

## Research Article

## The Comparative Mind-Set

## From Animal Comparisons to Increased Purchase Intentions

Alison Jing Xu and Robert S. Wyer, Jr.

*Department of Marketing, Hong Kong University of Science and Technology*


---

**ABSTRACT**—*Stimulating people to state a preference for one of two commercial products can increase their willingness to purchase not only one of these products, but also other products in a totally unrelated domain. However, willingness to make a purchase in a given domain (e.g., computers) can also be increased by asking individuals (a) to indicate which of two stimuli in a different domain (e.g., vacation packages) they dislike more, (b) to compare the relative attractiveness of wild animals, (c) to compare the animals with respect to physical attributes, and (d) to estimate how similar one object is to another. Moreover, the effects generalize to decisions about dating partners, as well as consumer products. In short, making any type of comparative judgment appears likely to give rise to a comparative-judgment mind-set and, therefore, to influence decisions in subsequent situations.*

---

Imagine that while walking through a department store, a companion asks you which of two animals, a dog or a cat, you would prefer to have as a pet. Would this incidental experience increase your likelihood of deciding to buy one of the two best sellers that are on sale in the book department? Our research suggests that, all other things being equal, this effect could indeed occur. In fact, making almost any sort of comparative judgment a short time before contemplating a decision between two alternatives is likely to increase the likelihood of choosing one of them, rather than rejecting both.

The impetus for the research reported here was a series of studies we performed to investigate consumer decision making (Xu & Wyer, 2007). In one study, more participants reported a willingness to purchase a vacation package if they had previously reported a preference for one of two computers (68%) than if they had not (42%). In another study, participants were given five pairs of products or services (vacation packages,

mobile phones, restaurants, etc.) and asked in each case which alternative they preferred. These participants were significantly more likely to purchase candies that were on sale after the experiment (28%) than were participants who had not made preference judgments (6%). Thus, merely stating a preference for choice alternatives in one product domain not only can increase willingness to make a purchase in other hypothetical situations, but also can have an impact on actual purchase behavior.

Our initial conceptualization of these earlier findings was restricted to an analysis of purchasing behavior. We assumed that people who are confronted with a choice between alternative courses of action normally perform three steps. First, they must decide whether they want any of the options available (e.g., in a purchase situation, whether they want to buy anything at all). Second, if they decide affirmatively, they then decide which of the alternatives they prefer. Finally, they consider how to implement the decision they have made. However, if individuals are induced to perform the second step of the sequence without performing the first, they may implicitly assume that the first step has already been performed and may proceed to the final, implemental stage.<sup>1</sup> Thus, individuals who have been induced to state a preference for one of two products may be disposed to consider how to implement a purchase of the preferred option (e.g., whether to pay cash or use a credit card) without considering the option of not buying anything.

To explain the generalization of the effects across product domains, we (Xu & Wyer, 2007) postulated the existence of a “which-to-buy” mind-set that, once activated in the course of stating preferences for products in one domain, persists to influence decisions in other product domains as well. In exploring the nature of these processes, however, we realized that our original conceptualization was likely to be much too restricted. That is, the phenomena we identified may be a manifestation of a

---

Address correspondence to Alison Jing Xu, Department of Business Administration, College of Business, University of Illinois at Urbana-Champaign, 350 Wohlers Hall, 1206 South Six St., Champaign, IL 61820-6980, e-mail: jingxu1@illinois.edu.

---

<sup>1</sup>The three-step process is somewhat similar to that described by Gollwitzer, Heckhausen, and Steller (1990) in their conceptualization of deliberative and implemental mind-sets. Note, however, that a decision of which alternative to choose is part of their deliberative stage of processing and does not pertain to their implemental stage. See Xu and Wyer (2007) for a detailed discussion.

more general, *comparative* mind-set that, once activated, persists to influence behavior and decisions in other situations in which comparison processes come into play. Further, we hypothesized that this comparative mind-set might be activated by making different kinds of comparative judgments in nonproduct domains.

Two bodies of theory and research suggest this possibility. First, cognitive procedures, or sequences of goal-directed behavior, exist in memory as conceptual units and can be called upon for use as a guide in performing actions to which they are relevant (for alternative conceptualizations of the nature of goal-directed cognitive representations in memory, see Kruglanski et al., 2002; Schank & Abelson, 1977; Smith, 1990, 1994; Wyer, 2004). These procedures, like concepts more generally, can exist at several different levels of generality, perhaps being stored in memory hierarchically in an associative network (Wyer & Srull, 1989). Just as one's pet can be conceptualized as a collie, a dog, or an animal, deciding which pair of socks to buy exemplifies not only a procedure of comparing one pair of socks to another pair, but also a more general procedure of comparing one product to another and an even more general comparison process that is not specific to any particular type of object or feature.

