# ASSOCIATION FOR CONSUMER RESEARCH

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**Using Virtual Models to Evaluate Real Products For Real Bodies**

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We study the effects of self-perception on consumer creation of avatars (virtual models) for evaluating digital representations of body-involving products (apparel) to be used on their real body in the real world. In our experiments, consumers used online tools to create virtual models of themselves and virtually "try on" clothing before making purchase decisions. Results show that consumer use of interactive online tools and prompting heightened awareness of their actual physical appearance significantly influences online evaluation of body-involving products. Individual differences in body esteem and preference for visual style of processing also influence consumer evaluation and use of avatars.

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# Is Beauty Only Screen Deep?
## Perceptions of Avatars in Computer-Mediated Environments

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## SESSION OVERVIEW

Residents of the online "world" Second Life spend approximately $12 million per month (in real money) on virtual land, products and services. To date more than 40 *RL* (real life) companies including GM, Dell, Sony, IBM and Wells Fargo are staking their claim to online real estate in computer-mediated environments (CMEs) including Second Life, Entropia Universe and There.com. They hope to lure the growing flood of consumers who enter these sites in digital forms called *avatars*. These digital representations socialize with one another, take virtual university courses, participate in corporate training programs, share reactions to new products, and of course shop. Eventually, these CME forums may rival traditional, marketer-sponsored E-commerce sites in terms of their influence on consumer decision-making and product adoption. Avatars are starting to spend big.

Despite this huge potential, we know very little about the best way to talk to consumers in these online environments. How will well-established findings from the *RL* regarding the impact of source credibility upon persuasion transfer to a situation where a "source" espousing adoption of a new product takes the form of an animated supermodel with exaggerated "attributes" or a bright green demon with fearsome horns?

We will stimulate dialogue when we bring together several teams of researchers to address different aspects of person perception in CMEs. Wood and Solomon's paper explores the use of avatars as endorsers in online advertising. Keeling and McGoldrick looks at how avatar attractiveness influences ratings of friendliness, social competence, parasocial interaction, trust and intentions. Our final paper from Malter, Rosa and Garbarino investigates the effects of consumers' self-perceptions on the creation of avatars (virtual models) to evaluate representations of body-involving products (apparel) for use on their real bodies in the real world.

In his role as discussant, Michael Kamins will synthesize these research programs and relate them to RL studies that address the impact of source appearance upon message acceptance. Kamins published some of the seminal work on the matchup hypothesis and is well-qualified to draw conclusions regarding the extent to which online person perception dynamics do or not mirror those in the more familiar offline world.

## EXTENDED ABSTRACTS

### "Digital Brand Personality: Does the Matchup Hypothesis Extend to Online Environments?"

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Aaker defines brand personality as "…the set of human characteristics associated with a brand" (1997, p.347). The consumer behavior literature views brand personality as an important factor to increase consumer awareness (Tan Tsu Wee 2003), preference, usage (Sirgy 1982), loyalty and trust (Aaker 1997). Furthermore, a winning personality is a critical determinant that may simplify the consumer decision-making process (Tan Tsu Wee 2003) while it fosters long-term brand equity (Aaker 1996).

How does a marketer convey this personality? This process involves the careful manipulation of marketing mix elements, particularly those communicated visually (Tan Tsu Wee 2003). Whereas numerous researchers have examined the dynamics of brand personality in offline communications platforms such as print advertisements (cf. Aitken et al 1987; Ang and Lim 2006), virtually no research informs us as to how and if these findings apply in the virtual world. Given the web's capability to generate higher levels of user interactivity and engagement than traditional advertising media, is it reasonable to assume that what works in the offline space also will work online? The scant extant research on this topic generally adopts a holistic approach; it investigates how an entire website contributes to corporate brand image (cf. Opoku, Abratt and Pitt, 2006), rather than focusing on individual visual elements. For instance, no work to date explores how (or if) well-established findings on the role of brand endorsers in traditional (real world) advertising transfer to the role of avatars in the virtual world.

