

# The Presenter's Paradox

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This analysis introduces the *Presenter's Paradox*. Robust findings in impression formation demonstrate that perceivers' judgments show a weighted averaging pattern, which results in less favorable evaluations when mildly favorable information is added to highly favorable information. Across seven studies, we show that presenters do not anticipate this averaging pattern on the part of evaluators and instead design presentations that include all of the favorable information available. This additive strategy ("more is better") hurts presenters in their perceivers' eyes because mildly favorable information dilutes the impact of highly favorable information. For example, presenters choose to spend *more* money to make a product bundle look *more* costly, even though doing so actually *cheapened* its value from the evaluators' perspective (study 1). Additional studies demonstrate the robustness of the effect, investigate the psychological processes underlying it, and examine its implications for a variety of marketing contexts.

At the beginning of a journey, one of this article's authors was sitting in a crowded airplane, awaiting take-off. After a 2-hour wait, a mechanical issue was announced, necessitating a switch to another aircraft. All passengers had to disembark, and many were visibly irritated. The airline did its best, or so they thought, to accommodate the disgruntled passengers by issuing the following gift packet: a \$35 discount coupon for future travel, an amenity coupon for a meal, premium beverage or mileage bonus, and a 25-cent phone card. At the time, our author thought to herself that the phone card, which amounted to about 5 minutes of free long distance, looked quite cheap and might not even allow for enough time to arrange alternate transportation

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given the 2-hour delay. Is it possible that the airline thought the thrifty coupon would *add* to the customers' evaluations of their damage-control efforts, but that from the customers' perspective it actually *detracted* from their evaluation of the package as a whole? Could one of the world's largest airlines be spending thousands of dollars each year on phone cards and inadvertently be hurting rather than helping their image?

In the current article we argue that this phone card example is a specific illustration of a more general research question: Do people who are presenting information correctly anticipate how the information they put forth will be combined in the minds of those who evaluate them? Taking a step back to analyze this scenario, we can see that there are two perspectives that must see eye to eye for the coupon booklet to be effective. There is a presenter, in this case the airline, who is making a decision about whether to include something in a presentation—in this case a thrifty coupon. There is also an evaluator, the airline customer, who is evaluating the information presented. Three questions of interest follow: First, how will customers combine their evaluations of the components of the coupon booklet when forming an impression of it? Second, how does the company itself think about the components when deciding what to include in the coupon booklet? And third, are there important divergences between the two perspectives?

Customers can combine the information either by a process that results in an adding pattern or a process that results in an averaging pattern, with differing consequences for how mildly favorable information (a thrifty coupon) will affect judgments when it appears alongside highly favorable information (a higher-value item like a \$35 travel coupon).

Additive patterns predict a positive effect, since the mildly favorable information increases the total amount of positive information—after all, the addition of 25 cents to the overall package does increase the value of the package. Averaging patterns predict a negative effect, since the mildly favorable information dilutes the impact of the highly favorable. Past work demonstrates the pervasiveness of processing that results in an averaging pattern when forming impressions of persons (Anderson 1965, 1968; see Eagly and Chaiken 1993 for a review) as well as product bundles (Gaeth et al. 1990; Yadav 1994). This rationale predicts that customers will form a more favorable impression of a coupon booklet containing only a high-value \$35 travel coupon than they will of a booklet containing both the high-value coupon plus a lower-value phone card, despite the objectively higher value of the bundle.

Everyday observations suggest, however, that presenters (i.e., individuals who are attempting to create impressions) fail to anticipate this averaging-like process on the part of evaluators. Instead, they mistakenly assume an additive decision rule (“more is better”) when presenting information, leading them to create bundles that are less effective in the eyes of consumers while being more expensive to their creators. The question of whether presenters indeed fail to anticipate evaluators’ information-processing mind-set—and, if so, why—has not been addressed in previous research, despite its important implications across many domains in consumer research and beyond. Before describing the studies conducted to test these hypotheses, we review past work to explain why the divergent mind-sets of presenters and evaluators may lead them to different judgments about the same target object.

### **SITUATED COGNITION: DIFFERENCES IN PERSPECTIVE LEAD TO DIFFERENCES IN JUDGMENT**

Several lines of research in the consumer behavior, psychology, and judgment and decision-making literatures demonstrate the pervasiveness of situated cognition. Situated cognition encompasses the notion that because, on a fundamental level, “thinking is for doing” (James 1890), our cognition becomes tuned or modified to fit the particular task, environment, or role in which we find ourselves (Asch 1952; Burson, Faro, and Rottenstreich 2010; Ehrlinger, Gilovich, and Ross 2005; Gershoff and Johar 2006; Gilovich, Medvec, and Savitsky 2000; Ichheiser 1949; Pronin, Gilovich, and Ross 2004; Schwarz 2006; Zajonc 1960). This work shows, for instance, that people’s goals, viewpoints, and expectations can mediate their perception and evaluation. Actors and observers, for example, make different causal attributions for the same behaviors (Jones and Nisbett 1971), at least in part because the two roles differ in their focus of attention. The observer’s perspective leads him or her to focus attention on the actor, making the situational reasons behind the actor’s behavior less salient. The actor’s focus, however, is outward toward the situation, heightening its

influence in their minds. People’s goals have also been shown to lead them to focus selectively on certain types of information. Individuals with promotion goals, for instance, are concerned with pursuing gains and accordingly focus on positive information about the self. In contrast, individuals with prevention goals are concerned with avoiding losses and thus are more attuned to negative information about the self (Lee, Aaker, and Gardner 2000). Extending this work to presentation contexts, we examine whether the role people have in presentation situations—be it presenter or evaluator—can structure the combination strategies people use when forming versus attempting to create impressions.

### **The Evaluator’s Perspective**

The primary task of a person evaluating a product bundle is to form an overall impression of the package that is presented. The goal of forming a coherent and unified impression induces a focus on the whole and requires evaluators to blend the components into one summary judgment. Such a focus on the “big picture” or the whole, as opposed to the individual components or the parts, has been referred to in the literature as holistic processing (Corneille and Judd 1999; Monga and Roedder John 2007; Nisbett et al. 2001; Srivastava and Raghuram 2002). Past work assessing how people in evaluative roles form impressions of multiattribute decision alternatives shows that, as adding warm water to hot water leads to water of a more moderate temperature, adding information that is moderately positive to information that is highly positive frequently leads to judgments that are evaluatively intermediate (Anderson 1965, 1981; Eagly and Chaiken 1993; Gaeth et al. 1990; Troutman and Shanteau 1976; Yadav 1994). The decrease in the positivity of evaluations with the addition of moderately positive stimuli that is brought about by such big picture or holistic processing results in an averaging rather than an adding pattern.

In one demonstration, Yadav (1994) asked consumers to rate the favorability of different sets of furniture items containing varying numbers of pieces. Consumers in the individual item condition read information about a bed that pretest participants had rated as excellent. Those in the two-item bundle condition rated a set consisting of two items: The same highly favorable bed plus a chest that was described as moderately favorable. Consumers’ ratings of the furniture sets showed a pattern that resembled averaging. They gave higher favorability ratings to the set containing the bed alone than they gave to the set containing both the bed and the moderately favorable chest. A similar averaging-like pattern was observed in ratings of a highly favorable computer as compared to a bundle containing the same computer plus a moderately favorable printer. Thus, the task of the evaluator to form an impression of a bundle induces an impression formation mind-set and a focus on the big picture. When evaluators mentally combine attributes that vary in their positivity, this combination process produces judgments that portray an averaging pattern.

## The Presenter's Perspective

An important question that past work has left open and that is the focus of our current investigation is whether companies or individuals who are presenting information anticipate the information-processing mind-set of evaluators when they make decisions about what to include in a presentation. On the one hand, it is possible that people in presentational roles will be quite adept at anticipating evaluators' judgments. Consumers have extensive experience evaluating product bundles that others present in the marketplace (Guiltinan 1987; Hamilton and Koukova 2008; Yadav 1994). Consumers also make presentation decisions every day, whether it is what to highlight on a resume or how to advertise one's lightly used consumer appliances on eBay. Given their extensive experience, it is reasonable to think that consumers will be able to intuit the perspective of the evaluator and thus anticipate holistic processing in others' judgments. On the other hand, the research literature on situated cognition (see, e.g., Schwarz 2006; Smith and Semin 2004) as well as everyday observations such as the phone card example raise the possibility that people in presentational roles will fail to anticipate that a moderately positive attribute will dilute the desirability of the overall package from the evaluators' perspective.

One reason presenters may fail to intuit holistic processing on the part of evaluators is that, while the evaluator's task is to make a summary judgment of the overall presentation, the task of the presenter is different: instead of judging the target as a whole, the act of constructing a presentation from its individual components may turn the pieces themselves into the objects of attention. Since presenters face many pieces of potentially relevant information and need to determine, in a bottom-up fashion, which ones to include in a presentation, this task may naturally lead the presenter to focus on each individual piece of information as a discrete entity. Focusing on the individual components of an object as bounded entities that are independent from the other components has been referred to in the literature as a "piecemeal" or "analytic" information-processing style (Fiske and Taylor 1991; Mantel and Kardes 1999; Moskowitz 2001; Nisbett et al. 2001). To the extent that the presenter's task focuses them on the individual components, a simple piecemeal decision rule could thus be applied, in line with the general principle of compatibility in decision making (Shafir 1993; Slovic, Griffin, and Tversky 1990; Tversky, Sattath, and Slovic 1988). If a given piece of information is "good" (i.e., is better than neutral), the presenter will conclude that it is compatible with the message he or she seeks to convey. Including all positive components regardless of their extremity will result in presenters creating messages that look best when viewed in a piecemeal fashion that considers each element in isolation to arrive at a cumulative judgment, resulting in an adding pattern. However, the same message will be less compelling when viewed in a holistic fashion, which results in an averaging pattern. This would explain why the airline carrier in the opening example would include a less favorable calling card. While not as good as the \$35

travel voucher, it is above neutral and is thus better than nothing. Moreover, economic reasoning would agree: adding a 25-cent phone card increases the monetary value of the package, a fact that the presenter, who calculates the overall cost for the company, is more aware of than the consumer, who merely evaluates his or her own benefit. Therefore, we hypothesize that an important manifestation of situated cognition will emerge in presentation situations: whereas presenters' focus on the individual components will lead them to assume that "more is better" in presentation situations, their evaluators will use a holistic process when forming evaluations—with the unanticipated result that the "more is better" strategy backfires.