Second, if comparative-judgment procedures exist in memory in an associative network, their activation and use can be conceptualized in terms of research and theory on construct accessibility (Förster & Liberman, 2007; Higgins, 1996; Wyer, 2008). According to a spreading-activation model of memory, for example (Collins & Loftus, 1975; Higgins, 1996; Wyer & Carlston, 1979), the use of a concept in performing one activity increases the accessibility in memory of other concepts with which that concept is associated, making these other concepts more likely to be identified and used in subsequent situations in which they are applicable.

Thus, the process of making a domain-specific comparative judgment could activate the more general comparative-judgment procedure that it exemplifies and, as a result, could increase the accessibility of more specific exemplars of the general comparative-judgment procedure. Consequently, if one of these exemplars is involved in a later decision situation, it may come to mind more quickly than other components of the decision-making sequence, leading it to take priority over those less accessible components. This conceptualization could account for our previous findings (Xu & Wyer, 2007). That is, stating preferences for products in one domain may increase the accessibility of the which-to-buy component of the three-stage decision process when it is applied to making decisions in a second domain, leading this stage of processing to be performed without considering the whether-to-buy step that normally precedes it.

This conceptualization has much more general implications than the formulation we proposed before (Xu & Wyer, 2007). For one thing, it could potentially apply to several other types of

decision phenomena. For example, it might lead someone to decide which of two individuals to invite on a date without considering the possibility of not going out with either, or to decide which of two movies to see without contemplating the attractiveness of staying home and reading a good book. In addition, this conceptualization suggests that almost any comparative-judgment task that people are likely to perform could have similar effects.

In the experiments reported in this article, we varied the nature of the comparison task that participants were asked to perform before a decision task. Experiment 1 showed that people are more likely to decide to purchase a product not only if they have previously reported which of two products they prefer in a different domain, but also if they have indicated which of the two products they dislike more. Experiment 2 demonstrated that similar effects on purchase decisions could be induced not only by asking participants to report the relative attractiveness of wild animals, but also by asking them to compare the animals with respect to physical attributes that had few evaluative implications. Experiment 3 demonstrated the effect of making comparative judgments about animals on decisions in a social domain, and Experiment 4 showed the influence of making such judgments on real purchase decisions. In our final experiment, asking participants to judge how similar one object was to another (which implicitly involved a comparison of the objects' features) induced a comparative mind-set that increased purchase intentions.

## EXPERIMENT 1

Participants in the first experiment received information about two vacation packages, A and B. In some cases, both vacations were described by predominantly favorable attributes, and in other cases, they were described by predominantly unfavorable ones. Some subjects indicated which vacation package they preferred. Others, however, indicated which vacation package they disliked more. Then, both these participants and control participants (who had not been exposed to the vacation packages) received information about two computers and indicated whether they would want to purchase A, to purchase B, or to defer making a choice.

These manipulations helped to distinguish our conceptualization from a plausible alternative. Shafir (1993) found that deciding which alternative one likes more could induce a bias to attend to positive features of the choice alternatives (which are normally the basis for liking). This bias could generalize to the subsequent choice situation, increasing attention to attractive features of the alternatives and, therefore, increasing the likelihood of purchasing one of them. Similar considerations, however, imply that determining which alternative one dislikes more would increase one's attention to unattractive features (which are the primary basis for disliking something), leading the alternatives considered later to be seen as less attractive and

decreasing one’s willingness to make a purchase. This is not the case, however, as our results show.

**Method**

One hundred twenty-six undergraduate students participated to fulfill a course requirement. They were randomly assigned to four experimental conditions and one control condition. The four experimental conditions were of a 2 (first judgment: preference vs. dislike) × 2 (favorableness of alternatives: favorable vs. unfavorable) between-subjects design.

Participants were told that the researcher was interested in studying how consumers make purchasing decisions on the basis of limited information about the products they are considering. In the experimental conditions, participants first read descriptions of two vacation packages, each described by six attributes. The two alternative vacation packages were either both favorable or both unfavorable (see Table 1). Each alternative in the favorable sets was described by four positive attributes and two negative attributes. Each alternative in the unfavorable sets was described by two positive attributes and four negative attributes. The two alternatives in each set were about equally attractive and shared no common attributes. After reading the descriptions of the two alternatives, participants were asked to judge either which alternative they preferred or which alternative they disliked more.