From a brand management perspective, Neumeier (2003) defines an avatar as the virtual DNA of a brand; "…an icon that can move, morph or otherwise operate freely as the brand's alter ego." Despite their growing popularity, we do not know much about the persuasive dynamics of avatars (for notable exceptions see Holzwarth, Janiszewski and Neumann 2006; Wood, Solomon and Englis 2005, 2007). Indeed, companies seem to choose the avatars that will represent them on their websites rather arbitrarily. For example, Coke's digital spokesperson-an average-looking male in cartoon form, was recently changed to an average-looking female (http://www.thecoca-olacompany.com/contactus/) in photographic form, not unlike the avatar archrival Pepsi also displays on its website (http://www.pepsiusa.com/help/index.php). We find it ironic that these companies, which spend hundreds of thousands of dollars to choose and validate spokespersons for real life (RL) advertising campaigns, appear to make parallel choices rather capriciously in online formats.

In this study we examine how avatar-based advertising influences consumer perception, attitude and behavior toward the brand in online promotional contexts (n.b., to date most applications tend to use avatars merely as "props" in e-commerce applications like the Coke and Pepsi spokespeople). We devised a sequence of empirical steps to systematically investigate the differential impact of avatar types upon advertising evaluations.

We base our theoretical approach upon prior work (in offline contexts) regarding the *matchup hypothesis*. This states that the correct "matchup" between the source and the product may have a greater influence on consumer attitudes toward the product and purchase intention than the unitary dimensions of endorser likeability or product involvement (Kamins 1990; Solomon, Ashmore and Longo 1992). We began by pretesting brands in two disparate product categories to identify a set that embodies the "Big 5" attributes Aaker and others typically use (cf. Ang and Lim 2006; Tan Tsu Wee 2003) to encapsulate dimensions of brand personality. We also pretested a large set of actual avatars to identify those that embody the same personality attributes. Finally, we empiri-

cally tested the proposition that ads pairing brands and avatars with similar personalities are more effective in generating a positive attitude toward the brand and the advertised product than are ads that pair brands and avatars with mismatched personalities.

We began by verifying that source effects are as robust in the online world as in more traditional offline communications formats. A total of 113 students viewed two avatar- based advertisements for a fictitious store. Half of the respondents viewed the ads in print format and the other half viewed the same ads online. We verified that method of delivery had no significant impact on attitude towards the advertisement or intention to visit the store.

In our next step, we identified a number of well-known yet distinct brands for two popular yet divergent product categories of interest to our student subject population: 1. Cell phones-a functional product consumers tend to evaluate along objective dimensions of performance (in addition of course to some aesthetic distinctions), and 2. Jeans-an expressive product for which consumers consider the psychological implications of selection (Okazaki 2006). We identified eight brands (four per product category) for initial evaluation.

Next, we generated a list of attributes for each brand and identified a number of existing avatars to match each brand attribute. For example, if students characterized a brand as sophisticated we tried to locate one or more sophisticated looking avatars. We obtained these avatars from a variety of online sources, including avatar developer sites, commercial websites and virtual social networking environments such as noDNA, Sitepal and Second Life.

The third phase of the study involved categorizing the collection of avatars according to Aaker's 15 attributes of brand personality, factored according to the "Big 5" dimensions of sincerity, excitement, competence, sophistication and ruggedness (Aaker 1997). Through group consensus (judges included both authors and four research assistants), we identified two avatars to embody the personality attributes we desired for each of the five dimensions (i.e., 10 avatars per brand).

In the fourth step, we validated our judgments in a pretest on a sample of 40 respondents who assigned personality ratings to each of the eight brands and 20 avatars according to Aaker's (1997) "Big 5" list. Subsequently we reduced the sample brands from four to two; we selected the two most divergent brands in each product category for further examination. We based our selection on the dominant personality attribute within each product category–sophistication for cell phones and ruggedness for jeans. For jeans we selected the Wrangler and Seven For All Mankind brands and for cell phones we included the LG 400 and the LG Chocolate brands. We also reduced the number of avatars per brand to two with the avatar that exhibited a similar personality rating with the brand (jeans: ruggedness, cell phones: sophistication) and the avatar with a mismatched rating being retained.

