

Puffery in Advertisements: The Effects of Media Context, Communication Norms, and Consumer Knowledge

ALISON JING XU
ROBERT S. WYER JR.

Ads often contain puffery—product descriptions that purport to be important but actually provide little if any meaningful information. Consumers' reactions to these descriptions depend on whether they perceive themselves to be more or less knowledgeable about the product than others whom the ad is specifically intended to influence. When an ad appears in a professional magazine that is read primarily by experts in the product domain, puffery generally increases the ad's effectiveness. This is also true when the ad appears in a popular magazine but readers perceive themselves to know less about the product than consumers at large. If readers believe they know as much as or more than general consumers, however, puffery decreases the ad's effectiveness. In addition, the media context in which an ad is encountered has a direct effect on judgments by consumers who perceive themselves to have little knowledge about the type of product being advertised.

On January 23, 2008, a lawsuit was filed against Dannon for its potentially misleading advertising claims for two product lines—Activia and DanActive (Adweek 2008). Ads for Activia claimed that it was the only probiotic yogurt containing “Bifidus Regularis,” which was “clinically proven” to regulate the digestive system. Ads for DanActive prominently promoted its unique “L.casei Immunitas bacteria” that “has been clinically proven to help naturally strengthen the body’s defenses.” The plaintiffs argued that these claims had never been confirmed by scientific research and that one report released by the American Academy of Microbiology stated: “At present, the quality of probiotics available to consumers in food products around the world is unreliable” (Dannon Activia Lawsuit 2008; Harvard Health Publications 2009). Nevertheless, the claims for Activia Probiotic Yogurt were promoted not only on television but also in professional

magazines, such as *Dairy Field* and *Dairy Foods*, which are primarily read by processors and suppliers in the dairy food industry.

Dannon is not alone in using promotional materials that consumers do not understand. In some cases, advertisements describe technical details that are only appreciated by experts in the product domain to which the ads pertain. Other attribute descriptions, however, may be “puffery.” That is, they purport to be of great importance but are actually inconsequential and often meaningless. Although these latter descriptions have no actual implications for the quality of the product being advertised, they can nevertheless have an impact on consumers’ evaluations of it.

The nature of this impact is not completely clear, however. Carpenter, Glazer, and Nakamoto (1994), for example, found that irrelevant attribute descriptions (e.g., “Alpine class” down fill) increased consumers’ evaluations of a down jacket if they distinguished the jacket from the products made by competitors. Other studies, however, have found that providing irrelevant product information can decrease evaluations of a product’s effectiveness (Meyvis and Janiszewski 2002; Simonson, Carmon, and O’Curry 1994). The present research provides insight into the nature of these apparently inconsistent effects and why they occur.

Although puffery could have an influence for many reasons (Broniarczyk and Gershoff 2003; Brown and Carpenter 2000; for a review, see Kardes, Posavac, and Cronley [2004]), its impact can often be traced to consumers’ tendency to interpret product information in a manner that is

Alison Jing Xu is an assistant professor in the Department of Management, University of Toronto, 1265 Military Drive, Scarborough, ON, M1C 1A4, Canada (jingxu@utsc.utoronto.ca). Robert S. Wyer Jr. is a professor in the Department of Business Administration, University of Illinois at Urbana-Champaign. This research was supported in part by grants HKUST6053/01H, HKUST6194/04H, and HKUST6192/04H from the Research Grants Council, Hong Kong. The authors wish to thank the editor, the associate editor, and three reviewers for their helpful comments. Correspondence should be sent to Alison Jing Xu.

John Deighton served as editor and Frank Kardes served as associate editor for this article.

Electronically published February 8, 2010

consistent with normative principles of social communication (Grice 1975; Sperber and Wilson 1986; for applications of this principle on conceptualizing responses to advertising information, see Hung and Wyer [2008] and Johar [1995]). For example, communications are normally intended to provide new and relevant information that the recipient does not already have, and recipients spontaneously apply this principle when they first encounter a message and try to interpret it. If consumers assume that advertisements conform to this principle, they may infer that the presence of puffery in the ad is intended to provide important information even though they do not personally understand its implications.