Next, participants in the experimental conditions proceeded to the second task. They were told to imagine that they were planning to buy a computer and had obtained information on two alternative models. Descriptions of two equally attractive computers were then presented; each computer had two positive attributes, two negative attributes, and two neutral attributes (see Table 1). After reading the descriptions, participants were asked to decide whether they would want to “choose computer A,” “choose computer B,” or “defer making a choice.” They indicated their decision by placing a check beside one of these alternative options. Finally, they evaluated each computer separately along a scale from -5 (*dislike very much*) to 5 (*like very much*).

In the control condition, participants completed only the second, computer-judgment task.

**Results**

*Purchase Likelihood*

Table 2 presents the proportion of participants in each condition who expressed a willingness to purchase one of the computers. Participants were more willing to purchase one of the computers when they had previously decided which of the two vacations they preferred (73%) than when they had not considered the vacations (50%). This result is consistent with our earlier findings. However, participants who had previously indicated which vacation package they disliked more were also more likely to

**TABLE 1**  
*Descriptions Used in Experiment 1*

Attribute set	Descriptions
Favorable vacation sets	
Vacation Package A	Good nightspots Beautiful scenery Pollution problem Expensive Good museums Nice shopping centers
Vacation Package B	Nice choice of food Good theaters Possible bad weather Crowded Attractive beaches Efficient transportation
Unfavorable vacation sets	
Vacation Package A	Bad nightspots Beautiful scenery Pollution problem Expensive Good museums Long travel time
Vacation Package B	Limited choice of food Good theaters Possible bad weather Crowded Attractive beaches Limited transportation
Computers	
Computer A	Insensitive mouse Delivery within 3 days High RAM capacity Good postpurchase repair service Keyboard with new design Little software included
Computer B	Stable operation Payment after delivery Low hard-disk capacity Energy consuming Sold in a reputable store Two-year warranty with no extra cost

purchase a computer than control participants were (77% vs. 50%). The difference between the likelihood of making a purchase in the four experimental conditions combined and

**TABLE 2**  
*Results From Experiment 1: Likelihood of Purchasing a Computer*

Vacation pair	Condition		
	Preference-judgment	Dislike-judgment	Control
Desirable	.82 ( <i>n</i> = 17)	.72 ( <i>n</i> = 18)	—
Undesirable	.64 ( <i>n</i> = 22)	.82 ( <i>n</i> = 27)	—
Average	.73 ( <i>n</i> = 39)	.77 ( <i>n</i> = 45)	.50 ( <i>n</i> = 42)

the likelihood of doing so in the control condition was significant, Wald  $\chi^2 = 7.60, p < .01, p_{rep} = .963$ . (Wald chi-squares reported in this article were analyzed by employing Catmod procedure in SAS.) Furthermore, this difference was evident regardless of the favorableness of the alternative vacation packages that participants had considered in the first task.

*Product Evaluations*

Participants’ overall evaluations of the choice alternatives provided evidence that the effects we observed were not influenced by selective attention to the type of attributes made salient by the initial judgment task. Participants evaluated both computers more favorably when the attributes of the vacation packages they had considered earlier were predominantly favorable ( $M = 1.41$ ) than when the attributes were predominantly unfavorable ( $M = 0.16$ ),  $F(1, 114) = 9.76, p < .005, p_{rep} = .977$ . Control participants’ evaluations of the computers fell between these extremes ( $M = 1.25$ ). Thus, the specific nature of the initial task did appear to induce selective attention to a subset of the attributes of the computers participants considered later. Nevertheless, participants’ likelihood of making a purchase decision did not depend on this difference in attention.

**EXPERIMENT 2**

If making choices in an initial task influences purchase decisions in a later situation because of the activation of a comparative-judgment mind-set, making any sort of comparative judgment—not only a judgment pertaining to products—might give rise to this mind-set. Furthermore, this should be true regardless of whether the comparisons are evaluative or descriptive. Experiment 2 confirmed this conjecture. Participants were asked to consider pairs of animals (e.g., elephants vs. hippos); some participants indicated which animal in each pair they preferred, and others compared the animals with respect to a specific attribute (heaviness, jumping ability, eyesight, etc.). Then, both these participants and participants who did not make judgments of animals performed the same computer-decision task we employed in Experiment 1. We speculated that the first two groups of participants would be more willing to purchase a computer than participants in the control condition would be.