In the final step we examine the robustness of the match-up hypothesis when applied to an online communications format. In a 2 x 2 design (Products: jeans and cell phone X Avatar: similar and mismatch) we paired these avatars separately with each brand in a series of online advertisements. Through random assignment, each respondent viewed two ads online–one cell phone/avatar pairing and one jeans/avatar pairing. Manipulation checks confirmed that respondents rated the LG Chocolate cell phone as more sophisticated than the LG 400 phone and Wrangler jeans as more rugged than Several for All Mankind jeans. In addition they rated the "sophisticated" avatar (as determined by our pre-test data) as more sophisticated and the "rugged" avatar as more rugged than the

alternates within each condition. Our dependent measures included attitude toward the brand and purchase intent for each brand/avatar pairing. Results indicate scattered support for the match-up hypothesis. However, we also note a tendency for the brands to "engulf the field" such that their *a priori* brand personalities tend to swamp the ratings. This pattern implies that the match-up hypothesis may be more robust for new brands that have yet to establish a firm brand personality. In addition, the static nature of these initial experimental stimuli may diminish the impact of the avatar spokesperson. In subsequent studies we hope to address these issues by using brand stimuli with more ambiguous offline personalities and more realistic, animated avatars. More generally, our findings are a reminder that–just as in the offline world–source characteristics are a potentially important influence on consumer behavior in online marketing environments.

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### "Relationships with a Byte? Attraction, Interaction and Intention for Avatar Use on a Retail Website"

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*"Keep up appearances; there lies the test;*
*the world will give thee credit for the rest"*
*(Charles Churchill, 1731- 64)*

Interactions with customers are important, but Internet shopping provides little opportunity for such exchanges. For Gefen and Straub (2004), this deficit can be overcome by perceptions of social presence. A cue for social presence in computing is interactivity, especially when this supports a social role. An interactive animated 'avatar' on computer screens could provide a source of social presence and hence trust building capabilities (Holzwarth, Janiszewski, and Neumann 2006; Wood, Solomon, and Englis 2005). The outcome of such interactions may invoke the established social rules and dynamics from other interactions and so influence future behaviour. This invocation of social rules and dynamics could prove the most challenging and a trap for the unwary.

One social dynamic introduced is the influence of physical appearance and accompanying social attributions. The avatar is highly visual and so the 'physical' attributes such as attractiveness should be a subject of interest.

The stranger-attribution literature supports robust effects of attractiveness on the attributions or judgments people make of others at first impressions (Eagly et al 1991). Pervasive and strong though the effect of physical (un)attractiveness may be, there is evidence that first impressions based on appearance can and do change. Perceptions of competence and expertise can weaken or even reverse physical attractiveness effects, e.g., when a communicator is described as an expert (Till and Busler 2000).

Nevertheless, attractiveness effects can show remarkable persistence. Whilst Langlois et al (2000) advise that the mediating influence of familiarity on attractiveness effects is important, their results demonstrate that the advantages of attractiveness can persist even after initial interactions. Attractive adults are judged and treated more positively than unattractive adults, even by those who know them (Langlois et al 2000). Consistent with Eagly et al (1991) attractive adults were judged as having more social appeal and as more interpersonally competent than unattractive adults. Attractiveness affects attention, positive interaction, negative interaction and help-giving/cooperation (Langlois et al 2000).

Traditional theories view relationships as built on a number of contingencies and strategies including physical attractiveness but also characteristics of interactions. Attractiveness affects ongoing attention and positive interaction behaviours and there may be a halo effect of physical attractiveness on perceptions of friendliness and social competence. It is intuitive therefore that attractiveness is associated with the formation of relationships over time. The literature also suggests physically attractive people are more often chosen as friends (Langlois et al 2000).

In addition to attractiveness, the amount of similarity perceived increases interpersonal attraction and liking, facilitating communications and development of trust based relationships. However, relationships between perceptions of similarity and persuasiveness are thought to be heavily context dependent and thus difficult to predict.

As regards interaction with computers, perceptions of similarity of the 'social identity' of the computer by the human interactants are associated with higher ratings of attractiveness, trust and persuasion (Reeves and Nass 1996).

Recent research confirms that avatar presence may be associated with persuasiveness and building trust in e-tailing. It also confirms that the effects of appearance are moderated by performance, customer product involvement and motivation for interaction (Holzwarth et al 2006; Keeling, McGoldrick and Beatty, 2006; Luo et al 2006; Wood et al 2005). Some researchers warn that inappropriate avatar appearance and interaction presents a real danger of alienating customers (Keeling et al 2004; McBreen et al 2000). In advertising research, important considerations include the 'consistency' (Walker, Langmeyer and Langmeyer 1992; 'appropriateness' (Solomon, Ashmore and Longo 1992) and 'congruence' (Kamins 1990) between the copy and the visual component of the communication.

