Tantalizing Effects of Sampling: the Influence of Sampling on Motivational States

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People are often encouraged to sample food and beverages by office coworkers, friends, delis, and food retailers. In this research, we show that sampling a drink (e.g., a flavored drink) high in incentive value (i.e., tasting good) can not only increase subsequent consumption of the consumed beverage, but also activate a more general motivational state as a result of which individuals seek anything rewarding (e.g., cookies or even a spa). Moreover, we demonstrate that the effect of sampling on subsequent consumption-related behaviors is moderated by the state of deprivation. Specifically, we find that the general motivational effects occur when participants are relatively less deprived; when participants are deprived, the subsequent consumption-related behaviors tend to become more restricted and less general.

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In Experiment 1, we manipulated emotional versus cognitive processing by manipulating the stimuli that respondents saw. Participants were randomly assigned to one of three conditions: the pairs of products were presented either in terms of their names (low affect condition), their pictures (high affect condition), or both their names and pictures. The results revealed that participants in the high affect condition committed significantly fewer transitivity violations than those in the low affect condition. Interestingly, when the product pairs were displayed in terms of both their names and pictures, the average number of violations was similar to that in the low affect condition, but greater than that in the high affect condition, suggesting that the availability of product names was sufficient to activate the cognitive system and deteriorate choice consistency.

We turned our attention from the mode of stimuli representation to the state of the decision maker in Experiment 2: half the participants in the experiment were asked to memorize a three-digit code during the choice task (low-load condition) and the other half a ten-digit code (high-load condition). The results revealed that the high-load participants (whose attentional capacities were constrained by the code memorization and who presumably had to rely more on their gut reactions and emotional responses during choice) were significantly more transitive than the low-load participants, suggesting a close association between preference consistency and the emotional system.

We next attempted to generalize our findings to explore whether decisions based on hedonic evaluations are more transitive compared to decisions with non-hedonic aspects. In Experiment 3, we manipulated the goal of the choice task: Participants were asked to choose the product they preferred (hedonic) within each pair, the product they thought was more expensive (non-hedonic), or the product they considered more popular (non-hedonic). We found that participants who had to choose their preferred product made fewer transitivity errors than those who chose the more expensive or the more popular product, indicating that evaluations that focus on hedonic aspects and that more heavily involve the emotional system are more consistent than evaluations that focus on non-hedonic aspects.

In sum, these experimental results converged to the same general conclusion: the emotional system, and not the cognitive system, is associated with a higher degree of consistency and transitivity. These results suggest that at least one aspect of Homo Economicus—transitivity—might reside in the emotional system.

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"Let the stoics say what they please, we do not eat for the good of living, but because the meat is savory and the appetite is keen"
Ralph Waldo Emerson

Consider a situation involving sampling of a food or a beverage item—an experience that most people are likely to be familiar with. Marketers frequently employ such sampling as a mean to stimulate consumer’s interests. Despite the growing popularity of such sampling, it poses a dilemma for marketers. On the one hand, food and beverage sampling is considered an integral part of promotion mix. On the other hand, common intuition would suggest that such sampling could also make consumers less hungry or thirsty and, therefore, reduce their subsequent consumption-related behaviors. The results of a short survey that we conducted with twenty-one marketing experts are in concordance with the common intuition.

The above conclusions arising from common intuition and the opinions of marketing experts, however, go against an emerging body of work on consumption cues and drive states. Emerging theories in this domain suggest that a consumption cue high in incentive value can strengthen drive states and, thereby, stimulate reward-seeking behaviors (e.g., Berridge 2001, Toates 1986), a notion we refer to as “reverse alliesthesia.” In other words, reverse alliesthesia suggests that sampling a tasty bit of food or beverage is actually likely to intensify rather than satiate hunger or thirst and, therefore, increase subsequent consumption-related behaviors.

Building on research on consumption cues and drive states, our first goal in this research was to demonstrate that sampling a consumption cue high in incentive value prompts the activation of a general motivational state, thereby, leading individuals to engage in reward-seeking behaviors. We achieved this goal by randomly assigning half of the respondents to a beverage-sampling task. Thereafter, we asked respondents to proceed to a second room, where we had different food items and the sampled drink served for them. We then measured the subsequent consumption behaviors related to food and drink. We also recorded the time taken to the cover the distance from the first to the second room. Prior studies conducted in animal laboratories demonstrate that rats when primed with a food pellet work harder for more food, than when they are not primed with the food pellet (Grant and Milgram 1973, Terry 1983).