However, an additional, domain-specific normative principle can sometimes be invoked as well. That is, advertisements are intended to persuade recipients to purchase the product being advertised (Campbell and Kirmani 2008; Friestad and Wright 1994, 1995). Persuasiveness and informativeness are not necessarily incompatible. That is, an ad can be persuasive by providing new and useful information about a product's desirable attributes and consumers may perceive this persuasion approach to be legitimate. In this case, persuasion may be effective (Sagarin et al. 2002). However, if consumers perceive that an advertisement is intended only to persuade them and not to inform them, they may question the legitimacy of the persuasive communication. As a result, they are likely to resist being influenced by it, and so the ad will have little effect (Papageorgis 1968; Petty and Cacioppo 1979). In fact, it might induce reactance (Brehm 1966) and have a negative, boomerang effect on product evaluations (Campbell and Kirmani 2008).

We took these principles into account in conceptualizing the impact of puffery on consumers' reactions to a print ad. In doing so, we considered the combined effects of two factors: (a) consumers' perception of their knowledge about the type of product being advertised relative to others whom the ad was intended to influence and (b) the media context in which the ad is encountered. We assumed that these factors would have interactive effects on perceptions of the implications of puffery and, therefore, on the impact of ads that contained it. The nature of these effects is elaborated in the section to follow.

THEORETICAL BACKGROUND

The Impact of Puffery on Choice and Evaluation

Many characteristics of a product description (e.g., relevance, ambiguity, triviality, validity, etc.) can influence its informativeness (for a review, see Shimp and Preston [1981]). However, its informativeness also depends on the knowledge of the recipient. Some descriptions (e.g., "Brand X toothpaste cleans the teeth") are self-evident to everyone. Others provide technical details that would only be informative to people with specialized knowledge about the type of product being promoted. Puffery, however, differs from each of these types. Although puffery (e.g., "Alpine class" down fill) purports to convey new and important informa-

tion, its actual implications are unclear to experts and novices alike.

Some research suggests that, when information about a product is clearly irrelevant to an evaluation of its quality, it can have a negative effect on this evaluation (Meyvis and Janiszewski 2002; Simonson et al. 1994). Participants in this research may have inferred that the irrelevant information was intended only to persuade them to buy the product rather than to inform them about its quality, and so they reacted negatively to it. In many cases, however, consumers experience difficulty distinguishing between relevant and irrelevant product information (Hutchinson and Alba 1991). Carpenter et al. (1994), for example, found that a brand was judged more favorably when it was distinguished from other products by an irrelevant attribute. The interpretation of such an attribute can also depend in part on its context. For example, the value that consumers assign to objectively irrelevant attributes may increase with the price of the product (Carpenter et al. 1994) or brand equity (Broniarczyk and Gershoff 2003).

When attribute descriptions are ambiguous, consumers could interpret them in two ways. On the one hand, they could infer that the attributes refer to technical details that they personally do not understand but that are likely to be informative to those persons who are more knowledgeable than they are. On the other hand, they could view the attribute descriptions as objectively irrelevant (i.e., puffery) and as intended only to persuade. Which reaction they have may depend in part on the media context in which the ad is encountered (e.g., the type of magazine in which the ad is found).

General Principles of Communication

Recipients of a communication typically assume that the communicator intends to convey new and relevant information (Grice 1975; Higgins 1981; Schwarz 1994, 1996). Therefore, if they believe that the message's literal meaning conveys such information, they may accept its implications without questioning its validity (Wyer 2004; but for a contingency, see Anand and Sternthal [1988] and Hung and Wyer [2008]).

In some cases, however, a communication may appear to violate the informativeness principle. This can occur either if (a) the communication is redundant with what the recipient already knows or (b) its literal meaning is unclear. In this event, recipients who assume that the communicator wishes to be informative may try to construe the message's intended meaning (Wyer and Gruenfeld 1995). For example, suppose an advertisement asserts that "Brand X contains hydratropine." Recipients have no idea what hydratropine is. If they assume that the statement is intended to provide new (and presumably favorable) information about the product, they may infer that hydratropine is desirable and that other products do not have it. By the same token, the equally meaningless assertion "X contains no hydratropine" might stimulate recipients to infer that hydratropine is undesirable and that other brands do have it (Wyer 2004).