**Method**

Eighty-six undergraduate students participated to fulfill a course requirement. They were randomly assigned to two experimental conditions (preference judgments vs. attribute judgments) and one control condition.

Participants were told they would be participating in several experiments that were not related. To introduce the first task, the experimenter told participants in the *preference-judgment* condition that people often have different preferences for animals and that we were interested in whether college students’ preferences were similar to those of the general population. Ten pairs

of animals (elephants vs. hippos, kangaroos vs. zebras, etc.) were presented, and participants were asked to indicate which animal in each pair they preferred. In the *attribute-judgment* condition, participants were told that we were interested in college students’ perceptions of animals, and they were instructed to compare the animals in each of the 10 pairs with respect to a particular attribute, which differed across pairs (e.g., “Which are heavier, elephants or hippos?” “Which can run faster, kangaroos or zebras?”). Both groups of participants, along with a control group who had not been exposed to the animal-judgment task, were then introduced to an ostensibly unrelated product-judgment task identical to that employed in Experiment 1.

**Results**

Participants were more likely to indicate a willingness to purchase one of the two computers if they had either reported their preferences for the animals in the first task (64%) or compared the animals with respect to physical attributes (68%) than if they were in the control condition (40%). Purchase likelihood was significantly lower in the control condition than in the two experimental conditions combined, Wald  $\chi^2 = 4.61, p < .04, p_{rep} = .905$ ; the two experimental conditions did not differ from one another ( $p > .10$ ). This difference occurred despite the fact that the overall evaluations of the computers did not differ across the three conditions (1.31, 1.01 and 1.16 in the preference-judgment, attribute-judgment, and control conditions, respectively).

**EXPERIMENT 3**

This experiment was identical to Experiment 2 except that a different target task was used. Rather than being asked to consider two computers as possible purchases, participants were asked to consider two alternative individuals as potential boyfriends or girlfriends.

**Method**

The stimulus materials consisted of two sets of six attributes (three favorable and three unfavorable) describing possible dating partners (see Table 3). Thirty students who did not participate in the main experiment reported that they were equally willing to date the two persons described by these attribute sets

**TABLE 3**  
*Descriptions Used in Experiment 3*

Person A	Person B
Humorous	Filial
Sloppy	Stubborn
Enterprising	Considerate
Tolerant	Intelligent
Impulsive	Pessimistic
Verbose	Hot-tempered

(5.73 vs. 5.63, on a scale from 0 to 10) and also to have them as a boyfriend or girlfriend (4.50 vs. 4.77).

In the main experiment, 66 participants were randomly assigned to the three conditions employed in Experiment 2. After participants in the two experimental groups made their judgments about animals, they and the participants in the control group completed an ostensibly unrelated survey about college students' attitudes toward choosing a mate. This survey presented the two sets of attributes describing two persons, and participants were asked whether they would be willing to choose person A as a boyfriend or girlfriend, to choose person B, or to choose neither.

## Results

The proportions of participants who chose one of the two persons varied across conditions as expected. Specifically, 75% of the participants in the preference-judgment condition chose one of the possible dating partners, and 70% of the participants in the attribute-judgment condition did so, whereas only 47% of the participants in the control condition chose one of the possible dating partners. This percentage was significantly lower in the control condition than in the two experimental conditions combined, Wald  $\chi^2 = 3.58, p < .058, p_{\text{rep}} = .867$ ; the experimental conditions did not differ from one another ( $p > .10$ ).

## EXPERIMENT 4

In a previous study (Xu & Wyer, 2007), we found that inducing participants to report preferences in an experimental task increased their willingness to actually purchase candies that were available after the experiment. To determine if comparing animals would have a similar impact, we exposed 119 individuals who had just participated in a different half-hour experiment to the three conditions employed in Experiment 2 (preference-judgment, attribute-judgment, and control). Then, after being told that the experiment was over, they were given an opportunity to purchase at half price (about \$1.30) one of four types of products that had ostensibly been left over from an earlier experiment (chocolate bars, potato chips, chewing gum, and pens).

Participants were more likely to make a purchase if they had either reported preferences for animals (51.3%) or compared animals' physical attributes (52.5%) than if they were in the control condition (37.5%). A planned comparison of the likelihood of making a purchase showed only a marginally significant difference between the first two conditions combined and the control condition,  $z = 1.49, p < .07$ , one-tailed. Nonetheless, the consistency of this difference with the data obtained in the other experiments is noteworthy.

