

# Chapter 18

## Virtual Identities from Virtual Environments

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### ABSTRACT

*The creation of identities in immersive online digital environments has become commonplace in consumer behavior. Consumers frequently enter into socially networked, computer mediated environments (CME's) as avatars. A user can design his or her avatar by choosing typologies of facial features, body types and clothing styles. The chapter concerns Avatar analysis as a system for generating and analyzing consumer information of practical value to marketers. Avatar analysis enhances understanding of brand perceptions and meanings, discovers new ways of positioning and differentiating brands, and provides insights for improving the effectiveness of brand communications. Using websites such as Second Life to draw avatars, consumer identity projections are elicited based on consumers' perceptions and interpretations of their own digital figure drawings i.e., virtual social identities of consumers and brands. These identity projections disclose their real and ideal selves, brand-as-a-person, and imagery of a typical brand user.*

### AVATARS AND PSYCHOLOGICAL PROFILES

Avatars serve to mirror their creator's self-identity and serve as a medium for self-disclosure. Self-identity may be defined as the unique character of one's self, as distinguished from others. Forms by which self-identity is disclosed may be either realistic or imaginary. Self-disclosure of one's

identity may relate to a hobby, opinion, capability, or personal attractiveness. Self-disclosure is relatively consistent regardless of the form in which self-identity is presented (Kang and Yang, 2006). Self-identity as portrayed by an avatar may consciously reference the actual self, the ideal self, or an unconscious self-image. Gender and age affect the style and focus given to self-identity disclosure. Females are prone to express imaginary identities when they are unfamiliar with parties viewing their avatars. Age affects self-disclosure

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i.e., people in their 20's and 30's in discussing their avatars are more likely to disclose opinions about such matters as public affairs issues.

A study by Vasalou et al (2008) provides rich insights for the interpretation of person and lifestyle profiles. Avatars show how a face is personalized, linking special facial features and hair color and styling to the physical identity. Personality, taste and object cathexis are represented by fashion expressions e.g., individual clothes, taste in coordinating clothing outfits, special signature items displayed on the person. Avatars are a means of understanding a subject's values including group affiliations, accepted cultural norms, emotional attachments, and response to environmental experiences.

## **AVATARS AND CONSUMER INSIGHTS**

Perceptions of Avatars' traits have been studied under conditions of experimental manipulation. Nowak and Rauh (2006) used a static context for presentation of digitally created, experimenter-produced, avatars to which participants responded. Participants' perceptions of anthropomorphism, androgyny, credibility, homophily, attraction and likelihood of choice for interaction were obtained in response to experimental avatars to which they were exposed. Participants were found to choose perceived attractive and credible avatars to represent themselves. They voiced a preference for avatars that matched their own gender and regarded female avatars as more attractive than male avatars.

Avatars have also been used for applications in clinical psychology. Clinical applications include using avatars to diagnose and treat phobias, anxiety disorders, eating disorders, sexual disorders, and neurological damage. In a framework for future research in the area (Gaggioli, Mantovani, Castelnuovo, Wieberhold, and Riva, 2003), three levels of analysis involving avatars have been identified: (1) identification of salient physical

features, (2) simulation of the virtual human's behavioral realism, and (3) relational or interactional potentialities.

The fields of consumer marketing and buyer behavior have increasingly

focused on avatars. This is evidenced by recent research into the influence of virtual identities for online shopping, the impact of avatars as online customer service representatives, and even as virtual human branded product introductions available on the web. Avatars have been found to serve as effective online sales agents generating higher levels of retailer satisfaction, more positive product attitudes and stronger purchase intentions. Characteristics mediating these effects include perceptions of the avatar's attractiveness and expertise, as these interact with levels of product involvement (Holzwarth, Janiszewski and Neuman, 2006).

In one study, it was found that animated avatars do not heighten consumer trust of a product. However, the authors recommend that future studies present avatars with increased vividness, facial expressions and better synchronization with online marketing communications (Qiu and Benbasat, 2005). Intention to use avatar-related products was successfully predicted in another study (Chung, 2005). Ease of use of the avatar, its perceived usefulness, and attitudes toward the avatar were key determinants of the intention to use the avatar-related product.