Source-Specific Communication Principles

The communication axioms proposed by Grice (1975) are theoretically applied spontaneously in interpreting communications in general. However, other principles concerning a communicator's intentions are specific to the context in which the communication is encountered. When a communication appears to violate the more general principles of communication proposed by Grice, recipients may invoke these context-specific principles in an attempt to construe an intended meaning. This meaning, in turn, may be influenced by the communicator's ostensible objectives (for reviews of the effects of sources' communication goals on the impact of a message, see Chaiken and Maheswaran [1994] and Johnson, Maio, and Smith-McLallen [2005]).

A study by Gruenfeld and Wyer (1992) exemplifies this contingency. Participants read a series of statements, some of which asserted the validity of a proposition that they already assumed to be true. When the statements were ostensibly taken from a newspaper, participants assumed that they were intended to convey new information and reinterpreted their implications in a way that made the statements informative. When the same statements were ostensibly taken from an encyclopedia, however, participants assumed that their purpose was simply to record archival knowledge. Consequently, similar effects did not occur.

A different principle comes into play in the case of advertisements. Ads are intended to persuade. If consumers who read an advertisement invoke this principle, they are likely to question the ad's implications. As already noted, the intention to inform and the intention to persuade are not incompatible. If consumers perceive that an ad is attempting to persuade by providing new information about the product it is promoting, they may consider the persuasive attempt to be legitimate. However, this is not always the case.

Suppose the ad contains puffery descriptions that consumers may not understand. Because the informativeness principle seems to be violated, consumers may invoke the more specific principle that ads are intended to persuade. In some cases, they may infer that the ad content is intended to persuade by providing new and important information about the product but that they personally do not have sufficient knowledge to appreciate its implications. In such cases, the puffery could have a positive influence on their evaluations of the product. However, suppose consumers infer that the product descriptions are intended only to persuade and not to inform. Then, they may experience reactance because they perceive the persuasion to be illegitimate (Brehm 1966). That is, they may react negatively to the puffery and evaluate the product less favorably than they otherwise would have done (Campbell and Kirmani 2008; Papageorgis 1968; Petty and Cacioppo 1979).

Perceptions of Persuasive Intent

The preceding considerations suggest that the effect of using puffery in an ad will depend on whether recipients perceive that it is intended to be informative or only to

persuade. What determines these perceptions? An obvious factor is the trustworthiness or credibility of the advertiser. If the manufacturer is well known to produce inferior products or if consumers have other reasons to believe the ad is deceptive, they may assume a priori that the ad is likely to be misleading. This assumption might lead them to question the credibility of all product attributes regardless of whether they can understand them. Thus, they may generally invoke their persuasion knowledge and react negatively to both the ad and the product it promotes.

When consumers have no a priori basis for questioning the credibility of the advertiser, however, their reactions to puffery may depend on other factors. Of particular importance may be the extent to which consumers believe they know more or less about the type of product than others whom the ad is designed to influence. Suppose consumers perceive themselves to be less knowledgeable about the product than the intended recipients. In this case, they are likely to assume that the puffery conveys useful information to these recipients even if they do not understand its implications themselves. In contrast, suppose consumers believe they know as much or more about the product than the persons to whom the ad is directed. Then, they may believe that product descriptions whose implications they cannot understand are unlikely to be understood by anyone. In this event, therefore, they are likely to conclude that the descriptions are intended only to persuade, and they may react negatively to them (Petty and Cacioppo 1979). Consequently, they may be less influenced by the ad than they would have been if the descriptions had not been provided. To formalize:

- H1:** If consumers perceive themselves to know less about an advertised product than the individuals to whom an ad is primarily directed, the addition of puffery to the ad will increase their evaluations of the product.
- H2:** If consumers perceive themselves to know as much or more about an advertised product than the individuals to whom an ad is primarily directed, the addition of puffery to the ad will decrease their evaluations of the product.

We considered two factors in evaluating these hypotheses. First, the ad was allegedly taken from either (a) a professional magazine that was read primarily by experts in the area to which the product pertained or (b) a popular magazine that was read by the general public. Second, we manipulated participants' perception of their knowledge about the product category relative to that of average consumers. This was done in two ways. In experiment 1, we asked participants to evaluate products with which they were more or less familiar on a priori grounds. In experiment 2, we directly manipulated participants' perceptions of their relative knowledge about the product by giving them feedback on a knowledge test.