Following the same argument, we had predicted that if sampling activates a motivational state then respondents should walk faster for their reward when they have sampled a drink high in incentive value than when they have not. Regarding the consumption behavior related to food and drink, we had predicted that if our results are consistent with reverse alliesthesia then sampling a drink high in incentive value should positively impact subsequent consumption-related behaviors.

Consistent with our predictions, sampling the drink high in incentive value led to an increase in consumption of not only the sampled drink but also the food items. Furthermore, respondents who had sampled the drink walked faster to the room with food and drink served than those who had not sampled the drink. Study-1, therefore, demonstrates that high incentive-value consumption cues activate a more general motivational state, prompting individuals to engage in reward-seeking behaviors in general.

The nascent evidence that exists in the literature supporting reverse alliesthesia, however, suggests that the effects of reverse alliesthesia operates at three different levels of specificity-specific to the consumption-cue, specific to a drive state and a more general-motivation level. Cue specific hypothesis suggests that eating a bit of food or beverage item is likely to increase the subsequent consumption of the sampled food or beverage item only (Cornell et al 1989). Drive-specific hypothesis suggests that sampling a bit of beverage (say, Hawaiian Punch) should lead to an increase in subsequent consumption of not only the sampled item (Hawaiian Punch) but any drink (Pepsi), but not food and vice versa (Toates 1986). Finally, Kambouropoulos and Staiger (2001) provide evidence in support of a general motivational hypothesis. In their study, they show that presenting individuals with a Beer-can not only led to an increase in urge to drink but activated a general motivational state making individuals more engaged in reward-seeking behaviors related to money in a subsequent task. Thus, the level of specificity at which reverse-alliesthesia effects operate is unclear.
Results from study-1 support a general motivational hypothesis; however, these results do not explain the ambiguity related to the level of specificity at which the reverse alliesthesia operates. Our second goal, therefore, was to examine the factors that could moderate the level of specificity at which reverse-alliesthesia effects operate. Extant research on the neurobiology of motivation suggests that in a deprivation state (e.g., when one is thirsty), behaviors should be directed at specific goal stimulus (say, for e.g., a glass of water); on the other hand, non-deprivation state should result in behaviors that are more exploratory in nature. Building on this stream of research we predicted that when individuals are thirsty, sampling a consumption cue (e.g., Hawaiian Punch) high in incentive value should lead to more drive specific effects, that is, it is likely to increase the subsequent consumption of only drive-relevant stimulus (e.g., only drink). However, when one is not in the deprivation state, sampling a consumption cue high in incentive value should lead to more general effects. In other words, when one is not thirsty, sampling a beverage (e.g., Hawaiian Punch) high in incentive value is likely to lead to an increase in subsequent consumption of not only another drink but also food. In study-2, therefore, we manipulated the state of deprivation and examined its impact on subsequent consumption-related behaviors. In accordance with our predictions, we demonstrate that level of specificity at which reverse-alliesthesia effects operates is moderated by the state of deprivation. To elaborate, when respondents were thirsty, sampling a drink high in incentive value led to an increase only in the subsequent consumption of another drink; however, when respondents were not thirsty, sampling a drink high in incentive value led to an increase in subsequent consumption of not only drink but also food.

In sum, our findings suggest that sampling a consumption cue high in incentive value can activate a general motivational state leading individuals to seek anything rewarding, and these effects are modulated by the state of deprivation. Our findings have important implications for the marketers. These results suggest that sampling a food or beverage items in a grocery store is not only likely to increase the purchase of the sampled food or beverage items but rewarding items in general.