## **SELF-CONGRUITY AND VIRTUAL IDENTITIES**

Covering a broad spectrum of approaches to self-congruity avatar analysis is expected to become fertile ground for future work in psychological aspects of consumption. The present work, discussed in this chapter, is interdisciplinary and has profound implications not only for marketers and marketing academicians, but also for economists and psychologists.

Self-congruity is a motive for maintaining consistency of the self. Components of self-congruity are self-esteem, self-consistency and self-knowledge. Self-image congruity is a state where a consumer's cognitive self-image matches impressions of product attributes. Self-congruent buyer behavior includes product attitudes, choices and usage in the context of various situations. A recurring theme in the literature is the issue of actual and ideal self-congruity. The relationship between self-concept/product image congruity and consumer behavior has been well established for some time (Sirgy 1982).

The moderating roles of, (a) product conspicuousness, (b) product personalization, or strong symbolic associations, and (c) personality variables has been similarly demonstrated. Product congruity with the actual and ideal self has been found to be additive in consumer choice behavior outcomes (Sirgy 1985), but also to vary in relative importance with the cultural context (Quester et al 2000).

In the past, work on self-congruity was based largely on quantitative techniques to measure and correlate self-image and product images. Typically these studies employed Q-Sort methodology, semantic differential, adjective checklists or Likert scale approaches.

Examples of self-image traits measured quantitatively might include a scale of self-concept person concept and product concept (Malhotra 1981). Another psychological trait that might be quantitatively measured and mapped to products is self-esteem. Self-esteem measurement would involve the use of the State Self-Esteem scale which is comprised of twenty five-point statements used to gauge the state measure of self-esteem at a particular point of time (Heatherton and Polivy, 1991).

Recent work by Zaltman (2003) demonstrates that innovative qualitative interview techniques probe deep and unconscious meanings that more standard quantitative techniques fail to elicit. However, Zaltman in his Metaphor Elicitation approach

does not make the leap to self-congruity—the fit between consumer and brand personalities. While Zaltman recognizes the phenomenon, the emphasis in his ZMET methodology is on consumer thinking processes in relation to brand meanings. Rather than placing the initial focus on the consumer's psychological makeup, the ZMET method begins with the consumer's selection of images that metaphorically communicate product meanings which are ultimately linked to the consumer's memory and affect systems. A complementary system for explaining consumer choice warrants exploration and testing.

Extending self-congruity theory to explain and predict consumer choice by the use of other qualitative methods, such as figure drawings as projective device, patently makes sense. However, to date, qualitative approaches employing human figure drawings seem not to have been brought into play to analyze self-congruity and consumer preferences.

Avatars are a modern version of figure drawings, which have a venerable history in psychological research. Pre-Avatar figure drawings had more flexibility, in terms of the size of the figure, its location, unique features, omission of major parts, etc. Avatars also differ from hand-drawn figures in that they allow coloring i.e., skin, eye and hair color, and clothing colors. Avatars can be esthetically drawn by people with varying artistic skills, and the options employed can be recorded.

On the other hand, there is considerable overlap between characteristics of hand-drawn figures and avatars. Avatars enable participants to construct their own personalities through which they interact with other people (Fetscherin & Latteman 2007). Participants design their own virtual characteristics and appearance, including body proportions, sexual differentiation, facial features, clothing and skin color.

Examination of the literature on figure drawings suggests the concept of an avatar analyzer (see Appendix: A Digression on the History of Figure Drawings). Unlike classical figure drawing

analysis, self-congruity analysis from avatar figure drawings relies on the consumer's projections of self images and brand personality, using his or her own drawings as a projection stimulus. That is, the consumer identifies personality characteristics in avatar figure drawings, the self-congruities connecting self and brand, together with the behavioral consequences of such connections (see Figure 1).

From an applied perspective, marketers stand to benefit from research on this new tool by learning about the most important traits specifically associated with buying perceptions and preferences. This research should improve marketing strategies with respect to psychologically defined market segmentation and product positioning. Tactically, by learning more about how personality traits affect consumer behavior, marketers can improve product designs and communications programs.