All participants in our research (college students) were likely to consider themselves to be less knowledgeable than

TABLE 1
PRETESTS OF PRODUCT KNOWLEDGE

	Male	Female	Difference
Reported knowledge:			
Cleansing gel	4.07	6.33	-2.26*
Beer	5.39	3.26	2.13*
Frequency of use:			
Cleansing gel	2.48	4.21	-1.73*
Beer	2.71	1.92	.79*
Number of known brands:			
Cleansing gel	1.25	4.59	-3.34*
Beer	4.46	3.51	.95*
Product knowledge relative to general public:			
Cleansing gel	-.80	.90	-1.70*
Beer	.86	-1.51	2.37*
Product knowledge relative to experts:			
Cleansing gel	-2.73	-.76	-1.97*
Beer	-1.90	-3.37	1.47*

NOTE.—Estimates of knowledge are reported on a scale from 0 (not at all knowledgeable) to 10 (extremely knowledgeable). Frequency of use is reported on a scale from 1 (never) to 5 (very often). Estimates of relative knowledge are reported on a scale from -5 (less knowledgeable) to 5 (more knowledgeable).

* $p < .01$.

experts about the products we considered. Thus, they were expected to perceive that an ad from a professional magazine would provide information that experts would find useful. To this extent, inserting puffery into the ad should have a positive effect on their product evaluations, as implied by hypothesis 1. When the ad is taken from a popular magazine, however, this should only be true if participants believe they are less knowledgeable about the product than other consumers in the general population. Suppose participants perceive that they know as much or more about the type of product being advertised than consumers in general. Then, they are likely to infer that product descriptions whose implications they do not personally understand would not be understood by anyone and are intended only to persuade. In this case, the descriptions should decrease their evaluations of the product, as implied by hypothesis 2 (Papageorgis 1968; Petty and Cacioppo 1979).

Further Considerations

The effects of the media context of an ad on the interpretation of puffery should be distinguished from its effects that are independent of the type of information conveyed. We noted earlier that the effect of an advertisement, like that of communications in general, can depend on perceptions of the credibility of its source. The source of an advertisement is the agency that constructs it and not the context in which it is encountered. It nevertheless seems likely that consumers' perception of the credibility of the information contained in a magazine as a whole will generalize to the advertisements contained in it. Then, if consumers perceive a professional magazine to be a generally credible source of information, they may be more persuaded by the ads contained in it than by ads that are found in a popular magazine. Moreover, this may be particularly true when

consumers perceive that they have relatively little knowledge about the type of product being advertised. This tendency could occur independently of any effect that the ad's context might have on the interpretation of its content. In addition to confirming the influence of media context and participants' relative knowledge about the product on their interpretation of puffery, we obtained evidence of these direct effects of media context as well.

PRETESTING

Product Selection

In experiment 1, the participants' knowledge about the type of product being advertised was inferred from their prior experience with the product. Four categories of products were pretested: cleansing gel, facial masks, beer, and shaving foam. Eighty-three participants (44 males and 39 females) reported how knowledgeable they were about each of the four categories, using a scale from 0 (not at all knowledgeable) to 10 (extremely knowledgeable), and then indicated how often they used the product, using a scale from 1 (never) to 5 (very often). Finally, they read eight real brands of the product and indicated which brands they knew.

Based on these data, two product categories—cleansing gel and beer—were selected. Data pertaining to these categories are shown in the top half of table 1. Females reported having more knowledge about cleansing gel, used cleansing gel more frequently, and knew more real brands than males did. Correspondingly, males reported greater knowledge about beer, drank beer more often, and knew more real brands of beer than females did. Thus, pooled over males and females, participants' knowledge about the product category was not confounded with either gender differences or the particular product being judged.

Assessment of Relative Knowledge

We assumed that, although participants might vary in their perceptions of their knowledge relative to consumers at large, all participants would believe they knew less about the products than individuals with particular expertise in the product domain in question. To confirm this assumption, 30 male and 41 female students who did not participate in the main experiment were asked as part of a product survey to estimate how knowledgeable they were about cleansing gel compared to both (a) “consumers in general” and (b) typical readers of a professional beauty magazine whose mission was to provide medical consultation to beauty specialists. Analogously, they estimated their knowledge about beer relative to both consumers in general and the typical readers of a professional magazine that was targeted at beer manufacturers and beer lovers.