## EXPERIMENT 5

In the preceding experiments, participants were explicitly asked to make comparative judgments. Performing a task that im-

plicitly requires such comparisons may have similar effects. For example, people often have occasion to estimate how similar one person or object is to another, and these judgments often involve a comparison of the features of the two persons or objects (Tversky, 1977). Therefore, making similarity judgments could produce a comparative-judgment mind-set effect of the sort we observed in earlier studies. Our fifth experiment confirmed this possibility.

## Method

Thirty-nine M.B.A. students participated as part of a classroom exercise. They were randomly assigned to a similarity-judgment condition and a control condition. In the similarity-judgment condition, participants were told that we were conducting research on college students' perceptions of persons and objects that they see or hear about in the course of daily life, and that these perceptions are often reflected in judgments of similarity. On this pretext, participants were given 20 randomly ordered pairs of objects in four different domains (countries, educational institutions, animals, and public figures) and asked to indicate the similarity of the first object in each pair to the second (e.g., "How similar is Korea to China?" "... Stanford University to the University of Cambridge?" "... Adolph Hitler to Joseph Stalin?"). Estimates were reported on a scale from 0 (*not at all similar*) to 10 (*very similar*). Upon completion of the similarity judgments, participants performed the computer-decision task employed in Experiment 1.

Participants in the control condition completed only the computer-decision task.

## Results

As we expected, making similarity judgments increased the likelihood of expressing a willingness to purchase a computer (85% vs. 50%), Wald  $\chi^2 = 4.90, p < .03, p_{\text{rep}} = .913$ . This was true despite the fact that participants' overall evaluations of the two computers did not differ between conditions (0.75 vs. 0.61, respectively).<sup>2</sup>

## DISCUSSION

The preceding experiments indicate that the disposition to make a purchase can be affected not only by stating a preference for alternatives in a quite different product domain, but also by expressing one's relative dislike for products in a different domain. Comparing the attractiveness of animals, comparing animals with respect to physical attributes, and estimating how similar one object is to another can have similar effects. Thus, the comparative-judgment processes that induce a comparative-judgment mind-set can be activated by experiences that are quite unrelated to purchase decisions.

<sup>2</sup>One should be cautious not to overgeneralize these conclusions. Not all similarity judgments may involve a comparison process. For example, suppose people are asked to assess the overall similarity of two objects, rather than to judge how similar one object is to the other. Although the two tasks appear to be similar on the surface, the first task may be performed by extracting the proportion of features that the two objects have in common without making a direct comparison. In this case, the effects we observed would not be evident.

More general implications of our research might also be noted. The effects of a comparative-judgment mind-set may exemplify a more general tendency for individuals who perform an activity that is part of a sequence of goal-directed actions to progress forward in the sequence rather than backward. This tendency could occur despite the fact that the later steps potentially depend on outcomes of the earlier ones. Gollwitzer, Heckhausen, and Steller (1990) have distinguished between the deliberative stage of goal-directed activity (i.e., deciding whether to pursue a goal) and the implemental stage (i.e., considering how to pursue the chosen goal). Activating thoughts that are specific to the implemental stage can sometimes lead to behavior that would otherwise not occur (see Dhar, Huber, & Khan, 2007). Several studies by Bargh and his colleagues (Bargh, Green, & Fitzsimons, in press; Chartrand & Bargh, 1996, 2002) have shown that people often engage in goal-directed activity without conscious awareness of the goal's influence. The research reported here implies that nonconscious goal-directed operations activated in one domain can generalize to other domains that require similar types of cognitive deliberation. A mind-set conceptualization of this possibility may be fruitful.

An interesting speculation derived from our conceptualization is that the consumption of material goods may be greater during election years, when citizens are continually being asked which of two political candidates they prefer, than in off-election years. Preliminary data bearing on this speculation are suggestive. An analysis of U.S. personal-consumption expenditures (data from U.S. Census Bureau, n.d.) between 1929 and 2002 (converted to real 1996 dollars) revealed that the average expenditure during presidential-election years was 2.2% greater than the average expenditure in the years immediately before and after (\$2,458 billion vs. \$2,406 billion). More strikingly, total retail-store sales were 9.4% higher during the 3 months prior to an election (August, September, and October) in the election years between 1953 and 2000 than during comparable periods of the years before and after the election years (\$285.44 billion vs. \$260.98 billion; data from U.S. Census Bureau, 2007). Although these differences were not statistically significant, their consistency with expectations is provocative.