## OVERVIEW: THE PRESENT RESEARCH

We present seven studies that document and analyze the Presenter's Paradox. In studies 1–4, our main question of interest is whether people in presentational roles correctly anticipate the judgments that evaluators make or whether they mispredict evaluators' judgments. To probe for the Presenter's Paradox, presenters in our studies—as in the real world—are always in the position of making a choice about what information to include in their messages, while evaluators are always in the position of forming an impression of one version of the presented message, again resembling their situation in natural contexts. This setup matches the common consumer situation exemplified in the opening example where a presenter (e.g., an airline) chooses which features to include in a bundle (e.g., the amenities to include in a coupon booklet), while the evaluators (e.g., the airline's customers) receive a specific bundle (e.g., a particular coupon booklet). We find convergent support for the Presenter's Paradox across five unique consumer contexts—presenters consistently choose to include mildly favorable information in their presentations and fail to recognize that its inclusion lowers judgments from the evaluators' perspective. For instance, presenters in study 1 chose to add a mildly favorable free one song download to a bundle involving an MP3 music player, failing to recognize that its inclusion in the package would actually cheapen—rather than enhance—the perceived value of the bundle from the customers' perspective. Subsequent studies show that the same pattern extends to advertising contexts (study 2), packages with negative features (study 3), and bundles containing alignable attributes (study 4).

Having established this novel phenomenon in studies 1–4, we turn to a closer examination of the underlying processes in studies 5–7. Results demonstrate that the judgmental divergence is driven by differences in holistic versus piecemeal processing. Study 5 experimentally manipulated holistic and piecemeal processing and showed that when evaluators and presenters were induced to process holistically they showed a pattern that resembled averaging; conversely, when the two roles were induced to process in a piecemeal fashion they showed a pattern that more closely resembled adding. Study 6 extended the finding to show that promotion and prevention focus—individual differences variables that

past work has associated with holistic and piecemeal processing, respectively—moderate the results in a way similar to the experimental manipulation of those constructs. And, study 7 examined a debiasing manipulation, showing that when presenters were prompted to consider the “big picture,” they were better able to intuit evaluators’ judgments. Thus, convergent evidence from three separate studies, each using a different methodology, implicate differences in holistic versus piecemeal processing in the disconnect between presenters and evaluators.

## STUDY 1: IPOD TOUCH

Study 1 examines whether people taking the perspective of a person creating a product bundle will correctly anticipate that customers will use a holistic process that results in an averaging pattern when evaluating the package as a whole. Presenters imagined they were in charge of creating packages containing items related to an MP3 player. They could either bundle an iPod Touch MP3 player with 8 megabytes of memory with a cover or the same iPod Touch MP3 player with 8 megabytes of memory with a cover and one free music download. We predicted that presenters would choose to add the mildly favorable one song download, thus spending more money to make the package seem more valuable. We further predicted that this addition would, ironically, cheapen—rather than enhance—the perceived value of the package from the customer’s perspective.

### Method

Fifty-four consumers from the Amazon Mechanical Turk website, an online panel of marketing research participants, participated. All participants were located in the United States, were 18 or older, and were compensated for their time.

Presenters read, “Imagine you are in charge of creating packages for iPods. You have the option to give customers either an 8-megabyte iPod Touch and cover or the same 8-megabyte iPod Touch and cover along with one free music download. If your goal is to have consumers believe the package is more valuable, which one would you choose?” The order of description and presentation of the two packages was counterbalanced. Presenters then chose one of the packages.

Participants in the between-subjects evaluators (customer) condition read, “Imagine you are looking to buy a gift for a friend and you are considering purchasing an iPod Touch. In the store you see the following iPod package for sale”; participants then saw the 8-megabyte iPod Touch and cover (and one free music download) package and were asked, “Please estimate how much you would be willing to pay for this gift in the space below.”

### Results and Discussion

*Presenter’s Paradox.* As predicted, evaluators’ estimations of the packages reflected a holistic evaluation process

that resulted in an averaging-like pattern. They were willing to pay more for the smaller package that contained only the iPod ( $M = \$242.19$ ,  $SD = \$108.41$ ) than for the larger and economically more valuable package that contained the same iPod plus a free music download ( $M = \$176.71$ ,  $SD = \$86.16$ ;  $F(1, 40) = 4.7$ ,  $p < .05$ ).

As predicted, presenters failed to intuit evaluators’ judgments and instead made presentation decisions that reflected an assumption of adding. Ninety-two percent (11 out of 12) of presenters chose to include the music download, whereas only 8% (1 out of 12) left it out ( $\chi^2(1) = 8.3$ ,  $p < .01$ ).

*Ruling Out “Inferencing” as an Explanation.* It is possible that a subset of our participants who were not knowledgeable about iPods used the number of free downloads to infer the quality of the MP3 player itself, reasoning that a mildly favorable number of downloads suggests a mildly favorable music player. iPod-savvy consumers, on the other hand, would already know the products, so their impression of the music player would be stable and not be affected by the other components in the bundle. We had data assessing participants’ familiarity with iPods on a 7-point Likert scale for a subset of the sample and used it to test whether such inferences were necessary in producing the effect. An ANOVA showed that there was no interaction between participants’ product familiarity (continuous) and the presence or absence of the free download on participants’ willingness to pay (WTP) estimates of the packages ( $F(1, 23) < 1$ ,  $p = .86$ ). This absence of an interaction demonstrates that inferences about the quality of the music player from the number of downloads are not necessary for the effect. Regardless of consumers’ familiarity with the product, the music download exerted a similar effect on their estimated value judgments.

Study 1 thus provides an initial demonstration of the Presenter’s Paradox with a compelling example. Presenters’ failure to understand the information-processing mind-set of evaluators leads them to make an error in judgment—they chose to add one free music download, only to have it unwittingly cheapen the iPod package in the eyes of their customers. In study 2 we replicate this effect in a different context and directly assess whether presenters and evaluators have different intuitions about whether the mildly favorable information will add or detract, respectively.

## STUDY 2: HOTEL AMENITIES

In study 2, participants take the perspective of a hotel owner who is choosing which amenities to feature in an advertisement. Of interest is whether owners will correctly anticipate that customers are likely to use holistic processing when forming an impression of the hotel, rating a hotel with moderately favorable amenities as less desirable than one with highly favorable amenities alone. We predicted that hotel owners would choose to feature both highly favorable and moderately favorable amenities in the advertisement, assuming that more is better. In contrast, we predicted that this strategy would backfire when evaluators mentally com-

bine the amenities into one holistic impression, which will result in more favorable evaluations of the hotel that offers a small number of highly positive amenities than of the hotel that offers additional moderately favorable amenities. We additionally asked participants to indicate the extent to which the addition of the moderately favorable amenity adds or detracts from the overall advertisement.

Method

Undergraduates ( $N = 227$ ) at the University of Michigan and Princeton University completed this study along with unrelated others as part of a "Questionnaire Day." They received \$7–\$9 depending on the length of the packet.

Presenters (owners) read, "Imagine that you are the owner of a medium-sized beachfront hotel. . . . You are getting ready to list your hotel on hotels.com. . . . The customers you are targeting are college students at [your university]. Your hotel has the following amenities. . . . Ratings can range from five stars (excellent) to one star (poor)." Presenters saw that their hotel had two amenities that had been rated by an outside agency, a pool rated five stars and a restaurant rated three stars, and they chose which to include in the advertisement. Presenters also estimated, in a counterbalanced order, how much prospective customers would pay if the hotel had the pool only (had both the pool and the restaurant). Finally, presenters predicted whether the restaurant would add to or detract from prospective customers' evaluations (1 = detract; 7 = add). One participant in the presenters condition failed to respond to the choice question.

Evaluators (customers) read, "You are planning a vacation with some friends from [your university]. . . . On the hotels.com site, hotels can list selected amenities, and the rating that the amenities received from Triple A's Accommodations guide. . . . Below is Triple A's rating for each amenity

the hotel listed." Evaluators, in a between-subjects design, saw an advertisement featuring the five-star pool only (the five-star pool and the three-star restaurant) and indicated how much they would be willing to pay per night (per room). Those in the pool plus restaurant condition also reported whether the restaurant added or detracted from their evaluation.