These judgments, on scales from -5 (less knowledgeable) to 5 (more knowledgeable), are shown in the bottom half of table 1 as a function of gender (males vs. females), product category (gel vs. beer), and the target of comparison (general consumers vs. experts), the latter two being within-subjects variables. Both males and females reported having less knowledge compared to experts ($M = -2.19$) than compared to consumers in general ($M = -0.14$; $F(1, 69) = 101.97, p < .001$). Moreover, an interaction of gender and product category ($F(1, 69) = 51.41, p < .001$) confirmed our assumption that, regardless of the target of comparison, males feel that they have greater relative knowledge about beer than females do (-0.52 vs. -2.44) but females feel that they have greater knowledge about cleansing gel than males do (0.07 vs. -1.77). Finally, if we assume that the scale midpoint (0) indicates “equal knowledge,” males believe they are relatively more knowledgeable about beer than consumers in general ($M = 0.86$); $t(29) = 2.49, p < .02$), whereas females believe they are less so ($M = -1.51$); $t(40) = -5.06, p < .001$). Correspondingly, females believe they are relatively more knowledgeable about gel than consumers in general ($M = 0.90$); $t(40) = 3.09, p < .005$), whereas males believe they are less so ($M = -0.80$); $t(29) = -2.24, p < .05$).

EXPERIMENT 1

To reiterate, we hypothesized that, when an ad is taken from a professional magazine, puffery would increase participants’ product evaluations regardless of their personal knowledge about the type of product being advertised. This should also be true when the ad is taken from a popular magazine and participants consider themselves to be less knowledgeable about the product category than consumers in the population at large. If participants believe they are as or more knowledgeable about the product category than the typical consumer, however, puffery should decrease their product evaluations. Experiment 1 evaluated these possibilities.

Method

Subjects and Design. Two hundred and twenty-nine undergraduate students (104 males and 125 females) at Hong Kong University of Science and Technology participated to fulfill a course requirement. This experiment employed a 2 (gender: males vs. females) $\times 2$ (product: beer vs. cleansing gel) $\times 2$ (media context: professional magazine vs. popular magazine) $\times 2$ (ad content: puffery vs. no puffery) between-subjects design. Based on the pretest, we assumed that males but not females considered themselves relatively knowledgeable about beer, whereas females but not males considered themselves relatively knowledgeable about cleansing gel. Thus, pooled over males and females, perceptions of relative knowledge were not confounded with either gender differences or the product category involved.

Stimulus Materials. Advertisements were constructed for two products (see app. A). One ad was for Sol Beer, a brand that few participants knew. A picture of the product was presented along with a general description of the product that was clearly understandable. However, a separate paragraph on “Specialties” of the beer was added, referring to features (e.g., “European pilsen method,” “Black Malt,” and “Flaked Barley”) that were assumed to constitute puffery. An analogous ad was constructed for M.D. Forte, an unfamiliar brand of cleaning gel, containing a picture of the gel and comprehensible product descriptions. However, information about “ingredients” was added, describing puffery characteristics (e.g., “Yucca schidigera extract,” “Sebopur Complex”).

Procedure. Participants in *popular media context* conditions were informed that they were going to take part in a survey conducted by *You*, which was a popular magazine with the mission of providing a multidimensional guide to shopping, food, and traveling that is useful to general readers. Participants in *professional media context* conditions were informed that they were going to take part in a survey conducted by a professional magazine. When the target product was beer, participants were informed that the ad was taken from *All About Beer*, a professional magazine for beer manufacturers and beer lovers. When the target product was gel, participants were informed that the ad was taken from *Beauty Expert*, a professional beauty magazine that provided medical consultation to beauty specialists and beauty salons. In each source condition, participants were told that a commercial advertisement taken from a previous issue of the magazine would be presented and that they should read the ad and answer the questions that followed. After reading the cover story and the ad to which they were assigned, participants reported how much they liked the product, using a scale from -5 (dislike very much) to 5 (like very much).

Results

Product ratings were analyzed as a function of media context, ad content, gender, and product type. Note that the in-

teractive effect of gender and product type is alternatively interpreted as an effect of consumer knowledge. Two interactions involving these two variables were reliable, each of which is described in more detail later. No other effects of gender or product type were reliable, however ($p > .10$). In the analyses to be reported, therefore, males who read the ad for beer and females who read the ad for cleansing gel were combined to form a single group of knowledgeable consumers, whereas males who read the ad for gel and females who read the ad for beer were combined to form a group of unknowledgeable consumers.