However, there is little information on the relationship between avatar attractiveness/appropriateness and interactions with other evaluations over a series of human-avatar interactions as might happen with repeated visits to a retail website. From the literature discussed above, there are five initial research questions for longitudinal human-avatar interactions, 1) can attractiveness effects be demonstrated in this medium; 2) are attractiveness effects strongest for ratings of friendliness and social competence as offline; 3) are these modified with the addition of other information gained during interactions; 4) can halo effects of attractiveness persist over time in this medium.

The fifth question is whether ratings of attractiveness will affect inclinations and intentions towards extended interactions and the development of some feeling of a 'relationship'. Relational schema theory suggests that people will attribute motivation, personality and emotion to the avatar as a result of interactions but human-avatar relationships are perhaps best designated as 'parasocial'. Parasocial relationships are formed when there is an illusion of face-to-face relationship and/or the viewer identifies with people or characters (Rubin and McHugh 1987). With strong echoes of 'real' relationship building, parasocial interaction is strongly related to likeability, perceived similarity, social and task attraction: the same cognitive constructs utilised in building actual social relationships are implicated in parasocial relationships (Rubin and McHugh 1987). Hoerner (1999) points out that some commercial web sites are already using representations of hosts, fictional or synthetic characters in order to draw customers into a parasocial relationship.

We argue, therefore, that the quality and depth of the relationship are reflected in the strength of the parasocial relationship. Further, since real salesperson-customer relationships have a strong basis in trust, there will be a potent connection between the strength of parasocial relationship and the level of trust. In the context of online retailing, where high trust may be needed to alleviate the elevated perceived risk felt by many customers, this twin dependence may have a strong positive relationship with purchasing intentions.

Over a series of studies, we examine the five research questions posed above. Initial exploratory research indicates that great care has to be taken in matching not only the physical characteristics of the avatar to perceptions of the brand, product or retailer but also to the goals and motivations of potential customers of a website. These findings informed a longitudinal study involving a panel of experienced online shoppers who undertook weekly interaction with an existing avatar. Amongst other tasks, respondents completed questionnaires regarding perceptions of avatar attractiveness, similarity, communication skills, intrusiveness, relationship quality and future use.

The results indicate that parasocial relationships can develop but the potentially ambiguous effect of attractiveness per se is

illustrated; a persistent advantage of attractiveness for ratings of sociability, similarity and relationship quality over time is not reflected in the influence of attractiveness on trust or usage intentions. However, some indirect effects can be observed. Further, the results indicate associations between higher attractiveness and lower ratings of two negative assessments, intrusiveness and offensiveness, and that negative evaluations of behavior are influential on decisions to discontinue use. Consequently, attractiveness may offset some of the negative aspects of avatar use. However, there is a weaker than expected relationship between ratings of attractiveness and ratings of social interaction competence.

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## "Using Virtual Models to Evaluate Real Products for Real Bodies"

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The traditional view of consumer information processing is that cognitive activity takes place in the head, i.e., the mind stores knowledge, processes and integrates new information, and evaluates options in order to make optimal choices. An alternative view that is gaining acceptance in cognitive science argues that cognition involves both the brain *and* body, working together as an integrated system to support decision making and action (Clark 1997; Damasio 1994; Edelman 1992; Johnson 1987; Thelen and Smith 1994). Thus, how the human body can interact with an object or take action is fundamental to understanding the meaning of the object or situation (Glenberg 1997; Glenberg et al. 2003).

The opportunity to physically interact with products may similarly affect consumer understanding and evaluation of these products, especially body-involving products such as apparel or sports equipment (Rosa and Malter 2003; Rosa, Garbarino, and Malter 2006). Consumers perceive greater risk in purchasing such products in body-absent environments such as telephone shopping (Cox and Rich 1964), mail-order catalogs (Spence, Engel, and Blackwell 1970), and Internet retailing (Alba et al., 1997), though individuals differ in their degree of perceived risk. For example, consumers higher in need for tactile input for product evaluation make fewer Internet purchases of clothing and flowers (Citrin et al. 2003; Peck and Childers 2003) and prefer shopping for such products in environments that allow for tactile/sensory evaluation prior to choice (McCabe and Nowlis 2003).