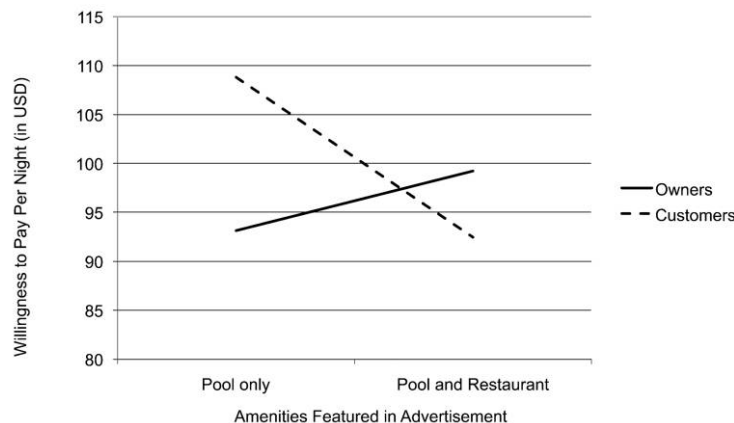
Results and Discussion

*Presenter's Paradox.* As predicted, customers used a holistic process when forming their WTP judgments, which resulted in a pattern of results that resembled averaging. Customers seeing the advertisement featuring both the five-star pool and the three-star restaurant were willing to pay significantly less per night ( $M = \$92.45$ ,  $SD = \$38.42$ ) than those seeing the advertisement featuring the five-star pool only ( $M = \$108.80$ ,  $SD = \$55.91$ ;  $F(1, 149) = 4.4$ ,  $p < .05$ ). In contrast, and also as predicted, presenters failed to anticipate evaluators' judgments. Seventy-two percent (54 out of 75) of presenters included both the five-star pool and three-star restaurant in advertisement, whereas only 28% chose to advertise only the five-star pool ( $\chi^2 = 14.5$ ,  $p < .001$ ). Presenters also wrongly expected to be able to charge a higher per night room rate if they advertised both the five-star and three-star amenities ( $M = \$99.22$ ,  $SD = \$47.41$ ) than if they advertised only the five-star one ( $M = \$93.13$ ,  $SD = \$44.89$ ;  $F(1, 75) = 9.57$ ,  $p < .01$ ). This results in the cross-over pattern shown in figure 1, which highlights the discrepancies between presenters' and evaluators' perspectives. In addition, while presenters felt that listing the three-star restaurant added to the advertisement ( $M = 4.5$ ,  $SD = 1.30$ ), customers thought it did not ( $M = 3.81$ ,  $SD = 1.27$ ),  $F(1, 149) = 12.49$ ,  $p < .01$ ).

These findings replicate study 1. Presenters choosing

FIGURE 1

STUDY 2: OWNERS' ESTIMATES OF CUSTOMERS' WILLINGNESS TO PAY JUDGMENTS AND CUSTOMERS' ACTUAL WILLINGNESS TO PAY JUDGMENTS AS A FUNCTION OF THE NUMBER OF AMENITIES FEATURED IN THE ADVERTISEMENT



which hotel amenities to feature in an advertisement failed to predict that customers' WTP judgments would be derived by holistic processing. Instead, presenters' decision process reflected an incorrect prediction that consumers would use piecemeal processing when evaluating the amenities, which would lead them to add when making judgments. Specifically, while the hotel owners thought that advertising the moderate restaurant would increase customers' valuations of their hotel, prospective customers thought that the rooms were worth less when the advertisement featured both the pool and the restaurant when compared with the pool alone.

*Ruling Out More Information as an Explanation.* To confirm that mildly favorable and not additional information per se drives the averaging effect for evaluators (Norton, Frost, and Ariely 2007), we conducted a between-subjects posttest comparing consumers' WTP judgments for a hotel featuring a five-star restaurant and a five-star pool to a hotel featuring only the five-star pool. Participants gave nonsignificantly higher WTP judgments to the hotel featuring two five-star amenities ( $M = 118.63$ ,  $SD = 28.10$ ) than to the hotel featuring one ( $M = 110.00$ ,  $SD = 69.60$ ;  $F(1, 17) = .11$ ,  $p = .75$ ), confirming that less attractive information rather than more information drives the effect.

In a marketing context, most presentation decisions will resemble studies 1 and 2, which focused on the presentation of positive attributes. However, the same conceptual rationale should apply to the presentation of negative information. Much as mildly positive information dilutes the impact of highly positive information in the evaluator's eyes, mildly negative information should dilute the impact of highly negative information—and once again, presenters may fail to intuit this. Study 3 tests this possibility in the context of a public policy issue, namely, the design of penalties for littering.

### STUDY 3: LITTERING PENALTIES

Study 3 examines whether the Presenter's Paradox will emerge when the components of the bundle are negative rather than positive. Sometimes, penalties used by policy makers contain multiple components, such as a jail sentence or community service requirement, in addition to a monetary component such as a fine. For instance, in the state of Michigan the penalty for hitting a construction worker while driving is noted on department of transportation road signs as being 15 years in jail plus a fine of \$7,500. The signs in Illinois read 14 years in jail plus a fine of \$10,000. In both of these cases the penalty can strike drivers as "off" because the jail component seems to be highly severe, while, in comparison, the fine seems like a moderate penalty. Indeed, from a holistic processing perspective, the fine may soften evaluators' perceptions of the penalty overall.

In study 3, we asked government employees (presenters) to create a penalty structure designed to discourage littering and asked community residents (evaluators) to evaluate the severity of different penalty structures. We predicted that the presenter mind-set would lead presenters to focus on the

individual components as bounded and independent entities when they made their recommendations. Thus, we predicted that they would recommend a penalty structure that included both a strongly severe penalty plus a moderately severe one. In contrast, we predicted that evaluators would focus on the whole when forming an impression of the penalty, which would lead them to ironically find the penalty structure more severe when it contains only the strongly severe penalty.

### Method

A total of 141 individuals ( $n = 29$  government employees,  $n = 112$  undergraduates) volunteered to participate. Government employees were recruited in person and completed hard-copy questionnaires, whereas the e-mails of undergraduates were randomly selected from the student directory at the University of Michigan, and volunteers were recruited to complete an online survey.

Presenters (government employees) read, "Every year the highways become filled with tons of litter. Suppose that the governor has charged you with the task of curbing littering in the state, especially that of college students. Before designing the road signs, however, you must decide the penalty structure. You are considering modeling the penalty structure of either State A or State B: State A: \$750.00 fine or State B: \$750.00 fine and 2 hours of community service." "What would you recommend to the governor? (State A's Penalty or State B's Penalty)." The order of the penalties was counterbalanced.

The undergraduate sample read one of two evaluator conditions: "Imagine you are driving on the highway, and you see a sign stating the penalty for littering: THE PENALTY FOR LITTERING IS \$750 [AND 2 HOURS OF COMMUNITY SERVICE]." Participants were then asked, "How severe does this penalty for littering seem to you?" (1 = not severe, 7 = very severe).

### Results and Discussion

*Presenter's Paradox.* As predicted, evaluators focused on the whole when forming an impression of the penalties, rating the \$750 plus 2 hours of community service penalty as less severe ( $M = 5.22$ ,  $SD = 1.50$ ) than the \$750 fine only penalty ( $M = 5.83$ ,  $SD = 1.28$ ;  $F(1, 110) = 5.3$ ,  $p < .05$ ). In contrast, and also as predicted, presenters failed to anticipate evaluators' information-processing mind-set. Eighty-six percent (25 out of 29) of presenters chose the penalty including both the \$750 fine and 2 hours of community service, whereas only 14% chose the penalty with the \$750 fine alone ( $\chi^2 = 15.2$ ,  $p < .001$ ). This replicates the Presenter's Paradox with negative information. While the government employees believed that adding 2 hours of community service to the fine would decrease evaluators' propensity to break the law, evaluators actually thought the penalty structure was more severe with only the strongly severe penalty.

Note also that study 3—like study 1—demonstrates the effect in a situation where the components of the "bundle"

do not directly bear on each other and where inferences about unmentioned components are not relevant. That is, a small community service penalty does not make a \$750 fine less harsh. In addition, like the product bundle in study 1, the penalty for littering is a what-you-see-is-what-you-get situation where all components of the penalty are known upfront. Thus, implicit assumptions about additional components cannot account for the observed effects.

While the evidence from studies 1–3 for the Presenter's Paradox is robust, one question that remains is whether it will still emerge when the attributes of the message are alignable, based on one single metric. For example, in study 3, the attributes of the message are not alignable: the \$750 fine is measured in dollars and the 2 hours of community service is measured in time. This misalignment may thus partially explain why evaluators have difficulty recognizing the additive effect of a strong and a mild attribute. Study 4, therefore, seeks to demonstrate that the Presenter's Paradox persists even when the attributes are alignable and measured on the same metric.

#### STUDY 4: ALIGNABLE ATTRIBUTES: SCHOLARSHIP EVALUATIONS

Study 4 examines whether the effect persists when the components of the bundle are alignable, or described along the same dimension (e.g., both described in terms of monetary value) as opposed to nonalignable and described along different dimensions (e.g., a fine and a community service component). Presenters created terms for scholarships at their university by choosing which of two possible components—a large amount of money in tuition reimbursement and a small amount of money for textbooks—to award recipients. Both components were described in terms of monetary value. Evaluators imagined winning one of the scholarships and judged how generous it was, how happy they would be to receive it, and how hard they would work to obtain it again in the future.

We predicted that adding the small amount of money for textbooks would unwittingly lower recipients' evaluations of the scholarship relative to the situation where they received the large amount of money for tuition reimbursement alone. We additionally predicted that presenters would fail to predict the information-processing mind-set of evaluators and would choose to give recipients the textbook money without recognizing that it could detract.

#### Method

One hundred thirteen undergraduates at Virginia Tech participated in exchange for extra credit in their introduction to marketing course. Students completed the study in the behavioral laboratory in individual cubicle rooms using the online survey utility Qualtrics.