References


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SESSION OVERVIEW

In the past twenty years, the landscape of consumer imagery has changed substantially. Not only have the number, size, and venues of pictures continued to expand, but the balance and relationship between images and verbal material has shifted measurably (Phillips and McQuarrie 2004). Even the visual representation of typeface and the space surrounding the images have come to carry meaning—and images are now widely used to represent quantities and statistics (Henderson et. al. 2002; Pracejus et. al. 2006; Tufte 1990). In turn, new technologies from digital cameras to Photoshop have put sophisticated image-creation tools into the hands of ordinary people. Indeed, technology has so profoundly affected the everyday material culture that the objects being pictured are themselves often new and strange. Further, as the planetary economy draws cultures with disparate sign systems into closer contact, differences in cognitive approaches to pictures versus language are being studied (Tavassoli 1999). The ubiquity, accessibility, and manipulability of imagery may have even created the world’s first democratic pictography (Scott 1993, Scott and Vargas 2007). In sum, the face of popular imagery has changed so much in recent years that new research frameworks are needed to make consumer response intelligible.

This session brings together leading researchers in consumer response to imagery to begin addressing this gap. Our intention is to point to observable phenomena in commercial imagery not currently addressed by research and to propose theoretical extensions for updating scholarly approaches. We believe this session will command attention because of the prominence of imagery in both public and academic discussions of media and the global economy. We also believe the session will have core appeal to a large subgroup of CB scholars who study visuals under a variety of methods and rubrics (see Scott and Batra 2003; Scott and Vargas 2007).

We will use rhetorical theory as the framework for this session. Language theorists have already heralded the 21st century a rhetorical age, a trend brought about by the spread of consumer culture and mass media, the decline of print communication, and the rise of multiculturalism (Bender and Wellberry 1990; Wess et. al. 1996). A robust stream of work has also emerged in consumer behavior since Scott’s (1994a) proposal that rhetoric would provide a workable theory for the study of advertising images (McQuarrie and Mick 1992, 1996, 1999; Phillips 1997; Phillips and McQuarrie 2002, 2004). However, this work has focused so strongly on tropes that the field’s perception of the rhetorical approach is in danger of being reduced to a “theory of figures,” much as rhetoric was during the 19th century (Bender and Wellberry 1990). Therefore, this session will show how other basic theoretical building blocks—identification, argument, and genre—can be used to build a broad theory of rhetorical imagery beyond the study of pictorial metaphor.

The three aspects of rhetoric were chosen as a focus because of their foundational importance to theory-building. Argumentation has been understood as the skeletal structure of persuasion since ancient Greece. Any true theory of pictorial rhetoric would need to show how pictures can make statements, list evidence, offer reasons, and argue a proposition. Identification was the primary building block in the philosophy propounded by the 20th century’s leading rhetorical theorist, Kenneth Burke (Burke 1969; Weiss et. al. 1996). Genre analysis—sketching the outlines and rules of identifiable types within a corpus of texts—is the essential first step in making sense of any large body of symbolic forms. Thus, we believe this session will help the researchers in attendance to develop fruitful studies of their own. We hope also to stimulate them to look further into rhetorical theory as a basis for grasping trends in picturing.

A quick look at the references provided here will underscore the participants’ expertise in consumer imagery. We also wish to remark that our discussant, David Mick, is not only distinguished in the area of visual research, but in both sign theory and consumer relationships to technology as well. Therefore, we anticipate a high quality synthesis for this session.

EXTENDED ABSTRACTS

“Imagining Identity: Technology and the Body in Marketing Communications”
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Peter Dobers, Mälardalen University

A key strategy of contemporary marketing is to create a compelling image for products and services by associating brand names to some aspect of personal or group identity. The human body forms a basic building block of this strategy—the body functions as a radiating landmark for innumerable product, social, and emotional attributes ascribed to a vast array of products, services, and ideas in ads, websites, annual reports, and promotional brochures (Schroeder, 2002; Schroeder and McDonagh, 2005). Sophisticated, high-tech products often incorporate the ancient, basic human form within their marketing strategy, attempting to make physical and tangible complex, ethereal, and often invisible goods and services.

This paper takes a pervasive visual theme—the human body and its representation—and investigates its identity building functions within the high-tech category. In a survey of recent IT marketing efforts, information technology products and services were represented in increasingly social ways, infusing their materiality with anthropomorphous and cyborg qualities of human body and soul. We develop a typology of the body in IT ads, drawing on semiotic analysis and interviews with technology and media students, and discuss how images of the body have come to signify technological innovation. We present an interdisciplinary analysis of how the body communicates about IT to illuminate central strategic issues in marketing and representing technological innovations.

