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The Unhealthy = Tasty Intuition and Its Effects on Taste Inferences, Enjoyment, and Choice of Food Products

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The Unhealthy = Tasty intuition and its effects on taste inferences, enjoyment, and choice of food products Rajagopal Raghunathan, The University of Texas at Austin Rebecca E. Walker, The University of Texas at Austin Wayne D. Hoyer, The University of Texas at Austin We find, across three experiments, that when information pertaining to assessing the healthiness of food items is provided, the less healthy the item is portrayed to be: (1) the better its inferred taste, (2) the more it is enjoyed during actual consumption, and (3) the greater the preference for it in choice tasks when a hedonic goal is more salient. These effects are obtained both among consumers who report believing that healthiness and tastiness are negatively correlated and, albeit to a lesser degree, among those who do not report such belief. This suggests that the influence of the assumed negative correlation between healthiness and tastiness can operate outside the consumer's awareness and, hence, may be difficult to control.

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EXTENDED ABSTRACT

In December of 2001, the American Surgeon General announced that approximately 300,000 deaths were associated that year with a preventable health problem: obesity (Parloff 2003). The same year, the Center for Disease Control and Prevention (CDC) classified 39.2 million Americans (or roughly 30% of the population) as obese, a 74% jump from 1991 (Vence 2004). This trend is of grave concern not only because a variety of ailments including hypertension, heart problems, diabetes, liver malfunction, arthritis, and respiratory problems are directly linked to obesity (Allison et al. 1999; Parloff 2003; Spake 2004), but also because of the economic cost of treating ailments associated with obesity, which was estimated at \$117 billion in 2000 (American Obesity Association 2002).

To many consumers and consumer activists, fast food restaurants and organizations interested in promoting “unhealthy” eating habits (e.g., lobbyists for grocery manufacturers) are to blame for the obesity epidemic (e.g., Brownell and Horgen 2003). However, in this research, we examine whether a more subtle (and as yet unrecognized) factor may also contribute to the over consumption of food perceived as being unhealthy. What if people consume food that is considered unhealthy not despite of its perceived unhealthiness but *because* of it? That is, what if part of the attractiveness of food lay in its perceived unhealthiness? This can happen if consumers intuitively believe that unhealthy food is inherently tastier. The operation of such a belief would increase the chances that people will over consume food portrayed as less (vs. more) healthy since such food will be expected to taste better. Consistent with this idea, we propose that the perceived unhealthiness of food has the ironic effect of enhancing its attractiveness.

In this paper, we derive predictions of how the intuition affects three variables of theoretical and substantive interest: (1) taste inferences of food products when information pertaining to their healthiness is provided, (2) differences in enjoyment of the same food product when it is presented as being more versus less healthy, and (3) choice between a more versus less healthy entrée from a restaurant as a function of differences in the propensity to pursue a hedonic goal.

Based on the idea that people assume an inverse relationship between tastiness and healthiness—an assumption that we term the Unhealthy=Tasty intuition—we hypothesize that when information pertaining to assessing the healthiness of food items is provided, foods perceived to be less healthy will be: (1) inferred to taste better, (2) enjoyed more during actual consumption, and (3) preferred in a choice task when a hedonic goal is more (vs. less) salient. Results from three controlled experiments confirmed our expectations. Participants in Experiment 1 inferred that the less healthy an item, the better its taste. Participants in Experiment 2 derived greater actual enjoyment from consuming food that was portrayed as less healthy. Finally, participants in Experiment 3 chose an entrée portrayed as more unhealthy when they were prone to seeking hedonic (enjoyment) goals due to greater hunger. Interestingly, these results were obtained both among those who agreed and those who disagreed that healthiness is inversely related to tastiness.

Our research also speaks to the important issue of why consumers continue to believe in the Unhealthy=Tasty intuition despite

a lack of rigorous evidence for its validity (reflected in the general difficulty in determining if a specific ingredient is healthy or unhealthy). A conjunction of two mechanisms appears to underlie this phenomenon. The first is the generation of the hypothesis that unhealthy food is tastier. We posit both internal and external sources for the generation of the hypothesis. The fact that the Unhealthy=Tasty relationship is a specific manifestation of a more general principle—of an assumed inverse relationship between the wholesomeness and hedonic potential of stimuli—is a potential internal source for the hypothesis. Externally, an inverse relationship between healthiness and tastiness is at least implicitly, if not explicitly propagated across a variety of media sources. Once the hypothesis that healthy food is less tasty is generated, the second mechanism of the hypothesis confirmation bias (Hoch and Ha 1986) helps sustain belief in the intuition. Results from Experiment 2, in particular, demonstrate how, once the hypothesis that healthier food is tastier is generated, it tends to be confirmed—even when there is a lack of objective evidence for it.