Presenters read, "Imagine you are in charge of creating terms for scholarships at Virginia Tech. These scholarships are highly competitive to win. You have the option to give students either a tuition credit of \$1,750 plus an additional

\$15 to use toward textbooks or a tuition credit of \$1,750. If your goal is to make recipients think that the scholarship is the most generous, what would you choose to give? (choose Scholarship 1 or 2)." The order in which the two scholarships were described and presented was counterbalanced.

Evaluators in a between-subjects design read, "Imagine that you won a highly competitive scholarship for the upcoming academic year at Virginia Tech. The terms of the scholarship are as follows: \$1,750 tuition credit [and \$15 to use toward textbooks]." Participants judged the generosity of the scholarship, how happy they would be to receive it, and how hard they would work for it in the future (1 = not at all, 7 = very much).

#### Results and Discussion

*Presenter's Paradox.* The generosity, happiness, and work-hard dependent variables were predicted to be theoretically similar so were treated as repeated measures in an ANOVA. As predicted, the Presenter's Paradox replicated for a bundle with alignable components. Evaluators rated the scholarship containing \$1,750 in tuition credit plus \$15 for textbooks as less generous ( $M = 3.34$ ,  $SD = 1.37$ ), as making them less happy ( $M = 5.76$ ,  $SD = 1.43$ ), and as making them less apt to work hard to win it again in the future ( $M = 4.41$ ,  $SD = 1.52$ ) than the scholarship that consisted of the \$1,750 tuition credit alone ( $M_{\text{gen}} = 4.29$ ,  $SD = 1.43$ ;  $M_{\text{happy}} = 6.38$ ;  $SD = 1.10$ ;  $M_{\text{hard}} = 5.06$ ,  $SD = 1.43$ ;  $F(1, 61) = 7.07$ ,  $p < .01$ ). There was no interaction between whether evaluators received the \$15 for books or not and the three repeated measures, confirming they were theoretically similar ( $F(2, 122) < 1$ ,  $p = .65$ ).

As predicted, presenters failed to anticipate evaluators' information-processing mind-set. Sixty-four percent (32 out of 50) of presenters thought evaluators would rate the tuition credit plus textbook money scholarship as more generous, whereas only 36% thought the tuition credit alone would be perceived as more generous ( $\chi^2 = 3.92$ ,  $p < .05$ ).

Study 4 replicates the effect established in studies 1–3 with alignable attributes that were both described in terms of monetary value. Presenters' failure to understand the information-processing mind-set of evaluators leads them to make a costly error in judgment—they spent more money on a scholarship, only to unwittingly undermine their generosity in the eyes of their recipients. As far as we know, this study demonstrates for the first time that adding actual money to a bundle can lead to lower valuation judgments via a holistic process.

#### STUDIES 5–7: UNDERLYING PSYCHOLOGICAL PROCESSES

On theoretical grounds, we may expect that the structure of presenters' and evaluators' tasks is at the heart of the paradox documented in studies 1–4. Presenters face many pieces of potentially relevant information and need to determine, in a bottom-up fashion, which ones to include in

a presentation. This presumably draws attention to each individual piece of information as a discrete entity and a focus on piecemeal processing. If a given piece of information exceeds a neutrality threshold, the presenter will conclude that it is compatible with the message he or she seeks to convey and will include it. This results in presentations that would fare better under an adding rather than averaging rule. In contrast, evaluators' primary task is to make a summary judgment of the overall presentation, which fosters a focus on holistic processing and the big picture and results in an averaging pattern as observed in many impression formation studies (Anderson 1965; Gaeth et al. 1990; Yadav 1994; see Eagly and Chaiken 1993 for a review).

This rationale suggests that the Presenter's Paradox should be attenuated or eliminated when presenters are induced to focus on the overall package rather than the individual pieces. Conversely, it would also suggest that if evaluators are induced by the situational context to focus on the individual components of the package rather than the big picture, they may make judgments that more closely approximate piecemeal processing and an adding decision rule.

In the next section, we examine this possibility across three separate studies, each using a different methodology in order to obtain convergent validity. Study 5 demonstrates this by experimentally manipulating holistic and piecemeal processing; study 6 extends the finding to show that an individual differences variable that is associated with holistic and piecemeal processing—regulatory focus—moderates the results in a similar way to the experimental manipulation of those constructs; and study 7 uses our proposed mechanism to develop a novel debiasing technique for presenters. The results across all studies converge on the same point, namely, that evaluators process information holistically and presenters process information in a piecemeal fashion.

### STUDY 5: EXPERIMENTALLY MANIPULATING HOLISTIC AND PIECEMEAL PROCESSING

Study 5 manipulates the information-processing goals of presenters and evaluators to investigate the psychological processes underlying their judgments. Past work shows that holistic and piecemeal processing can be experimentally manipulated by specific information-processing goals (Hamilton, Katz, and Leier 1980). Holistic processing can be induced by impression formation goals (e.g., form an impression of this target). This is because the goal of forming a coherent impression leads perceivers to relate each piece of information in a set to the others in a holistic fashion in an attempt to create one summary impression (Hamilton et al. 1980). In contrast, piecemeal processing can be facilitated through memory goals (e.g., memorize this information about the target as you will be asked to recall it later; Hamilton et al. 1980). Memory goals elicit piecemeal processing because the goal of memorizing forces a focus on the individual components as independent and bounded entities

and does not provide perceivers with incentives that would prompt them to create a coherent organization (Hamilton et al. 1980). In study 5, we used memory versus impression instructions to manipulate whether presenters and evaluators processed the information holistically or in a piecemeal fashion. Our rationale predicts that presenters spontaneously use piecemeal processing when choosing what components to include in a bundle, whereas evaluators spontaneously use holistic processing when forming a judgment about the bundle. Consequently, we expected that presenters tasked with a memory goal (which should induce piecemeal processing) and evaluators tasked with an impression formation goal (which should induce holistic processing) would make judgments that mirrored the spontaneous judgments for presenters and evaluators that we observed in studies 1–4. In contrast, we predicted that when presenters were encouraged to process the information holistically via an impression formation goal and when evaluators were encouraged to process the information in a piecemeal fashion via a memory goal, their judgments would be moderated. Presenters under impression formation goal instructions should process information more holistically, which should make them better at intuiting evaluators' natural judgments and give them insight into the fact that mildly favorable information can potentially detract from overall judgments. Conversely, evaluators under memory goal instructions should process information in a more piecemeal fashion, which should make their judgments look more like those of presenters in the natural context.

### Method

E-mail addresses were randomly selected from the student directory at Virginia Tech. Selected students were emailed a request to participate in the study along with a link to a web survey. One hundred two students responded to the request to complete the survey, yielding a response rate of approximately 20%.

The scholarship scenario from study 4 was used to test predictions. Presenters read, "Imagine you are in charge of creating terms for scholarships at Virginia Tech. These scholarships are very competitive to win" and were presented with two possible scholarships, one with a \$1,750 tuition credit and the other with the same tuition credit along with an additional \$15 for textbooks. The scholarships were presented in a counterbalanced order. Participants in the between-subjects evaluators condition read, "Imagine that you won a highly competitive scholarship for the upcoming academic year at Virginia Tech." Participants then saw the tuition credit (and \$15 for textbooks) scholarship.

*Manipulating Holistic and Piecemeal Processing.* Directly before reading the components of the scholarship/s, presenters and evaluators in the piecemeal processing condition were told, "Your goal is to memorize the individual components of the scholarship [each of the scholarships] carefully because you will be asked to recall them later." Presenters and evaluators in the holistic processing condition



read, "Your goal is to form a general impression of the scholarship [each of the scholarships individually]."

*Dependent Variables.* After reading the experimental materials, presenters were asked, "If your goal was to make recipients the happiest, what scholarship would you choose to give?" Evaluators judged both how happy they would be to receive the scholarship and how hard they would work to get it again in the future (1 = not at all; 7 = very much), which were analyzed as repeated measures.

## Results and Discussion

As predicted, whether participants were induced to process the information holistically or in a piecemeal manner when making their choices/judgments significantly moderated presenters' and evaluators' judgments of the scholarships. Specifically, for evaluators there was an interaction between the type of information-processing goal to which they were assigned and whether they received the \$15 for textbooks or not on their reported happiness and intention to work hard to receive it again in the future ( $F(1, 41) = 4.34, p < .05$ ). Planned comparisons showed that, as predicted, when evaluators were induced to process the information holistically, their judgments showed a similar pattern to those from studies 1–4. Evaluators were less happy to receive the scholarship with the tuition credit plus money for textbooks ( $M = 4.85, SD = 1.68$ ) and were less apt to work hard to win it in the future ( $M = 4.00, SD = 1.96$ ) than were evaluators who received the tuition credit only (happy:  $M = 6.00, SD = 1.49$ ; work hard:  $M = 5.70, SD = 1.06$ ; repeated measures ANOVA  $F(1, 21) = 5.26, p < .05$ ). In contrast, when evaluators were induced to process the information in a piecemeal fashion, the difference between their ratings of the tuition credit plus textbook money scholarship (happy:  $M = 6.69, SD = .63$ ; work hard:  $M = 5.69, SD = 1.18$ ) and the scholarship with the tuition credit only (happy:  $M = 6.44, SD = .88$ ; work hard:  $M = 5.78, SD = 1.09$ ) was attenuated and no longer significant ( $F < 1$ ).