Effects of Puffery. We predicted that inserting puffery into the ad would decrease participants' evaluations when the ad came from a popular magazine and participants perceived themselves to be relatively knowledgeable about the type of product being advertised but that it would increase participants' evaluations under each of the other three combinations of context and product knowledge.

Product evaluations are presented in table 2 as a function of consumer knowledge, ad content, and media context. Knowledgeable participants generally liked the product more than unknowledgeable participants did (1.10 vs. 0.39; $F(1, 221) = 5.96, p < .02$). More relevant to our hypothesis, however, is the interaction of product knowledge, ad content, and media context. This interaction was significant ($F(1, 221) = 4.21, p < .05$) and of the form we expected. When the ad came from a professional magazine, the addition of puffery increased evaluations of the product by both knowledgeable and unknowledgeable participants. This conclusion is confirmed by a main effect of ad content when the ad appeared in a professional magazine ($F(1, 221) = 4.71, p < .04$). Puffery also increased evaluations by unknowledgeable consumers when the ad came from a popular magazine (.61 vs. -0.55 ; $M_{\text{diff}} = 1.16$; $F(1, 221) = 4.42, p < .04$). However, it decreased product evaluations by knowledgeable consumers when the ad appeared in a popular magazine (.54 vs. 1.52; $M_{\text{diff}} = -0.98$; $F(1, 221) = 2.85, p < .10$). The interaction of product knowledge and ad content when the ad came from a popular magazine was significant ($F(1, 221) = 7.13, p < .01$).

Direct Effects of Media Context. We speculated that consumers who perceived they had little knowledge about the product being advertised would use the context in which the ad was presented as a direct basis for judgment independently of the ad's content. That is, they would evaluate the product more favorably when the ad came from a professional magazine than when it came from a popular one. This was in fact the case. An analysis of data from these consumers alone indicates that they evaluated the product more favorably in general when it came from a professional magazine ($M = 0.76$) than when it came from a popular one ($M = 0.03$; $F(1, 221) = 3.29, p = .07$), and this was true both when the ad contained puffery (1.15 vs. 0.61) and when it did not (0.36 vs. -0.55).

Other Findings. Relatively knowledgeable consumers evaluated the products generally more favorably than un-

TABLE 2
PRODUCT EVALUATIONS AS A FUNCTION OF CONSUMER KNOWLEDGE, MEDIA CONTEXT, AND PUFFERY: EXPERIMENT 1

	Puffery	No puffery	Difference
Popular magazine:			
Knowledgeable consumers	.54	1.52	-.98
Unknowledgeable consumers	.61	-.55	1.16
Professional magazine:			
Knowledgeable consumers	1.70	.65	1.05
Unknowledgeable consumers	1.15	.36	.79

NOTE.—Evaluations are reported on a scale from -5 (dislike very much) to 5 (like very much).

knowledgeable consumers when puffery was not contained in the ad (1.09 vs. -0.09 ; $F(1, 221) = 8.13, p < .005$). Moreover, this difference was greater when the ad ostensibly appeared in a popular magazine (1.52 vs. -0.55) rather than a professional one (0.65 vs. 0.36), as indicated by an interaction of knowledge and source ($F(1, 221) = 4.55, p < .05$). An interpretation of this finding is considered in more detail after the results of experiment 2 are reported.

Supplementary Data

Two related assumptions underlie our hypotheses. First, the interactive effects of knowledge level and media context on the impact of puffery are the result of differences in participants' perceptions that the ad is intended to be informative. Second, the negative effect of puffery on knowledgeable consumers' reactions to an ad is driven by their perception that the ad is intended only to persuade and not to be informative. Two sets of supplementary data were collected to confirm these assumptions.

Perceptions of Informativeness. We assumed that consumers consider puffery to be potentially informative if they perceive themselves to have less knowledge about the type of product being advertised than other consumers whom the ad is intended to influence. Thus, they should consider it more informative if either (a) the ad is taken from a popular magazine and they believe they have relatively less knowledge about the product category than others in the general population or (b) the ad is taken from a professional magazine regardless of their personal knowledge about the product.