One possible information technology solution to the lack of opportunity to directly touch products in computer-mediated environments (CMEs) is the development of "avatars", or cyberspace characters and personas. Avatars can be created by online marketers or co-created by online shoppers and used as proxies to interact with other consumers, to be spokes models for products and services, or even to represent the online shopper and virtually "try on" and "model" products such as apparel. Avatars can vary in function (decorative or proactive), action (animated or motionless), representation (photograph/illustration of real person or imaginary character), and classification (image of the real consumer using the web site, a realistic typical customer, or an idealized image of a model or celebrity) (Wood, Solomon, and Englis 2005). Increasing attention has focused on the emerging phenomenon of consumers visiting virtual worlds such as Second Life through their avatars, where they interact with other consumers and even spend real money to purchase virtual products and services for use by their

avatars. Though such avatars may appear to take on a life of their own, they are, of course, created and directed by real human users, interact with other avatars whose behavior is similarly directed by other human users, and purchase and "consume" familiar products and brands placed in the virtual world by real-world companies seeking to influence real-world behavior. Thus, the thoughts, choices and actions of avatars may more closely reflect the abilities and limitations of the bodies and minds of real humans in the physical world than is commonly recognized. The extent to which consumers perceive online avatars as realistic and authentic representations of the real world may influence the effectiveness of avatars as spokes models for real-world brands or as virtual models for apparel that will be purchased and worn by consumers in the real world.

Our research investigates the interaction between real-world (embodied) consumer cognition and the use of online avatars (virtual models) in CMEs to model and evaluate items for purchase and use by consumers in the real physical world. Specifically, we conducted a series of studies testing how consumers' self-perceptions affect their creation, perception and use of virtual models of themselves (Ives and Piccoli 2002). In this case, an avatar is designed to represent the actual online shopper (Wood et al. 2005) and can be used to virtually "try on" clothing to aid in making online purchase decisions. It is an open empirical question whether consumers will perceive a virtual model to be similar to them, and whether their evaluation of a digital rendering of an item "tried on" the virtual model will translate into actual purchase of the physical item and satisfaction in the real world.

Study 1 tests the key assumption that consumers will input accurate personal information and not embellish their dimensions to build a more ideal or flattering (i.e., taller, thinner, more toned) but unrealistic virtual model. Each participant self-reported their height, weight, and other physical features, and completed an impression management scale, then later constructed a virtual self model. We subsequently measured the actual height and weight of each participant and photographed them for comparison to their virtual model. We found a general tendency to input accurate information and build a relatively isomorphic virtual model that many participants rated as looking very much like them. Consumers who preferred a more visual style of processing perceived the virtual model to look more like them and were more satisfied with the way their virtual model looked in the digital apparel (shirt, pants, shoes) "tried on" the model.

Study 2 tests the effect of using a personal virtual model versus evaluating pictures of the same items in an online catalog (without using a virtual model). We find that the experience of trying clothes on a virtual model made consumers more confident in their online evaluation of items, and shifted their preference for how they would like to see items displayed (on a model that looks like them, compared to an ideal image of a professional model). However, the enhanced isomorphism of the virtual model did not lead to a more positive evaluation of the items or increase purchase intent.

Study 3 tests the effect of actual physical body movement on perceived accuracy of the virtual model and online evaluation of digital products. This manipulation was intended to increase participants' awareness of their full body (head-to-toe) and body boundaries (as occurs in a fitting room at a brick-and-mortar store), compared to the disembodied state of sitting at a computer terminal moving only eyes and fingertips. As expected, physical body movement by online shoppers had the strongest effect on the evaluation of shoes (cf. shirts or pants), apparently increasing participants' awareness of more distant extremities compared to a static seated body position.

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# Erroneous Lay Theories of Future Affect: Processes and Consequences

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## SESSION OVERVIEW

Consumers' poor predictions of their future feelings pose a fundamental and important problem for consumer well being and satisfaction. Because consumers often make their decisions and choices based on their anticipation of how they will feel about future outcomes (Mellers & McGraw 2001; Wilson & Gilbert 2003; Novemsky & Ratner 2003), not only does this tendency lead to suboptimal decisions, the "gap" between predicted and experienced affect may engender dissatisfaction with product choices and consumption decisions. The research presented in this session will offer a unique look at people's lay theories regarding future affect, and process mechanisms that lead to erroneous predictions. For example, the papers in this session investigate questions such as the following: How accurate are people's affective forecasts about the impact of alternative products on actual enjoyment derived during consumption and under what circumstances will they be more accurate? Are people's lay theories helpful regarding how to manage their future enjoyment by shifting their standards? More generally, the three papers together present a comprehensive look at the nature of the processes that may drive the affective gap, and in doing so, offer meaningful insights into how the suboptimal tendencies may be corrected.