Presenters' judgments were also significantly moderated by the type of information processing they used when making their choices. As expected, presenters were more apt to include the textbook money when they were experimentally induced to process the information in a piecemeal fashion than when they were induced to process the information holistically. Seventy-nine percent (21/27) of presenters in the memory goal condition included the small amount of money for textbooks in the scholarship, whereas only 43% (13/30) of those in the impression goal condition did ( $\chi^2(1) = 4.83, p < .01$ ). As predicted, significantly more participants in the memory goal participants included the textbook money than did not ( $\chi^2(1) = 8.33, p < .01$ ), while the difference among impression goal participants was attenuated and no longer significant ( $\chi^2(1) < 1$ ).

In sum, study 5 provides direct experimental support for the hypothesized role of holistic and piecemeal processing in the Presenter's Paradox by using processing goals as an

independent manipulation of holistic versus piecemeal processing style. First, the previously observed results replicated when evaluators and presenters were induced into the processing style they were assumed to adopt spontaneously. Evaluators induced to process the components of the bundle holistically showed a pattern of judgment that resembled averaging, as obtained in studies 1–4. Conversely, presenters induced to process the components in a piecemeal fashion showed an additive pattern, as obtained in studies 1–4. Second, the otherwise obtained patterns were reduced to non-significance when evaluators and presenters were induced into the respective "other" processing style. When evaluators' attention was focused on the individual components as bounded entities, the averaging pattern was strongly attenuated and no longer reliable. Conversely, when presenters were induced to process the information holistically through an impression formation goal, they became better at intuiting evaluators' spontaneous judgments and were more likely to recognize that mildly favorable information can detract. This again strongly attenuated the otherwise observed additive pattern, which was no longer reliable. In short, the Presenter's Paradox observed in studies 1–4 only emerged when the processing strategies of presenters and evaluators diverged; when both followed the same processing strategy, presenters' decisions and evaluators' judgments were largely in agreement. Study 6 provides further support for the crucial role of holistic versus piecemeal processing by drawing on individual differences in processing style.

## STUDY 6: REPLICATION WITH AN INDIVIDUAL DIFFERENCE VARIABLE ASSOCIATED WITH HOLISTIC VERSUS PIECEMEAL PROCESSING DIFFERENCES

Study 5 shows the process behind the effect, which is driven by the divergent tasks of the evaluator and presenter. There are other variables that can affect piecemeal versus holistic processing, and any one of them should be able to moderate the presenter/evaluator differences in a similar fashion. Study 6 examines whether similar results will obtain when using one such individual difference variable that has been shown to be associated with differences in holistic versus piecemeal processing, namely, regulatory focus. Regulatory focus is comprised of promotion focus and prevention focus, two theoretically distinct constructs that are each measured on a different scale rather than as opposing endpoints on one scale. Thus, high promotion is not theoretically equivalent to low prevention and high prevention is not theoretically equivalent to low promotion.

Several studies have shown that promotion-focused individuals, who are approach oriented, tend to process information holistically and focus on the big picture (Forster and Higgins 2005; Lee, Keller, and Sternthal 2010; Pham and Chang 2010; Zhu and Meyers-Levy 2007). In contrast, prevention-focused individuals, who are avoidance-oriented, tend to process information in a piecemeal fashion, attending to the individual attributes of an object rather than to the

relations among items in a global sense (Forster and Higgins 2005; Zhu and Meyers-Levy 2007). In one demonstration, Zhu and Meyers-Levy (2007) showed that promotion-focused consumers processed information about advertisements in a holistic fashion. They were more apt to see and create relations among attributes in the ads and to process information in an integrative manner even when the ads had been specifically designed to have no easily discernable relationship between the attributes. In contrast, they showed that prevention-focused individuals were more apt to engage in item-specific elaboration, which entails a focus on the specific attributes of an item independent of others. Forster and Higgins (2005) corroborated the finding that promotion-focused participants focus on the “forest,” while prevention-focused individuals process information in a more piecemeal fashion and focus on the “trees.” Their participants saw stimuli in which large letters were made of small letters (e.g., lots of little letter *s*'s arranged to make a bigger letter *H*) and indicated which of two letters appeared on the screen. Promotion-focused participants were quicker to see the “big picture”—they were faster to identify the large letters and slower to identify the small letters. Prevention-focused individuals, however, focused in on the smaller details—they were quicker to identify the smaller letters and slower to identify the larger letters.

We reasoned that the differences in information processing between these two types of individuals should work similarly to experimental manipulations of holistic versus piecemeal processing and thus should moderate participants' choices and judgments. Specifically, our studies up to this point have shown that the roles of presenter and evaluator foster different types of information processing—presenters' task of constructing a presentation from the bottom up leads them to process in a piecemeal manner, while evaluators' task of making a general evaluation leads them to focus on the big picture and process in a holistic fashion. Here we examine whether we can use individual differences in regulatory focus to pull people away from the default processing mode that comes with their role and into the opposite processing mode. That is, we predicted that a strong personal tendency to process holistically (i.e., as would be the case for someone high on promotion-focus) may override the default tendency of presenters to process by piecemeal and, conversely, that a strong personal tendency to process in a piecemeal manner (i.e., as would be the case for someone high on prevention focus) may override the default tendency of evaluators to process holistically. In the face of the strong situational manipulation that comes from their role (presenter versus evaluator), we would expect that the presence of a tendency (e.g., high promotion, high prevention) would be stronger and give us more variance to find an effect than would the absence of a tendency (i.e., low promotion, low prevention), which would likely be wiped out by the power of the situation. Thus, we focused on those variables in our analysis. To test our predictions, participants completed the scholarship scenario from study 4 and also completed an

individual differences scale to assess their degree of promotion and prevention focus (Higgins et al. 2001).

## Method

One hundred three undergraduates at Virginia Tech completed this study in exchange for extra credit in their introduction to marketing course. Students completed the experimental materials in the behavioral laboratory in individual cubicle rooms using the online survey utility Qualtrics.

Participants were assigned to either a presenter or evaluator role and completed the scholarship scenario from study 4. They also filled out the regulatory focus individual differences measure (Higgins et al. 2001) as well as several unrelated questionnaires.

## Results and Discussion

As in the previous studies, evaluators' judgments reflected a holistic process that resulted in an averaging pattern. Those receiving a scholarship consisting of \$1,750 in tuition and \$15 for textbooks judged it to be less generous ( $M = 3.54$ ,  $SD = 1.42$ ), were less happy with it ( $M = 5.35$ ,  $SD = 1.16$ ) and were less willing to work hard for it in the future ( $M = 4.08$ ,  $SD = 1.67$ ) than those receiving the same tuition credit without money for textbooks (generous:  $M = 4.64$ ,  $SD = 1.52$ ; happy:  $M = 5.76$ ,  $SD = 1.48$ ; work hard:  $M = 5.44$ ,  $SD = 1.36$ ;  $F(1, 47) = 8.44$ ,  $p < .05$ ). The interaction of the repeated measures factor with the between-subjects \$15 for textbooks or not was not significant, indicating that the dependent variables worked in a theoretically similar fashion ( $F(2, 94) < 1$ ).

As predicted, this effect was qualified by individual differences in prevention focus. There was an interaction between evaluators' level of prevention focus (continuous) and whether they received the mildly favorable money for textbooks or not ( $F(1, 47) = 5.77$ ,  $p < .05$ ). While the analysis was conducted with prevention focus as a continuous variable, we present the means from a median split for ease of presentation below. As predicted, evaluators who were high on prevention focus were more likely to treat the components of the scholarship as independent and bounded entities, which led them to make judgments that were consistent with an additive pattern, giving relatively equal ratings to the scholarship containing only the tuition credit ( $M = 4.63$ ,  $SD = 1.16$ ) and the scholarship containing both the tuition credit and the textbook money ( $M = 4.80$ ,  $SD = 1.13$ ). In contrast, evaluators who were low on prevention focus showed the usual holistic processing averaging pattern (for tuition credit only:  $M = 5.86$ ,  $SD = .96$ ; for tuition credit + \$15 for textbooks:  $M = 3.67$ ,  $SD = 1.07$ ). Thus, prevention-focused evaluators who are more likely to process information in a piecemeal fashion were more likely to exhibit a pattern that approximated adding than were those who were low on prevention focus.

Results from the presenters condition ( $N = 52$ ) showed that, as expected, there was a correlation between presenters' level of promotion focus and whether they chose to include

the mildly favorable component in the scholarship ( $r = -.26, p < .05$ ). While this analysis was conducted with promotion focus as a continuous variable, we present the percentages based on a median split for ease of presentation below. As predicted, presenters who were high on promotion focus were better at recognizing that the small amount of money may detract from evaluators' impressions of the scholarship as a whole than those who were low on promotion focus. Thirty-three percent (8/24) of participants who were high in promotion focus chose to give only the tuition credit, while only 13% (3/23) of participants who were low on promotion focus did so. Thus, promotion-focused presenters who are more likely to process information in a holistic manner were more likely to recognize averaging than were those low in promotion focus.

In combination with study 5, these findings highlight the crucial role of processing style in the emergence of the Presenter's Paradox: presenters' decisions and evaluators' judgments diverge because presenters follow a piecemeal strategy, whereas evaluators follow a holistic strategy. Our final study takes advantage of this observation and attempts to improve presenters' sensitivity to the evaluators' perspective through explicit debiasing instructions.