This research makes two other significant theoretical contributions. First, it attests to the robustness and generality of the influence of the Unhealthy=Tasty intuition on judgments and decisions concerning food. It is well known that consumers' decisions are influenced by their lay theories and intuitions (e.g., Mukhopadhyay and Johar 2005), even when the lay theories are invalid (e.g., Broniarczyk and Alba 1994). What is noteworthy in the present research is that our predictions were confirmed across three different types of food products, three types of judgment tasks, and two conceptually different types of unhealthiness manipulations. The generality of our findings across these experimental differences hints at the prevalence and strength with which people believe in the Unhealthy=Tasty intuition, suggesting that overcoming the influence of the intuition may be difficult.

The final theoretical contribution, which also points to the robustness of the influence of the Unhealthy=Tasty intuition, stems from our finding that the intuition can influence the judgments and decisions of even those who explicitly disagree with the idea that unhealthy food is tastier. This finding indicates that the influence of the intuition may lie outside of the awareness of consumers making judgments about what to consume. At a conceptual level, this finding shares similarities with the work on implicit learning by Lewicki and his colleagues (e.g., Lewicki, Hill, and Czyzewska 1997). At a more substantive level, this finding raises the disturbing possibility that consumers may be unaware of *why* they seek and over-consume food that is perceived or portrayed as unhealthy. Without such awareness, controlling one's consumption patterns becomes much more difficult.

REFERENCES

- Allen, Chris T. and Cris A. Janiszewski (1989), “Assessing the Role of Contingency Awareness in Attitudinal Conditioning with Implications for Advertising Research,” *Journal of Marketing Research*, 26 (February), 30-43.
- Allison, David B., Kevin R. Fontaine, JoAnn E. Manson, June Stevens, and Theodore B. VanItallie (1999), “Annual Deaths Attributable to Obesity in the United States,” *Journal of the American Medical Association*, 282 (16) 1530-38.