### SELF-CONGRUITY PROJECTION

Self-congruity is a process that compares beliefs about a perceived consumer self image and a product (referent) image. Self-image refers to actual self-image, ideal self-image or to brand user profile image. Person and product image comparisons made by consumers are based on

criteria of valence, strength and salience (Sirgy 1986). The self-esteem motive moderated by self-consistency effects underlies evaluative self-congruity. Self-congruity may be viewed as positive or negative. The valence of the perceived self-image combined with that of the referent self image determines the self-congruity condition.

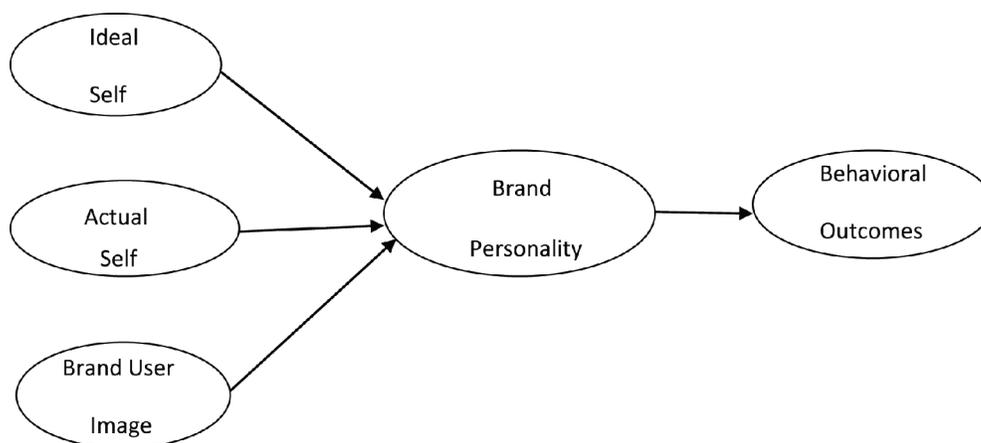
From an applied perspective, evaluative self-congruity processes result in predictable consumer outcomes such as brand preference (attitude) and brand purchase intention (behavioral intention). These derive, in large measure, from anticipation of a purely personal self evaluation or the social image consequence of a brand preference or purchase.

### RESEARCH QUESTIONS

Some questions for the research are:

- RQ1: Which characteristics of avatar drawings project particular aspects of self?
- RQ2: How do self-image traits relate to buyer behaviors?
- RQ3: What dynamic processes account for self and product congruence?

Figure 1. Virtual identities: brand personality and behavioral outcomes



Based on quantitative studies, some self-image traits that may be evidenced in avatar analysis are conventionality, emotionality, excitability, and ruggedness.

Tables 1 and 2 illustrate the *theoretical* associations made by the analyst between personal traits and Avatar indicators on one hand, and buyer behavior preferences on the other. In the actual research, projected personal traits are obtained from consumers' associations and the list of traits that fit self-congruence theory and data is refined and expanded.

Past quantitative research into aspects of the self-concept as determinants of buying preferences has yielded far less than anticipated. This is due to the failure to (a) employ appropriate concepts that are specific to buyer behavior, and (b) use appropriate projective methodologies for assigning traits to individual consumers.

**PRELIMINARY RESEARCH  
PROTOCOL**

Techniques for the analysis of Avatar drawings were developed and refined over the course of a year. During this time, interviews relating to such

*Table 1. A hypothetical measurement system*

| Personal Traits       | Avatar Indicators     |
|-----------------------|-----------------------|
| Conformity motivation | Modest clothing       |
| Arousal               | Motioning of arms     |
| Self-confidence       | Facial expressiveness |
| Masculinity           | Solid physique        |

*Table 2. A theoretical causal system*

| Personal Traits       | Buyer Behavior Preferences |
|-----------------------|----------------------------|
| Conformity motivation | Skirts and jackets         |
| Arousal               | Furs and jewelry           |
| Self-confidence       | Speculative investments    |
| Masculinity           | Pick-up trucks             |

drawings were conducted. Continual feedback from interviewers on the interview experience and substantive data analyses led to methodological refinements and the current research protocol.