To verify this assumption, we assigned 62 undergraduate students (34 males and 28 females) to one of the eight conditions of a 2 (media context: popular magazine vs. professional magazine) \times 2 (gender: male vs. female) \times 2 (product category: cleansing gel vs. beer) between-subjects design. Participants were exposed to one of the two ads with puffery (see app. A). After reading the cover story and the ad to which they were assigned, participants were asked to judge the informativeness of the puffery (i.e., the "Ingredients" of the gel or the "Specialties" of the beer), using a scale from 0 (not at all informative) to 10 (very informative). They also estimated the appropriateness of the ad for the

magazine in which it was contained, again using a scale from 0 (not at all) to 10 (very), and they also reported whether the ad would meet the taste of the magazine's target readers, also using a scale from 0 (no) to 10 (yes).

Our expectations were confirmed. Participants judged the puffery to be generally more informative when the ad appeared in a professional magazine ($M = 5.80$) than when it appeared in a popular magazine ($M = 4.36$; $F(1, 58) = 8.73$, $p < .005$). However, the interaction of media context and product knowledge was also significant ($F(1, 58) = 4.89$, $p < .05$). Data pertaining to this interaction, summarized in the top half of table 3, indicate that participants judged the puffery to be less informative when the ad appeared in a popular magazine and described a product about which they were knowledgeable ($M = 3.47$) than if it either appeared in a popular magazine but described a product about which they had little knowledge ($M = 5.24$) or appeared in a professional magazine regardless of whether they were knowledgeable about the product or not (6.00 vs. 5.60). A comparison of judgments under the first condition with judgments under the latter three conditions combined (3.47 vs. 5.61) was quite significant ($F(1, 60) = 15.13$, $p < .001$).

Estimates of the appropriateness of the ad for the magazine in which it was contained were correlated .82 with estimates of whether the ad would meet the taste of the magazine's target readers. Responses to these items were averaged to form a single index of the appropriateness of the ad for the magazine in which it was found. The effects of context and knowledge, shown in the bottom half of table 3, paralleled their effect on informativeness. Although the main effect of context was significant ($F(1, 58) = 10.27$, $p < .005$), it was qualified by an interaction of media context and knowledge level ($F(1, 58) = 4.40$, $p < .05$). That is, although knowledgeable consumers judged the ad containing puffery to be more appropriate when it appeared in a professional magazine than when it appeared in a popular magazine (6.69 vs. 3.65; $F(1, 58) = 13.53$, $p < .001$), unknowledgeable consumers judged the ad to be equally appropriate regardless of its media context (5.90 vs. 5.27). A comparison of judgments by knowledgeable consumers in popular magazine conditions with judgments under the other three conditions combined (3.65 vs. 5.95) was significant ($F(1, 60) = 12.09$, $p < .001$).

Perceptions of Persuasive Intent. We assumed that all advertisements were perceived as intending to persuade but differed in the extent to which they were perceived to accomplish this by providing useful information about the product being advertised. That is, if participants perceived that the ad with puffery was intended to provide useful information, they would react to it positively and evaluate the advertised product more favorably. And if participants perceived that the ad was intended only to persuade, they would react negatively to it and evaluate the advertised product less favorably than they otherwise would. However, suppose the same product descriptions are communicated by a source whose objective is not to persuade. In this case, consumers may have no basis to infer whether the puffery de-

TABLE 3

PERCEIVED INFORMATIVENESS AND APPROPRIATENESS OF PUFFERY: EXPERIMENT 1, SUPPLEMENTARY DATA

	Popular magazine	Professional magazine
Informativeness:		
Knowledgeable consumers	3.47	6.00
Unknowledgeable consumers	5.24	5.60
Appropriateness:		
Knowledgeable consumers	3.65	6.69
Unknowledgeable consumers	5.27	5.90

NOTE.—Estimates of informativeness and appropriateness are reported on a scale from 0 (not at all) to 10 (very).

scriptions have positive or negative implications. Consequently, they may simply ignore attribute descriptions they cannot understand and base their evaluations on the descriptions they find to be meaningful.

To evaluate this possibility, 38 male and 38 female students were told that we were interested in consumers' reactions to products described in *Consumer Reports*, which was described as an "independent nonprofit organization with a mission to work for fair marketing place" and as "the main channel through which objective information about products and services is communicated to the general public. It normally provides *all* of the information available about the products it describes." On this pretense, participants read information about both the beer and the cleansing gel in counterbalanced order. The attribute descriptions were identical to those presented in experiment 1. However, they were conveyed in a list in the absence of a picture. In some cases, only the informative attributes were presented, whereas in others, the puffery descriptions were added under a separate heading ("Ingredients" or "Specialties," in the case of gel or beer, respectively). Participants read each set of information and then estimated their liking for the product using a scale from -5 (dislike very much) to 5 (like very much). They also estimated the general informativeness of all attributes presented using a scale from 0 (not at all) to 10 (very).