## STUDY 7: DEBIASING THE PRESENTER

Studies 5 and 6 implicate holistic and piecemeal processing in the Presenter's Paradox. In study 7, we use this mechanism to test a possible debiasing technique for presenters by investigating whether encouraging presenters to look at the big picture versus individual components of the bundle will help them to intuit the evaluators' perspective. To test this prediction, presenters in study 7 imagined they were applying for a job as a film director. They had made two films in the past, one had received a five-star rating and the other a three-star rating. Presenters were then asked to predict how their prospective employer would evaluate their portfolio. In the piecemeal condition, participants were asked to evaluate their portfolio from the evaluators' perspective by focusing on the individual components of it: they first rated how good their portfolio would look with only the five-star film and then asked how good it would look with both the five-star and three-star one. In the holistic condition participants were asked to evaluate their portfolio from the evaluator's perspective by focusing first on the big picture overall, and then on the individual components: they first rated how good the production company would think their portfolio was if they included both films and only then were they asked to rate how good it would look with only the five-star film. We predicted that the holistic condition would help presenters to better map onto the perspective of evaluators by leading them to focus on the information as a whole. If so, then presenters in the holistic condition should recognize that they would be better off presenting only the top ranked film. Note that support for this prediction would also bolster our conceptual account in terms of differential presenter and evaluator foci.

## Method

A total of 102 participants participated ( $n = 89$  undergraduates from the University of Michigan who completed this study and unrelated others in exchange for \$7–\$9, and  $n = 13$  adults 18 years or older who completed an online version on the website MTurk in exchange for payment). There were no interactions of mode of participation with any of the analyses (all  $F < 1$ ), so this variable will not be discussed further.

Participants read, "Imagine that you are a director working for a film production company and are applying to direct a new drama film. . . . Before soliciting outside applications, the producer in charge of the film asked candidates inside the company to apply. You are the only internal candidate who is applying. The application asks for your portfolio. Portfolios are similar to resumes; candidates list selected films they have directed along with the Film Association Rating each film received. You have directed the films below in the past (five stars = excellent; one star = poor)." Participants saw that they had made a five-star and a three-star film.

Then participants in both conditions were asked the following questions: "If you only include [the five-star film], how favorable do you think the production company will think your portfolio is?" and "If you include both [the five-star and the three-star films] how favorable do you think the production company will think your portfolio is?" (1 = not at all favorable; 7 = very favorable). Participants in the piecemeal condition were asked about the five-star film first and both films second, while those in the holistic condition were asked about both films first and the five-star film only second. Participants in the undergraduate sample then responded to a question asking them whether the three-star film would add or detract to the production company's impression (1 = detract; 7 = add).

## Results and Discussion

There was an interaction between information-processing style (piecemeal versus holistic) and the ratings of the films ( $F(1, 100) = 8.25, p < .01$ ). As predicted, focusing on the films individually led to an adding pattern in evaluations, with participants rating the package with one film as less desirable than that with two films ( $M_{\text{one}} = 6.10, SD = 1.75; M_{\text{two}} = 6.58, SD = 1.01; F(1, 49) = 4.26, p < .05$ ). In contrast, when presenters were encouraged to process the information holistically by looking at the whole package first they showed evidence of an averaging pattern, rating the package with one film as more desirable than that with two films ( $M_{\text{one}} = 7.06, SD = 1.80; M_{\text{two}} = 6.48, SD = 1.20; F(1, 51) = 4.15, p < .05$ ). Responses to the add/detract question showed a similar pattern. Those who focused on the individual pieces thought that the three-star film would add to the producer's evaluation of the ( $M = 4.5, SD = 1.41$ ), while those who looked at the whole package first thought that the three-star film would detract

from the producer's evaluation ( $M = 3.86$ ,  $SD = 1.32$ ;  $F(1, 89) = 4.83$ ,  $p < .05$ ).

*Is Taking the Perspective of the Evaluator Necessary for the Effect?* In the analysis reported above, all participants judged their portfolio from the perspective of the evaluator in addition to completing the holistic or piecemeal manipulation. We conducted a follow-up posttest to determine whether taking the evaluators' perspective was necessary for the holistic manipulation to be effective. Participants either rated how good their portfolio was from the evaluators' perspective or rated how good it was from their own perspective. Results showed that participants' judgments portrayed an averaging-like pattern regardless of whether they took the evaluators' perspective ( $M_{\text{one}} = 6.29$ ,  $SD = 1.50$ ;  $M_{\text{two}} = 5.57$ ,  $SD = .53$ ) or their own perspective ( $M_{\text{one}} = 5.57$ ,  $SD = 1.22$ ;  $M_{\text{two}} = 4.71$ ,  $SD = .73$ ;  $F(1, 19) = 7.0$ ,  $p < .05$ ). There was no interaction of the within subjects variable of ratings of film 1 and films 1 and 2 with perspective ( $F(1, 19) < 1$ ,  $p = .81$ ).

These results buttress the findings of studies 5 and 6 by indicating that the Presenter's Paradox is due to a differential focus on information. Evaluators make their judgments by focusing on the package as a whole. This leads them to blend the different components together into one summary judgment. The presenters' task, however, naturally focuses them on each individual component in the package. This leads presenters to make inclusion choices that reflect an additive pattern when presenting information. Importantly, however, manipulations that lead presenters to focus on the whole picture enable presenters to better intuit evaluator's judgments.

## GENERAL DISCUSSION

The present analysis introduced the *Presenter's Paradox*: presenters fail to anticipate the information-processing mind-set of evaluators and, as a consequence, design presentations that thwart their intentions. When considering which information to include in a presentation, presenters follow a "more is better" rule that results in an additive pattern. They assume that every favorable piece of information adds to their overall case and hence include it in the bundle they present. Unfortunately, presenters fail to recognize that the holistic information-processing mind-set of evaluators leads them to make judgments that result in an averaging pattern, under which the addition of mildly favorable information dilutes the impact of highly favorable information. Hence, presenters' more-is-better strategy backfires, and they would be better off if they limited their presentation to their most favorable information.

Across seven studies we showed that this paradox is highly robust and of obvious practical importance not only to marketing but also to a wide array of other fields in which presentations are important such as the law, negotiation, and public policy. Study 1 showed that participants taking the role of a person creating packages for an MP3 music player chose to spend more money in an effort to make the package

look more valuable, even though doing so actually cheapened its perceived value from the consumer's perspective. In study 2, participants taking the perspective of a hotel owner estimated their rooms to be worth more when they featured both a five-star and a three-star amenity, while people taking the role of prospective customers felt the opposite—they gave higher willingness to pay judgments when only the five-star amenity was featured in the advertisement. Study 3 extended the examination to negative information and, like study 1, ruled out an "inferencing" explanation for the results by showing that the misprediction persists in situations where the components of the bundle do not bear on one another. Study 4 showed that the divergence not only occurs when the bundle comprises non-alignable attributes that are described along different dimensions (e.g., a monetary component such as a fine and a time component such as community service), but also when it is composed of alignable attributes that are described along the same dimension (i.e., both described in terms of monetary value).

Studies 5–7 illuminate the psychological processes underlying the judgmental differences. In doing so, they introduce the investigation of psychological process to the literature on combinatorial models—a literature that, despite its wide-ranging influence on the study of attitudes and information processing, has remained largely descriptive and has previously explicated process only to a very limited extent (Eagly and Chaiken 1993; Simonson, Carmon, and O'Curry 1994). Specifically, study 5 experimentally manipulated holistic and piecemeal processing and showed that when evaluators and presenters were induced to process holistically they showed a pattern that resembled averaging; conversely, when the two roles were induced to process in a piecemeal fashion they showed a pattern that more closely resembled adding. Study 6 extended the finding to show that an individual differences variable that past work has associated with holistic and piecemeal processing—regulatory focus—moderates the results in a way similar to the experimental manipulation of those constructs. Finally, study 7 examined a debiasing manipulation and showed that when presenters were prompted to consider the big picture, they were better able to intuit evaluators' judgments. Thus, the results of three separate studies, each using a different methodology in order to obtain convergent validity, arrived at the same conclusion: the disconnect arises because the presenter's focus is on the individual components of the bundle, leading to a piecemeal processing strategy, whereas evaluators' focus is on forming an impression of the bundle as a whole, leading to holistic processing and a focus on the overall gestalt.

While previous research in consumer behavior has demonstrated that people's judgments reflect an averaging pattern in decision making (Gaeth et al. 1990; Yadav 1994), this past work has focused solely on the evaluator's perspective. The current studies thus address a significant gap in the literature by demonstrating that people in presentational roles fail to anticipate evaluators' information-pro-

cessing mind-set and instead make presentation decisions that are consistent with the assumption of an additive model. This question has not been addressed in previous research, despite its implications across many domains in consumer research and beyond.

### Connections to Related Literature

*Relationship to the Dilution Effect.* Our results for the evaluator condition bear resemblance to the findings shown in the literature on the dilution effect (Meyvis and Janiszewski 2002; Nisbett, Zukier, and Lemley 1981; Tetlock, Lerner, and Boettger 1996). Specifically, in both our studies and in studies on the dilution effect, highly polarized (i.e., highly favorable or highly unfavorable) information becomes watered down by additional information in people's overall judgments. For instance, in our study 4, students judged a scholarship containing a large tuition credit (\$1,750) and a mildly favorable textbook allotment (\$15) as less generous than a scholarship comprised of the tuition credit only. In a study on the dilution effect, participants tried to predict a student's GPA based on various pieces of information. Participants who were given a combination of diagnostic (e.g., He studies 31 hours a week) and nondiagnostic (e.g., He plays tennis or racquetball 3–4 times a month) information predicted the student's GPA to be lower than those seeing the diagnostic information alone (Kemmelmeier 2004; Tetlock and Boettger 1989; Tetlock et al. 1996). Indeed, in their original article on the topic, Nisbett et al. (1981) described the dilution effect as a subset of the averaging effect. Our studies significantly advance our theoretical and practical understanding in both literatures because the side of the presenter has not been studied previously in either. However, it is interesting to note that the presenter's side of the coin may operate differently in each. While the dilution literature specifically studies irrelevant information, "information that was selected for its manifest irrelevance to the behaviors to be predicted" (Nisbett et al. 1981, 252), the current studies focus on mildly favorable information—information that any economist would agree would add value to the package. So, while presenters in our studies included mildly favorable information because they think it will improve their case, it is possible that presenters in a dilution effect situation would recognize that including "manifestly irrelevant" information (e.g., offering the information that one plays tennis or racquetball 3–4 times a month if one is trying to convince another that she has a high GPA) in their presentations will not help their argument. Preliminary research from our laboratory confirms this prediction.