The first paper (Morewedge, Gilbert, Myerseth & Wilson) shows that affective forecasters tend overlook the extent to which they will attend to the consumption of experiences, rendering the alternatives to that experience irrelevant to their satisfaction with it. Five experiments demonstrate that the subsequent affective "gap" occurs due to shifting standard of comparison, whereby people's forecasts of product value is mistakenly based on the relative magnitude of difference between an experience and its possible alternatives, rather than on the absolute value of the alternative itself. The results suggest that forecasters evaluate experiences in comparison to the perceived desirability of alternatives, and underestimate the extent to which hedonic experiences of the focal alternative "consume" attention, rendering alternatives irrelevant.

The second paper (Cho & Johar) questions people's lay belief that future affect can be managed by lowering one's goal standards. Using financial products, the results show that the strategy of lowering goal standards backfires because one's forecast of what it would take to make an outcome satisfactory differs from what is in fact used as the benchmark upon receiving the outcome of the chosen set of financial products. Subsequently this shifting standard of comparison casts a negative influence on people's judgment of how satisfied they are with the outcome, holding objective outcome constant.

The third paper (Nelson, Meyvis & Galak) demonstrates that people are unable to predict their adaptation to positive experiences, and that they incorrectly believe that disruptions of positive experiences will be aversive, when in fact, it increases their overall enjoyment. Using television viewing as the hedonic context, authors show that consumers are not only incorrectly forecasting the magnitude of their affective responses, but incorrectly forecasting the valence of their affective responses. The robustness of disruption-induced increase in enjoyment is explored in three studies.

Taken together, the three papers examine lay beliefs of future affect and the consequence of these beliefs in diverse consumption domains of financial decision making, food consumption and TV program viewing. The session will provide an integrative look at the processes by which the inaccurate beliefs regarding future affective responses imparts a negative influence on people's evaluation of their experiences and decision outcomes. What emerges is a dynamic view of how affective forecasting operates, and with it, ways in which consumers may be better informed towards optimizing their satisfaction and well-being. The session as a whole should be of interest to a diverse set of ACR audiences: those interested in anticipated emotions, lay theories, inter-temporal choice, and comparison processes. Furthermore, Rebecca Ratner, the discussant of this session is a leading expert in the area of hedonic forecasting in consumer research, and will provide a cohesive perspective to tie together the three presentations.

### References

Mellers, Barbara A. and Peter McGraw (2001), "Anticipated Emotions as Guides to Choices," *Current Directions in Psychological Science,* 10, 210-214.

Novemsky, Nathan and Rebecca K. Ratner (2003), "The Time Course and Impact of Consumers' Erroneous Beliefs about Hedonic Contrast Effects," *Journal of Consumer Research,* 29 (March), 507-16.

Wilson, Timothy D. and Dan Gilbert T. (2003), "Affective Forecating," in *Advances in Experimental Social Psychology*, New York: Elsevier

## EXTENDED ABSTRACTS

### "Consuming Experiences Shift Standards through Attentional Collapse"

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Judgments are by nature comparative. When people judge the loudness of a tone, the heaviness of a solid, or the brightness of a light, they compare their experience of the stimulus with a standard (Helson, 1964). That standard may be a prior experience ("This mug is heavier than the one I just lifted"), a concurrent experience ("This star isn't as bright as that one"), or even a future experience ("This passage is softer than the one we're about to hear"). In many cases, the standard influences people's judgments of the stimulus by creating a contrast effect, which is why a dog looks larger when standing next to a mouse than it does when standing next to an elephant (Mussweiler, 2003). Although objective measurement can solve the problem of shifting standards for judgments of brightness, loudness, and heaviness, it cannot do the same for judgments of value. Luminosity, volume, and weight are stable properties of a stimulus that only appear to vary across time, context, and persons, but value is an unstable property that actually does vary on these dimensions. Two people may value a vacation differently, the same person may value a vacation more than she did last week, and there is no principled reason why a person should value the vacation as much as another person, or as much as she once did.

Why are shifting standards a problem for judgments of value? There is a principled reason why one should value a vacation as much when one imagines it as when one experiences it. If one values