Before any drawing is made, the interviewer records identifying data and preliminary answers to questions about demographic characteristics and buyer behavior for a specified category. Demographics include: gender, age, income, education, occupation. Buyer behaviors obtained include: brands tried, brands currently used, length of time used, frequency of use, usage occasions, favorite brands. The technique of administration of the projective section involves simply asking the subject to draw individual avatars that represent actual self, ideal self, brand user profile and the brand or product personality that is the focus of the research. The subject does the drawings in a computer mediated environment, such as *Second Life*.

After each drawing is reviewed in the presence of the interviewer, consumers describe the avatars in terms of physical characteristics, personality traits and life style patterns. In each case, the subject is asked to make up a story about the avatar drawing. Probes would include questions such as "Who is the story about?" "How do I differ from others to whom I might be compared?" "Who wants to associate with me?" "What am I thinking?" "How do I feel about myself?" "What are some meaningful experiences that I have had?" "How do I interact with others?"

After each story, the subject is probed for a series of associations to the figure. Finally, the subject is intensively probed about the overall congruence between the actual self and the brand, as well as the congruence between the ideal self and the brand. In both cases the subject will be asked about the meaning and evaluation of specific facets of self and brand congruence.

## **ILLUSTRATIVE IDENTIFICATION OF SELF-CONGRUITY IN CONSUMER BEHAVIOR**

The Avatar Analyzer technique is used to isolate salient attribute dimensions that describe states of agreement or disagreement between perceived self-image and referent images. Perceived self-images may be about either the actual self or the ideal (desired) self. Referent self images may be about either brand personality images or brand user profile impressions.

An example of Avatar analysis is given to show the variable numbers and types of personal and referent attribute dimensions involved.<sup>1</sup> The mix of attribute dimensions depends on individual traits and lifestyles, demographic groupings and the nature of the product category.

**Self-Congruity: Sallie and Abercrombie Jeans.** Sallie is a forty year old married stay at home mom with four children. Her self-congruity with Abercrombie jeans was explored, using the Avatar drawings she was asked to create. Sallie's avatar portrayed a blue-eyed smiling woman with blonde short hair and a blue knitted woolen ribbed ski hat with white-rimmed ski goggles attached. She also wore a pink down ski parka with a mandarin neckline, open at the neck, and a charcoal gray turtleneck sweater. She was seated on a green snowmobile on an ice blue curvy road. She was only visible from the waist up in her snowmobile. It looked like a clear day, and the background consisted of snow-covered, high-peaked mountains.

Sallie was asked to describe her avatar and the person it represented. She said the avatar was around 140 pounds and five feet nine inches. The avatar was a professional married woman with children. Traits ascribed to the avatar were adventurous, caring, nurturing and competitive. The avatar was athletic, especially with respect to winter sports. She is a careful, value-oriented shopper.

Sallie's wardrobe includes comfortable and sporty jeans. She views straight-legged Abercrom-

bie jeans as boyish and she, herself, has a boyish figure. She is not happy with her body. She feels that Abercrombie jeans are used primarily by younger women, and her desire is to look younger in these jeans. She describes the jeans as rugged, and her athletic bent classifies her as rugged, as well. The Abercrombie brand is economical, as is Sallie.

Salient congruent attribute dimensions found in this analysis include comparisons between the consumer self and the referent brand on ruggedness, economical, youth-oriented, boyish-ness.

## **CONCLUDING REMARKS**

The foregoing exposition on avatar analysis provides unique insights into aspects of the self-concept as determinants of buying preferences. Past research in this area has yielded far less than anticipated. This is due to the failure to (a) employ appropriate concepts that are specific to buyer behavior, and (b) use appropriate projective methodologies for assigning traits to individual consumers. From an applied perspective, marketers will benefit from this frame of reference by learning about the most important traits associated with specified buying preferences. This will lead to improved market segmentation and product positioning strategies. Tactically, by learning how these traits operate, marketers can improve product designs and communications programs. Additionally, marketers will benefit by learning about a brand's perceived personality and its most important associated traits. At the same time, consumer personalities that parallel those of the brand will surface through future research. This will lead managers to develop strategic insights about the customer and brand relationships. Additionally, the special nature of the brand-consumer relationships may be a basis for successful brand differentiation.