*Negative Effect of Sales Promotions on Brand Choice.* The current research also adds to the literature on "less is more" effects in consumer behavior (see, e.g., Simonson et al. 1994), which addressed how consumers react to the inclusion of unwanted or unneeded product features and enhancements. Simonson and colleagues (1994) demonstrated, for instance, that the opportunity to purchase a Pillsbury

Doughboy collector's plate for \$5.95 plus shipping and handling (a promotion in which most consumers were not interested) reduced the percentage of people desiring to purchase a package of Pillsbury brownie cake mix. Interestingly, their results showed that the premium did not reduce consumers' perceptions of the brand's value, but rather that consumers felt that the product with the premium was more difficult to justify and more susceptible to criticism than the product without the premium.

In contrast, our studies examined the addition of mildly favorable features that are directly relevant to the product bundle to be evaluated (e.g., a music download bundled with an MP3 player, money for books for students). Much like the addition of unwanted features (Simonson et al. 1994) the addition of mildly favorable features reduces consumers' interest in the product; however, it does so through different pathways. Whereas the addition of unwanted features makes it more difficult for consumers to justify their choice without affecting the product's perceived value (Simonson et al. 1994), the addition of mildly favorable features reduces the perceived value of the product (current studies).

*Aggregating Losses and Segregating Gains.* The results of the present studies seem to be at odds with the literature on aggregating losses and segregating gains (see Liu and Soman 2008 for a review). In our study 4, for instance, dividing a scholarship into separate components of tuition dollars and textbook money reduced rather than increased evaluators' happiness. When evaluators were induced to process the same information in a piecemeal fashion, on the other hand, the reduction in happiness was attenuated and there was a nonsignificant increase in happiness when the two components were presented. This pattern suggests that the information-processing mode with which the perceiver approaches the decision situation (holistic versus piecemeal) affects whether the components of a given package will be integrated and perceived as one unit (i.e., with holistic processing) or segregated and perceived as separate (i.e., with piecemeal processing). Along these lines, one may ask when else will mildly supportive information help. Perhaps mildly supportive information becomes helpful when it is bracketed off as additional reasons for the message at hand (Read, Loewenstein, and Rabin 1999). Perhaps the temporal sequence matters. Presenting mildly supportive information at time 1, followed by the strongly supportive information at time 2, might produce a "foot-in-the-door" effect (Cialdini 2008), whereas presenting the mildly supportive information at time 2 could be used to convert an almost convinced prospect into a fully convinced individual.

*Choice versus Judgment.* The Presenter's Paradox also contributes to the literature on choice versus judgment (see, e.g., Nowlis and Simonson 1996; Tversky et al. 1988). In studies 1–4, for example, our presenter/evaluator manipulations were designed to reflect the real world tasks that presenters and evaluators perform in the marketplace—presenters chose what information to include in their package, while evaluators judged the package presented. Classic ar-

ticles comparing choice and judgment generally show that choice tends to be more lexicographic than judgment (Tversky et al. 1988). If so, then presenters should use less information rather than more information when compared to evaluators. Interestingly, this finding is in contrast to what we find in our studies, where it is presenters that use more information than evaluators. Studies 5–7 broaden our theoretical understanding of the Presenter's Paradox beyond choice versus judgment by demonstrating that it is the mind-set of the two roles, rather than the act of choosing or judging per se, that drives the processing differences. While presenters require a relatively close-minded mind-set to accomplish their communication goals, evaluators require a relatively flexible, open-minded mind-set to accomplish their evaluation goals (see, e.g., Zajonc 1960). Studies 5–7 suggest that it is these divergent mind-sets rather than the type of task (choice versus judgment per se) they perform that affect presenters' and evaluators' choices and judgments. For instance, when a situational manipulation encouraged presenters to process information holistically, they were more likely to recognize averaging and thus were more apt to exclude mildly favorable information from their choices. In contrast, when a situational manipulation encouraged presenters performing the identical task to process information in a piecemeal fashion, they were more likely to assume an additive strategy on the part of evaluators and thus were more apt to include mildly favorable information in their choices. We saw a similar reversal as a function of manipulated information-processing mode among evaluators. Evaluators encouraged to process in a holistic fashion averaged, while those encouraged to process the identical task in a piecemeal manner added. Thus, the same choice or evaluation task produced opposite results depending on the processing mode utilized.

### Future Research Directions

One question for future research is at what stage in the presentational sequence does the failure of prediction occur? One possibility is that presenters are myopic. If presenters operate under the assumption that evaluators will see the information exactly as they do, it may not even cross their minds to try and look at it through evaluators' eyes, as individuals typically only consider a fraction of the possible representations in the inferential process (Arkes et al. 1988). Another possibility is that the failure of prediction occurs further along in the presentational sequence; presenters may attempt to take the perspective of evaluators but may inadvertently project their own construal onto evaluators. Future research may attempt to disentangle these two possibilities.

Another future direction that may be interesting to explore in more detail is whether other aspects of presenters' and evaluators' roles may also contribute to their judgment. In the present analysis, we argue that presenters' piecemeal information processing is due to situated cognition arising from the task that they face. That is, creating a presentation from the bottom up naturally leads the presenter to focus

on each individual piece of information as a discrete entity. To the extent that the presenter's task leads them to process in such a piecemeal or analytic manner, a simple piecemeal decision rule could thus be applied, in line with the general principle of compatibility in decision making (Shafir 1993; Slovic et al. 1990; Tversky et al. 1988). If a given piece of information is good (i.e., is better than neutral), the presenter will conclude that it is compatible with the message he or she seeks to convey, which leads to an additive pattern. It is possible that factors in addition to the nature of the task per se may also contribute to the presenters' piecemeal processing. For instance, perhaps the fact that presenters need to predict what others think could contribute to their use of a more bottom up, analytic processing style whereas the fact that evaluators' main goal is to express their own preferences could contribute to their tendency to make holistic judgments. While the posttest of study 7 suggests that differences in task overwhelm perspective differences when the two are juxtaposed at least in the case of the presenter, it may nevertheless be interesting to examine this possibility more closely in future research.

A further direction may also be to consider whether and how standards play a part in presenters' and evaluators' judgments. That is, evaluators may have an ideal reference point in mind when making their judgments, which the mildly favorable component disrupts. In contrast, presenters may focus more on the practicality of what they have that can be included in the bundle. Such an ideal reference point could act as a standard that imbues the mildly favorable component with meaning and leads to averaging. Although this account would not explain the effects of piecemeal and holistic manipulations in our studies, it is nevertheless possible that it contributes, in conjunction with other factors, to the difference in how positively the evaluator and presenter view the same presentation. Finally, future research should also consider social factors that might influence or interact with these cognitive processes. For instance, people who are highly self-conscious are more prone to view themselves through the eyes of others (Garcia et al. 2009). Could their predisposition to consider others' perspectives actually mitigate the occurrence of the Presenter's Paradox? Another interesting factor to consider is culture. Compared to Western cultures, Eastern cultures are more likely to process information holistically (Miyamoto, Nisbett, and Masuda 2006). Accordingly, are people from Eastern cultures less likely to exhibit the Presenter's Paradox?

### CONCLUSION

In sum, the discovery of the Presenter's Paradox advances our understanding of how to best present information, a perennially important task for both consumers in their everyday lives as well as marketing practitioners in their professional ones. Whether a public relations expert is deciding which reviews to include on the jacket of a popular press book, a guru at a record label is deciding which songs to include in a music album, or a legal team is building up arguments for a legal case, we all face the important task

of deciding what information to include in our presentations. However, the present analysis suggests that we often inadvertently dilute the very message we seek to convey simply by our efforts to strengthen it.

