity, " *Journal of group Psychotherapy, Psychodrama & Sociometry* 47, 1 15-36.
- Andrews, Kelly J (1999), "Top 5 ways to get sticky," *Target Marketing* 22, 9 26.
- Ashmore, Richard D., Michael R. Solomon and Laura C. Longo (1996), "Thinking About Fashion Models' Looks: A Multidimensional Approach to the Structure of Perceived Physical Attractiveness," *Personality and Social Psychology Bulletin* 22, 11 1083-1104.
- Blair, Kristine (1994), "Selling the self: women and the feminine seduction of advertising," *Women and Language* 17, 1 20-25.
- Bradley, Barbara (1999), "Web Spins High-Tech Home Shopping Model," *The Commercial Appeal*, June 13, 1
- Caballero, Marjorie J., James R. Lumpkin and Charles S. Madden (1989), "Using Physical Attractiveness as an Advertising Tool: An Empirical Test of the Attraction Phenomenon, " *Journal of Advertising* 29 (August/September), 4 16-22.
- Coren, Victoria (1999), "Women: Next year's models The first computer-generated supermodel has arrived...and a chimp that can talk," *The Guardian*, July 27, 7.
- Duff, Mike (1999), "Apparel On-line: apparel grows out of baby clothes fast," *Discount Store News* 38, 23, 15.
- Eagly, Alice H., Richard Ashmore, Mona G. Makhijani and Laura C. Longo (1991), "What is Beautiful is Good, But...: A Meta-Analytic Review of Research on the Physical Attractiveness Stereotype," *Psychology Bulletin* 110, 1 (July) 109-126.
- Echikson, William (1999), "Designers Climb Onto the Virtual Catwalk," *Business Week* 3650, 164-166.
- eLab Research on Flow. Available online: [WWW.2000.ogsm.vanderbilt.edu/flow.html](http://WWW.2000.ogsm.vanderbilt.edu/flow.html). Accessed 3/25/00.
- Englis, Basil G., Michael R. Solomon and Richard D. Ashmore (1994), "Beauty Before the Eyes of Beholders: The Cultural Encoding of Beauty Types in Magazine Advertising and Music Television," *Journal of Advertising* 23, 2 49-64.
- Franzoi, Stephen L (1995), "The Body-As-Object Versus The Body-As- Process: Gender Differences and Gender Considerations, " *Sex Roles* 33, 5/6 417-437.

- Gantz, John (1998), "The web gets personal," *Computerworld* 32, 43 1.
- Goldsmith, Ronald E (1999), "The personalized marketplace: beyond the 4Ps," *Marketing Intelligence & Planning* 14, 4 178-185.
- Gustafson, Robert, Mark Popovich and Steven Thomsen (1999) "The 'thin ideal,'" *Marketing News* 33, 6 22.
- Gunther, Marc (2000), "When technology attacks!," *Fortune* 141, 5 (March) 152-160.
- Hanson, Ward (2000), *Principles of Internet Marketing*, Cincinnati, Ohio:South-Western.
- Hill, Suzette (1999), "E-tailing: They'll never buy apparel on-line right?," *Apparel Industry Magazine* 60, 9 (September) 26-33.
- Hof, Robert D., Heather Green and Linda Himelstein (1998), "Now It's your Web," *Business Week*, 10/05/98, 3598 164-171.
- Hoffman, Donna L. and Thomas P. Novak (1996), "Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations," *Journal of Marketing* 60, 3 (July) 50-68.
- Johnson, Eric J., Gerald L. Lohse and Naomi Mandel (1999), "Designing Marketplaces of the Artificial: Four Approaches to Understanding Consumer Behavior in Electronic Environments," paper presented at the INFORMS conference Marketing and the Internet, Cambridge, MASS
- Kahle, Lynn R and Pamela M. Homer (1985), "Physical Attractiveness of the Celebrity Endorser: A Social Adaptation Perspective," *Journal of Consumer Research* 11, 4 8-
- Kalof, Linda (1999), "Stereotyped Evaluative Judgements and Female Attractiveness," *Gender Issues* 17, 2 68-83.
- Kamins, Michael A (1990), "An Investigation into the "Match-Up" Hypothesis in Celebrity Advertising: when Beauty May be Only Skin Deep," *Journal of Advertising* 19, 1 4-13.
- Kilbourne, Jean (1999), *Deadly Persuasion*, New York: Free Press.
- Lavine, Howard., Donna Sweeney and Stephen H. Wagner (1999), "Depicting Women as Sex Objects in Television Advertising: Effects of Body Dissatisfaction," *Personality and Social Psychology Bulletin* 125, 8 1049-1059.
- Lennon, Sharon J., Abby Lillethun and Sandra S Buckland (1999), "Attitudes toward social comparison as a function self-esteem: Idealized appearance and body image," *Family and Consumer Sciences Research Journal* 57, 4 379-405.