We find that within contemporary marketing communications, boundaries between the body and technology have become blurred. Consumers are encouraged to see people and bodies as if they were dispersed and fluid systems of flesh and digits. These cyborg images provide provocative themes for advertisers (e.g., Venkatesh, Karababa and Ger, 2002); this paper joins recent research efforts to theorize the cyborg within consumer culture (Campbell, O’Driscoll and Saren, 2006; Geisler and Venkatesh, 2002). Recent ads collected from magazines such as the Economist, Wired, and Time provide compelling evidence. In print, technology seems to be entering the body, exemplifying the extending capacity of IT—shifting time and space to allow humans to communicate in...
spectacular ways by expanding our cognitive, physical, perceptual, and intellectual abilities. For example, Ericsson has a series of ads that feature nearly nude bodies, painted blue, that reveal a network of circuits, cables, and computer chips integrated into the body’s skin (see figure 1). One ad portrays a bald headed woman, crouching with her palms resting on the floor, knees splayed out, staring blankly into the camera. Her pose is amphibious—she/it resembles a big blue frog, with the curious addition of computer circuits morphed onto her skin. (Consumer responses to this image vary—some find resonance with the body and the cellphone, whereas others find the image perplexing, revealing the variability of consumer response to rather abstract visual rhetoric.) Radio, internet, and television ads also give technology human-like features and attributes, thus making the nonhuman anthropomorphous. For instance, Swedish tele provider Telia ran spots that showed human “digits”—people labeled with 0s and 1s—discussing the human effects of information technology.

We argue that such ads open up a window of how identity is represented in the electronic economy. Our analytic approach draws on the cultural code of the body as conceptualized from four theoretical domains: (1) life and growth as a controlling paradigm for economics, in which growth, development, nurturance, and life cycles are routinely invoked to discuss economic activity; (2) metaphorical thought, as articulated by George Lakoff and Mark Johnson, about the great chain of being (cf. Wilk, 2004). This overarching metaphor places humans—and their bodies—at the top of a ‘great chain’ of life, with animals below; (3) Michel Foucault’s work on how social, economic, and political institutions interact with and influence the body; and (4) the body as an important genre in visual representation, for example the figure in painting and the body in photography (e.g., Shilling, 2005). Further, we discuss the broader significance of the body in marketing imagery, particularly when it is recruited to signify technological progress and information technology products. The paper ends with some speculations on the changing nature of representation in information technology ads (cf. Phillips and McQuarrie, 2002), and offers some conclusions about the body as a basic element of marketing communication.

“Reason and Realism: Image as Argument”
Linda M. Scott, Oxford University
Patrick Vargas, University of Illinois

Past CB research on advertising visuals has often presumed either that images do not carry brand attribute information or that images of products are used only “realistically” to warrant quality and credibility (Scott 1994a; Scott and Vargas 2007). For images to present arguments on behalf of products, they must be capable of carrying information about product features; however, a key issue emergent from new image technologies is the status of pictures as representations of the real. Not only is there a persistent concern about the alteration of images through various forms of digital retouching, the increasingly stylized visual environment raises questions about the place of the “realistic” in the context of such meaningful variety.

This presentation will begin to explore the new visual environment for brand information and product representation in an effort to conceptualize the image as a form of argument. We will begin by briefly recapping the results of our study (forthcoming JCR 2007) showing that pictures are now capable of representing as specific a list of brand attributes as are words—and that consumers accurately infer the features thus listed.

We will then show new research that explores the range and validity of pictorial “realism” in the representation of objects. This research, like our previous study, makes use of both experiments and interviews to investigate consumer response to object images. Several tasks are employed to investigate how sensitive the perception of “realism” is to context and order effects, to ask what the basis for a judgment of realism is, and to illuminate the ways that the “realistic” and the stylized are attributed meaning in a commercial context. Results in hand already suggest that the notion of “realism” in picturing is undergoing significant revision, becoming quite fluid and subject to shifting interpretations in use.

Our contention will be that evidence points to a response model in which pictures in consumer culture are making “rational” arguments, used to list attributes and to display evidence, but that previous assumptions about the centrality of realism need to be reexamined in light of emergent technologies.