- American Obesity Association (2002), "Surgeon General Ready to Confront Obesity Epidemic," (accessed January 19, 2005), [available at http://www.obesity.org/subs/News/Vol3_No3_cover.shtml].
- Balasubramanian, Siva K. and Catherine Cole (2002), "Consumers' Search and Use of Nutrition Information: The Challenge and Promise of the Nutrition Labeling and Education Act," *Journal of Marketing*, 66 (July), 112-27.
- Berry, Christopher J. (1994), *The Idea of Luxury*, Cambridge, UK: Cambridge University Press.
- Bettman, James R., Mary Frances Luce, and John W. Payne (1998), "Constructive Consumer Choice Processes," *Journal of Consumer Research*, 25 (December), 187-217.
- Broniarczyk, Susan M. and Joseph W. Alba (1994), "The Role of Consumers' Intuitions in Inference Making," *Journal of Consumer Research*, 21 (December), 393-407.
- Brownell, Kelly D. and Katherine Battle Horgen (2003), *Food Fight: The Inside Story of the Food Industry, America's Obesity Crisis, and What We Can Do About It*, New York: McGraw-Hill.
- Calle, Eugenia E., Michael J. Thun, Jennifer M. Petrelli, Carmen Rodriguez, and Clark W. Heath, Jr. (1999), "Body-mass Index and Mortality in a Prospective Cohort of U.S. Adults," *New England Journal of Medicine*, 341 (15), 1097-1105.
- Deighton, John (1984), "The Interaction of Advertising and Evidence," *Journal of Consumer Research*, 11 (December), 763-70.
- Dhar, Ravi and Itamar Simonson (1999), "Making Complementary Choices in Consumption Episodes: Highlighting Versus Balancing," *Journal of Marketing Research*, 36 (February), 29-44.
- Gilbert, Daniel T., Michael J. Gill, and Timothy D. Wilson, (2002) "The Future is Now: Temporal Correction in Affective Forecasting," *Organizational Behavior and Human Decision Processes*, 88 (My), 430-43.
- Harvard School of Public Health Nutrition Source (2004a), "Healthy Weight," (accessed February 12, 2004), [available at http://www.hsph.harvard.edu/nutritionsource/healthy_weight.html].
- Harvard School of Public Health Nutrition Source (2004b), "Fats and Cholesterol—The Good, the Bad, and the Healthy Diet," (accessed February 12, 2004), [available at <http://www.hsph.harvard.edu/nutritionsource/fats/html>].
- Hawkins, Scott A. and Stephen J. Hoch (1992), "Low Involvement Learning: Memory without Evaluation," *Journal of Consumer Research*, 19 (September), 212-25.
- Hoch, Stephen J. and Young-won Ha (1986), "Consumer Learning: Advertising and the Ambiguity of Product Experience," *Journal of Consumer Research*, 13 (September), 221-33.
- Irwin, Julie R. and Gary H. McClelland (2001), "Misleading Heuristics and Moderated Multiple Regression Models," *Journal of Marketing Research*, 38 (February), 100-109.
- Keller, Kevin Lane, Brian Sternthal, and Alice Tybout (2002), "Three Questions You Need to Ask about Your Brand," *Harvard Business Review*, 80 (September), 80-85.
- Kivetz, Ran and Itamar Simonson (2002), "Earning the Right to Indulge: Effort as a Determinant of Customer Preferences Toward Frequency Program Rewards," *Journal of Marketing Research*, 39 (May), 155-70.
- Kozup, John C., Elizabeth H. Creyer, and Scot Burton (2003), "Making Healthful Food Choices: The Influence of Health Claims and Nutrition Information on Consumers' Evaluations of Packaged Food Products and Restaurant Menu Items," *Journal of Marketing*, 67 (April), 19-34.
- Lewicki, Pawel (1986), "Processing Information about Covariations That Cannot be Articulated," *Journal of Experimental Psychology: Learning Memory, and Cognition*, 12 (January), 135-146.
- Lewicki, Pawel, Thomas Hill, and Maria Czymewska (1997), "Hidden Covariation Detection: A Fundamental and Ubiquitous Phenomenon," *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 23 (January), 221-228.
- Maslow, Abraham (1962), *Toward a Psychology of Being*, Oxford, England: Van Nostrand.
- Morris, Michael W., Tanya Menon, and Daniel R. Ames (2001), "Culturally Conferred Conception of Agency: A Key to Social Perception of Persona, Groups, and Other Actors," *Journal of Personality and Social Psychology*, 5 (April), 169-182.
- Mukhopadhyay, Anirban, and Gita V. Johar (2005), "Where There is a Will, Is There a Way?: Effects of Lay-Theories of Self-Control on Setting and Keeping Resolutions," *Journal of Consumer Research*, forthcoming.
- Nestle, Marion (2003), *Food Politics: How the Food Industry Influences Nutrition and Health*, Berkeley, CA: University of California Press.
- Parloff, Roger (2003), "Is Fat the Next Tobacco?," *Fortune*, 147 (2), 50-54.
- Raghunathan, Rajagopal and Kim Corfman (2005), "Is Happiness Shared Doubled and Sadness Shared Halved?," Working Paper, The University of Texas at Austin.
- Ross, Lee and Richard E. Nisbett (1991), *The Person and the Situation: Perspectives of Social Psychology*, New York: McGraw Hill.
- Schlosser, Eric (2001), *Fast Food Nation: The Dark Side of the All-American Meal*, Boston, MA: Houghton Mifflin Company.
- Schwarz, Norbert and Herbert Bless (1992), "Constructing Reality and Its Alternatives: An Inclusion/Exclusion Model of Assimilation and Contrast Effects in Social Judgment," in *The Construction of Social Judgments*, ed. Leonard L. Martin and Abraham Tesser, Hillsdale, NJ: Erlbaum, 217-245.
- Shiv, Baba and Alexander Fedorikhin (1999), "Heart and Mind in Conflict: The Interplay of Affect and Cognition in Consumer Decision Making," *Journal of Consumer Research*, 26 (December), 278-292.
- Simon, Herbert A. (1967), "Motivational and Emotional Controls of Cognition," *Psychological Review*, 74(1), pp. 29-39.
- Spake, Amanda (2004), "Rethinking Weight," *US News and World Report*, February 9th.
- Sujan, Mita and Christine Dekleva (1987), "Product Categorization and Inference Making: Some Implications for Comparative Advertising," *Journal of Consumer Research*, 14 (December), 372-378.
- Tversky, Amos and Daniel Kahneman (1974), "Judgment under Uncertainty: Heuristics and Biases," *Science*, 185 (September), 1124-31.
- Vence, Deborah (2004), "The Lowdown on Trans Fats: New Research, Packaging Challenges Arise from FDA Ruling," *Marketing News*, 38 (5), 13-14.
- Wansink, Brian (2004), *Marketing Nutrition*, Champaign, IL: University of Illinois Press.
- Zajonc, Robert B. (1980), "Feeling and Thinking: Preferences Need No Inferences," *American Psychologist*, 35 (February), 151-75.