Mack, Tim (2000), "Electronic marketing: What you can expect," *The Futurist* 34, 2 40-44.

Martin, Mary C. and James W Gentry (1997), "Stuck in the model trap: The effects of beautiful models in ads on female pre-adolescent and adolescents," *Journal of Advertising* 26, 2 19-33.

Mazis, Michael B., Debra Jones Ringold., Elgin S. Perry and Daniel W. Denman (1992), "Perceived Age and Attractiveness of Models in Cigarette Advertisements," *Journal of Marketing*, 56 1 22-38.

Mehta, Abhilasha (1999), "Using self-concept to assess advertising effectiveness," *Journal of Advertising Research* 39, 1 81-89.

Messaris, Paul (1997), *Visual Persuasion*, CA: Sage.

Milkie, Melissa A (1999), "Social Comparisons, Reflected Appraisals, and Mass Media: the Impact of Pervasive Beauty Images on Black and White Girls' Self-Concepts," *Social Psychology Quarterly* 62, 2 190-210.

Myers Jr, Philip N and Frank A. Biocca (1992), "The Elastic Body Image: the Effect of Television Advertising and Programming on Body Image Distortions in Young Women," *Journal of Communications* 42, 3 108-133.

"New BCG Report Shows European Market to reach \$44.6 billion by 2002," Available online [www.shop.org/research](http://www.shop.org/research) accessed 3/23/00.

Novak, Thomas P., Donna L. Hoffman and Yiu-Fai Yung (forthcoming), "Measuring the Customer experience in Online Environments: A Structural Modeling Approach," in *Marketing Science*, special issue on Marketing and the Internet.

Nunes, Mark (1995), "Jean Baudrillard in cyberspace: Internet, virtuality, and postmodernity," *Style* 29, 2 314-328.

O'Mahony, Sheila and Tony Meenaghan (1997/98), "The impact of celebrity endorsements in consumers," *Irish Marketing Review* 10, 2 15-24.

Oullette, Tim (1999), "Web personalization," *Computerworld* 33, 51 60.

Richins, Marsha L (1991), "Social Comparison and the Idealized Images of Advertising," *Journal of Consumer Research* 18, 1 (June) 71-83.

Rogers, Everett M and Marcel M. Albritton (1995), "Interactive communication technologies in business organizations," *The Journal of Business Communication* 32, 2 (April) 177-196.

Rook, Dennis W (1985), "Body Cathexis and Market Segmentation," in *The Psychology of Fashion*, ed. Michael R. Solomon, Lexington, MASS: P Lexington, 233-241.

Rudolph, B and A. Constable (1991), "Beauty and the bucks," *Time* 138, 14 38.

Schrage, Michael (1999), "Mine, all mine," *MC Technology Marketing Intelligence* 19, 8 20.

Secord, Paul F and Sidney M. Jourard (1953), "The Appraisal of Body-Cathexis: Body Cathexis and the Self," *Journal of Consulting Psychology* 17, 5 343-347.

"Selling on the Web," (1999) *Sales and Marketing Management* 151, 8 (August) 8A-10A.

Solomon, Michael R., Richard Ashmore, and Laura Longo (1992), "The Beauty Match-Up Hypothesis: Congruence Between Types of Beauty and Product Images in Advertising," *Journal of Advertising*, 21 (December): 23-34.

Snyder, D A (1999), "E-retailing: A brave new money-making world," *Global Cosmetic Industry*, 164 6 76-80.

Stephens, Debra L and Ronald P. Hill (1994), "The beauty myth and female consumers: The controversial role of advertising," *Journal of Consumer Affairs* 28, 1 137-154.

Till, Brian D and Terence A. Shimp (1998), "Endorsers in advertising: The case of negative celebrity information," *Journal of Advertising* 27, 1 67-82.

Then, Nicole K and Marilyn R DeLong (1999), "Apparel shopping on the Web," *Journal of Family and Consumer Sciences* 91, 3 65-68.

Thornton, Bill and Jason K. Maurice (1999), "Physical attractiveness contrast effect and the moderating influence of self-consciousness," *Sex Roles* 40, 5/6 379-392.

Wheeler, Ladd, and Youngmee Kim (1997), "What is beautiful is culturally good: The physical attractiveness stereotype has different content in collectivistic cultures," *Personality and Social Psychology Bulletin*, 23, 8 (August), 795-800.