## REFERENCES

- Anderson, Norman H. (1965), "Averaging versus Adding as a Stimulus-Combination Rule in Impression Formation," *Journal of Experimental Psychology*, 70 (4), 394–400.
- Anderson, Norman H. (1968), "Application of a Linear Serial Model to a Personality-Impression Task Using Serial Presentation," *Journal of Personality and Social Psychology*, 10 (4), 354–62.
- (1981), *Foundations of Information Integration Theory*, New York: Academic Press.
- Arkes, Hal R., David D. Faust, Thomas J. Guilmette, and Kathleen Hart (1988), "Eliminating the Hindsight Bias," *Journal of Applied Psychology*, 73 (2), 305–7.
- Asch, Solomon (1952), *Social Psychology*, Englewood Cliffs, NJ: Prentice Hall.
- Burson, Katherine A., David Faro, and Yuval Rottenstreich (2010), "ABCs of Principal-Agent Interactions: Accurate Predictions, Biased Processes and Contrasts between Working and Delegating," *Organizational Behavior and Human Decision Processes*, 113 (1), 1–12.
- Cialdini, Robert B. (2008), *Influence: Science and Practice*, Englewood Cliffs, NJ: Prentice Hall.
- Corneille, Olivier, and Charles M. Judd (1999), "Accentuation and Sensitization Effects in the Categorization of Multifaceted Stimuli," *Journal of Personality and Social Psychology*, 77 (5), 927–41.
- Eagly, Alice H., and Shelly Chaiken (1993), *The Psychology of Attitudes*, Forth Worth, TX: Harcourt Brace Jovanovich.
- Ehrlinger, Joyce, Thomas Gilovich, and Lee Ross (2005), "Peering into the Bias Blind Spot: People's Assessments of Bias in Themselves and Others," *Personality and Social Psychology Bulletin*, 31 (5), 680–92.
- Fiske, Susan T., and Shelley E. Taylor (1991), *Social Cognition*, 2nd ed., New York: Random House.
- Forster, Jens, and E. Tory Higgins (2005), "How Global versus Local Perception Fits Regulatory Focus," *Psychological Science*, 16 (8), 631–36.
- Gaeth, Gary J., Irwin P. Levin, Goutam Chakraborty, and Aron M. Levin (1990), "Consumer Evaluation of Multi-product Bundles: An Information Integration Analysis," *Marketing Letters*, 2 (January), 47–58.
- Garcia, Stephen M., Kimberlee Weaver, John M. Darley, and Bryan T. Spence (2009), "Dual Effects of Implicit Bystanders: Diffusing vs. Facilitating Helping Behavior," *Journal of Consumer Psychology*, 19 (2), 215–24.
- Gershoff, Andrew, and Gita V. Johar (2006), "Do You Know Me? Consumer Calibration of Friends' Knowledge," *Journal of Consumer Research*, 32 (March), 496–503.
- Gilovich, Thomas, Victoria H. Medvec, and Kenneth Savitsky (2000), "The Spotlight Effect in Social Judgment: An Ego-centric Bias in Estimates of the Salience of One's Own Actions and Appearance," *Journal of Personality and Social Psychology*, 78, (2), 211–22.
- Guiltinan, Joseph P. (1987), "The Price Bundling of Services: A Normative Framework," *Journal of Marketing*, 51 (April), 74–85.
- Hamilton, David L., Lawrence B. Katz, and Von O. Leirer (1980), "Cognitive Representation of Personality Impressions: Organizational Processes in First Impression Formation," *Journal of Personality and Social Psychology*, 39 (6), 1050–63.
- Hamilton, Rebecca, and Nevena Koukova (2008), "Choosing Options for Products: The Effects of Mixed Bundling on Consumers' Inferences and Choices," *Journal of the Academy of Marketing Science*, 36 (3), 423–33.
- Higgins, E. Tory, Ronald S. Friedman, Robert E. Harlow, Lorraine Chen Idson, Ozlem N. Ayduk, and Amy Taylor (2001), "Achievement Orientations from Subjective Histories of Success: Promotion Pride versus Prevention Pride," *European Journal of Social Psychology*, 31 (1), 3–23.
- Ichheiser, Gustav (1949), "Misunderstandings in Human Relations: A Study in False Social Perception," *American Journal of Sociology*, 55 (Part 2), 1–70.
- James, William (1890), *The Principles of Psychology*, New York: Holt.
- Jones, Edward E., and Richard E. Nisbett (1971), *The Actor and the Observer: Divergent Perceptions of the Causes of Behavior*, New York: General Learning.
- Kemmelmeier, Markus (2004), "Separating the Wheat from the Chaff: Does Discriminating between Diagnostic and Nondiagnostic Information Eliminate the Dilution Effect?" *Journal of Behavioral Decision Making*, 17 (3), 231–43.
- Lee, Angela Y., Jennifer Aaker, and Wendi Gardner (2000), "The Pleasures and Pains of Distinct Self-Construals: The Role of Interdependence in Regulatory Focus," *Journal of Personality and Social Psychology*, 78 (6), 1122–34.
- Lee, Angela Y., Punam A. Keller, and Brian Sternthal (2010), "Value from Regulatory Construal Fit: The Persuasive Impact of Fit between Consumer Goals and Message Concreteness," *Journal of Consumer Research*, 36 (5), 735–47.
- Liu, Maggie, and Dilip Soman (2008), "Behavioral Pricing," in *The Handbook of Consumer Psychology*, ed. Curtis P. Haugtvedt, Paul M. Herr, and Frank R. Kardes, New York: Erlbaum, 658–81.
- Mantel, Susan Powell, and Frank R. Kardes (1999), "The Role of Direction of Comparison, Attribute-Based Processing, and Attitude-Based Processing in Consumer Preference," *Journal of Consumer Research*, 25 (March), 335–52.
- Meyvis, Tom, and Chris Janiszewski (2002), "Consumers' Beliefs about Product Benefits: The Effect of Obviously Irrelevant Product Information," *Journal of Consumer Research*, 28 (March), 618–35.
- Miyamoto, Yuri, Richard E. Nisbett, and Takahiko Masuda (2006), "Culture and the Physical Environment: Holistic versus Analytic Perceptual Affordances," *Psychological Science*, 17 (2), 113–19.
- Monga, Alokparna Basu, and Deborah Roedder John (2007), "Cultural Differences in Brand Extension Evaluation: The Influence of Analytic versus Holistic Thinking," *Journal of Consumer Research*, 33 (March), 529–36.
- Moskowitz, Gordon B. (2001), *Cognitive Social Psychology: The Princeton Symposium on the Legacy and Future of Social Cognition*, Mahwah, NJ: Erlbaum.
- Nisbett, Richard E., Kaiping Peng, Incheol Choi, and Ara Norenzayan (2001), "Culture and Systems of Thought: Holistic versus Analytic Cognition," *Psychological Review*, 108 (2), 291–310.
- Nisbett, Richard E., Henry Zukier, and Ronald E. Lemley (1981), "The Dilution Effect: Nondiagnostic Information Weakens the Implications of Diagnostic Information," *Cognitive Psychology*, 13 (April), 248–77.

- Norton, Michael I., Jeana H. Frost, and Dan Ariely (2007), "Less Is More: The Lure of Ambiguity, or Why Familiarity Breeds Contempt," *Journal of Personality and Social Psychology*, 92 (1), 97–105.
- Nowlis, Stephen M., and Itamar Simonson (1996), "The Effect of New Product Features on Brand Choice," *Journal of Marketing Research* 33 (1), 36–46.
- Pham, Michel T., and Hannah H. Chang (2010), "Regulatory Focus, Regulatory Fit, and the Search and Consideration of Choice Alternatives," *Journal of Consumer Research*, 37 (December), 626–40.
- Pronin, Emily, Thomas Gilovich, and Lee Ross (2004), "Objectivity in the Eye of the Beholder: Divergent Perceptions of Bias in Self versus Others," *Psychological Review*, 111 (3), 781–99.
- Read, Daniel, George Loewenstein, and Michael Rabin (1999), "Choice Bracketing," *Journal of Risk and Uncertainty*, 19 (December), 171–97.
- Schwarz, Norbert (2006), "Feelings, Fit, and Funny Effects: A Situated Cognition Perspective," *Journal of Marketing Research*, 43 (1), 20–23.
- Shafir, Eldar (1993), "Choosing versus Rejecting: Why Some Options Are Both Better and Worse than Others," *Memory and Cognition*, 21 (4), 546–56.
- Simonson, Itamar, Ziv Carmon, and Suzanne O'Curry (1994), "Experimental Evidence on the Negative Effect of Product Features and Sales Promotions on Brand Choice," *Marketing Science*, 13 (Winter), 23–40.
- Slovic, Paul, Dale Griffin, and Amos Tversky (1990), "Compatibility Effects in Judgment and Choice," in *Insights in Decision Making: A Tribute to Hillel J. Einhorn*, ed. Robin M. Hogarth, Chicago: University of Chicago Press, 5–27.
- Smith, Elliot R., and Gün R. Semin (2004), "Socially Situated Cognition: Cognition in its Social Context," in *Advances in Experimental Social Psychology*, Vol. 36, ed. Mark P. Zanna, San Diego: Elsevier Academic, 53–117.
- Srivastava, Joydeep, and Priya Raghbir (2002), "Debiasing Using Decomposition: The Case of Memory-Based Credit Card Expense Estimates," *Journal of Consumer Psychology*, 12 (3), 253–64.
- Tetlock, Philip E., and Richard Boettger (1989), "Accountability: A Social Magnifier of the Dilution Effect," *Journal of Personality and Social Psychology*, 57 (3), 388–98.
- Tetlock, Philip E., Jennifer S. Lerner, and Richard Boettger (1996), "The Dilution Effect: Judgmental Bias, Conversational Convention, or a Bit of Both?" *European Journal of Social Psychology*, 26 (November/December), 915–34.
- Troutman, Michael C., and James Shanteau (1976), "Do Consumers Evaluate Products by Adding or Averaging Attribute Information?" *Journal of Consumer Research*, 3 (September), 101–6.
- Tversky, Amos, Shmuel Sattath, and Paul Slovic (1988), "Contingent Weighting in Judgment and Choice," *Psychological Review*, 95 (3), 371–84.
- Yadav, Manjit S. (1994), "How Buyers Evaluate Product Bundles: A Model of Anchoring and Adjustment," *Journal of Consumer Research*, 21 (September), 342–53.
- Zajonc, R. B. (1960), "The Process of Cognitive Tuning in Communication," *Journal of Abnormal and Social Psychology*, 61 (September), 159–67.
- Zhu, Rui, and Joan Meyers-Levy (2007), "Exploring the Cognitive Mechanism that Underlies Regulatory Focus Effects," *Journal of Consumer Research*, 34 (June), 89–96.