Avatar analysis is a promising new tool for basic research. With this tool, a graphical nexus is

described between self-image and product image and is linked to consumer preferences. This opens up new vistas for streams of basic and applied academic research. The technology of consumer avatar drawings opens up rich opportunities for theory-building and methodological innovations.

The approach outlined in this chapter opens a new mind-set. Based in self-congruity thinking, the new frame of reference constrains marketers to have a dual focus on the interplay of people and products. The result of this dual focus is a stronger and more positive consumer-brand engagement. Adoption of the Avatar Analyzer will bring greater understanding and control of brand preference, customer satisfaction and brand loyalty.

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## ENDNOTE

- <sup>1</sup> For their interviews, respondents supplied paper copies of their Avatar images and no electronic files were maintained. Furthermore, permission to reproduce respondent Avatars for later publication was not obtained. Therefore, the reader will have to be content with my personal case description of an avatar drawing.

## **APPENDIX**

### **Digression on the History of Figure Drawings**

Early landmark work on figure drawings traces to Karen Machover (1949). Her figure drawing test was based on extensive studies of hospital and clinical patients exhibiting psychological disorders. The figure drawing was interpreted by a trained technician, in the context of other case materials. The interpretation was augmented by questions directed at the subject about the person represented in the drawn figure. The subject was directed to make up a story about the figure and was probed as to whether the person was smart, good looking, nervous, sad, a loner, trustworthy, etc.

In Machover's test, personality assessment by the clinician was based on a number of features in the figures drawn by subjects, including: a) the head, b) social features: parts of the face, facial expression, mouth, lips, chin, eyes, eyebrows, ear, hair, nose, neck, Adam's apple, c) contact features: arms and hands, fingers, legs and feet, toes, and d) miscellaneous body features: trunk, breast, shoulders, hips and buttocks, waistline, joints e) clothing: conspicuous buttons, pockets, tie, shoe and hat f) structural and formal aspects: theme, action or movement, drawing sequence, symmetry, mid-line, size and placement, stance, perspective, type of line g) conflict indicators: erasures, shadings.

Interpretation of figure drawings led to such personality diagnoses as perfectionist, reclusive, anxiety-ridden, sexual identity conflict, evasive, compensation, other-directed, narcissist, power-driven, introverted, high aspirations, emotionally immature, self-preoccupied, retreatist, obsessive, serious.

Most of the subsequent published research on figure drawing diagnostics has focused on detection of psychiatric syndromes, cognitive maturity, or intelligence testing. Distinct populations studied have been children, adolescents and adults.

In a review of figure drawing studies from 1957-1966, it was concluded that figure drawing is a useful clinical tool. Overall global interpretations proved most reliable and valid. Individual signs from the drawings varied considerably in their reliability and validity for clinical diagnoses. There was need to control for the quality of the drawings (Swenson 1968).

Adler (1970, 1971) in his basic research on figure drawings found one primary factor—cognitive maturity, or sophisticated representation of body image-- that explained most of the variance in test interpretation. In his conclusion the test had a limited function i.e., assessing cognitive staging. Additionally, the reliability and validity of such interpretations on an individual basis was somewhat uncertain. Drawing ability was also suggested as a confounding variable in diagnostic interpretation. Ethnic, social class backgrounds and sex affect cognitive maturity scores. These conclusions were based on differences in drawing size, placement and subject drawing interpretations. Middle class were more likely than lower class to show mature body image concepts in figure drawings. Minority groups showed less cognitive maturity in their figure drawings. Adler found that men and women tested similarly on figure drawings. However, for a small segment, men were somewhat more prone to display bizarre representations. Further, diagnostic group predictions of psychological presenting symptoms were prone to failure.

Figure drawing scores have been correlated with standard IQ tests (Abell et al 1994). Figure drawings as measures of cognitive ability were found to have strong inter-rater reliabilities but modest correlations with IQ among young adults. Abell et al (1996, 1998) also found similar results in samples of children and adolescents. In general, it was concluded that figure drawings are a relatively weak proxy for standard IQ tests.

The possible confounding influence of psychopathology was introduced as a possible explanation for the modest correlations. It was further noted that figure drawings were time-bound, especially with regard to changing clothing fashions.

Another study of the relationship between figure drawing interpretation and intellectual level or academic achievement showed a lack of predictive validity (Aikman 1992).