**Acknowledgments**—This research was supported in part by Grants HKUST6053/01H, HKUST6194/04H, and HKUST6192/04H from the Research Grants Council, Hong Kong.

## REFERENCES

- Bargh, J.A., Green, M.L., & Fitzsimons, G.M. (in press). The selfish goal: Unintended consequences of intended goal pursuits. *Social Cognition*.
- Chartrand, T.L., & Bargh, J.A. (1996). Automatic activation of impression formation and memorization goals: Nonconscious goal priming reproduces effects of explicit task instructions. *Journal of Personality and Social Psychology*, 76, 893–910.
- Chartrand, T.L., & Bargh, J.A. (2002). Nonconscious motivations: Their activation, operation and consequences. In A. Tesser & D. Stapel (Eds.), *Self and motivation: Emerging psychological perspectives* (pp. 13–41). Washington, DC: American Psychological Association.
- Collins, A.M., & Loftus, E.F. (1975). A spreading activation theory of semantic processing. *Psychological Review*, 82, 407–428.
- Dhar, R., Huber, J., & Khan, U. (2007). The shopping momentum effect. *Journal of Marketing Research*, 44, 370–378.
- Förster, J., & Liberman, N. (2007). Knowledge activation. In A.W. Kruglanski & E.T. Higgins (Eds.), *Social psychology: Handbook of basic principles* (2nd ed., pp. 201–231). New York: Guilford Press.
- Gollwitzer, P.M., Heckhausen, H., & Steller, B. (1990). Deliberative and implemental mind-sets: Cognitive tuning toward congruous thoughts and information. *Journal of Personality and Social Psychology*, 59, 1119–1127.
- Higgins, E.T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E.T. Higgins & A.W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133–168). New York: Guilford Press.
- Kruglanski, A.W., Shah, J.Y., Fishbach, A., Friedman, R., Chun, W.Y., & Sleeth-Keppler, D. (2002). A theory of goal systems. In M.P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 34, pp. 331–378). San Diego, CA: Academic Press.
- Schank, R.C., & Abelson, R.P. (1977). *Scripts, plans, goals, and understanding: An inquiry into human knowledge structures*. Hillsdale, NJ: Erlbaum.
- Shafir, E. (1993). Choosing vs. rejecting: Why some options are both better and worse than others. *Memory & Cognition*, 21, 546–556.
- Smith, E.R. (1990). Content and process specificity in the effects of prior experiences. In T.K. Srull & R.S. Wyer, Jr. (Eds.), *Advances in social cognition* (Vol. 3, pp. 1–59). Hillsdale, NJ: Erlbaum.
- Smith, E.R. (1994). Procedural knowledge and processing strategies in social cognition. In R.S. Wyer, Jr., & T.K. Srull (Eds.), *Handbook of social cognition* (2nd ed., Vol. 1, pp. 101–151). Hillsdale, NJ: Erlbaum.
- Tversky, A. (1977). Features of similarity. *Psychological Review*, 84, 327–352.
- U.S. Census Bureau. (2007). *Advance monthly sales for retail and food services: Previous releases (1953 to present)*. Retrieved October 2007 from <http://www.census.gov/marts/www/previousreleases.html>
- U.S. Census Bureau. (n.d.). No. HS–32. Gross domestic product in current and real (1996) dollars: 1929 to 2002. Retrieved October 2007 from <http://www.census.gov/statab/hist/02HS0032.xls>
- Wyer, R.S., Jr. (2004). *Social comprehension and judgment: The role of situation models, narratives, and implicit theories*. Hillsdale, NJ: Erlbaum.
- Wyer, R.S., Jr. (2008). The role of knowledge accessibility in cognition and behavior: Implications for consumer information processing. In C. Haugtvedt, P. Herr, & F. Kardes (Eds.), *Handbook of consumer psychology* (pp. 31–76). Mahwah, NJ: Erlbaum.
- Wyer, R.S., Jr., & Carlston, D.E. (1979). *Social cognition, inference and attribution*. Hillsdale, NJ: Erlbaum.
- Wyer, R.S., Jr., & Srull, T.K. (1989). *Memory and cognition in its social context*. Hillsdale, NJ: Erlbaum.
- Xu, A.J., & Wyer, R.S., Jr. (2007). The effect of mind-sets on consumer decision strategies. *Journal of Consumer Research*, 34, 556–566.

(RECEIVED 8/9/07; REVISION ACCEPTED 1/6/08)