Participants did not rate the product descriptions as any more informative when puffery-related attribute descriptions were provided ($M = 6.47$) than when they were not ($M = 6.13$; $F < 1$). More important, an analysis of liking data indicated that, although participants liked the cleansing gel more than the beer (2.55 vs. 1.47; $F(1, 71) = 17.74$, $p < .001$), no effects involving either product knowledge or ad content were significant ($p > .10$).

Thus, when puffery was presented in a context that was not intended to persuade but simply provided archival information, it had little effect on consumers' reactions to the product regardless of their personal knowledge about it. In this case, consumers apparently had no basis for inferring whether the puffery descriptions had positive or negative implications. As a result, they just ignored information whose implications they did not personally understand and based

their judgments on the information whose implications were clear.

EXPERIMENT 2

A possible ambiguity in interpreting experiment 1 results from the fact that differences in consumers' perceptions of their relative knowledge about the product category were confounded with their actual knowledge about it. For example, females not only reported having greater knowledge about cleansing gel in comparison to consumers in general but also used cleansing gel more frequently and knew more real brands than males did. Correspondingly, males not only reported being more knowledgeable about beer in comparison to consumers in general, but they also drank beer more often and knew more brands of beer. It is therefore not clear whether participants' reactions to puffery were determined by their perceptions of their relative knowledge about the product category or perceptions of their actual knowledge independently of what others might know.

According to our conceptualization, consumers' self-perceptions of their actual knowledge and their perceptions of their relative knowledge have different effects. Consumers' perceptions of their relative knowledge affect their interpretation of the ad's content. That is, they influence the extent to which the puffery in the ad is perceived to be informative or only to persuade. However, consumers' perceptions of their actual knowledge influence their tendency to use the ad's context as a direct basis for judgment independently of its content. Although the results of experiment 1 were consistent with both of these possibilities, it was desirable to confirm our interpretation of these findings by manipulating participants' perception of their relative knowledge about the product category independently of their perception of actual knowledge about it.

Method

Subjects and Design. Two hundred and one undergraduate students at Hong Kong University of Science and Technology participated to fulfill a course requirement. They were assigned to one of the eight conditions of a 2 (media context: popular magazine vs. professional magazine) \times 2 (ad content: puffery vs. no puffery) \times 2 (relative knowledge: high vs. low) between-subjects design.

Procedure. All participants were informed that the present research was conducted by an advertising agency that had two primary interests. First, the agency wanted to know college students' general knowledge about fabrics. Second, it wished to obtain students' reactions to a particular clothing ad that it had recently created. On this pretense, participants first completed a Knowledge Assessment questionnaire containing 20 binary choice questions about fabrics. In *high relative knowledge* conditions, many of the questions were relatively easy (e.g., "Which fabric material is more wearable, jeans or linens?" "Which fabric is more expensive, cashmere or wool?"), but participants were told that more

than 90% of previous respondents found the questions very difficult and could answer less than five questions correctly. In *low relative knowledge* conditions, many of the questions were difficult (e.g., "Leaf fiber and fruit fiber can be used to make fabrics. Which fiber is coarser?"). However, participants were told that more than 90% of previous respondents found them relatively easy and could answer more than 15 questions correctly. After responding to 20 questions, participants in both conditions were asked to estimate how many questions they had answered correctly and then to report their knowledge about fabrics from a scale running from -5 (less knowledge than ordinary consumers) to 5 (more knowledgeable than ordinary consumers).

Participants then went on to the second part of the experiment, which ostensibly concerned evaluations of a clothing ad. Participants in the popular media context condition were informed that the ad was advertised in *You Magazine*, which was described as in experiment 1. Participants in the professional media context condition were informed that the ad was advertised in *Apparel Magazine*, a professional magazine for fashion experts.

All participants then read an ad for a Red Mountain down vest. In the ad with *no puffery*, a picture of an orange down vest was presented against the background of a village covered with snow. One paragraph of comprehensible descriptions was presented below the picture. In the ad with *puffery*, however, a paragraph of "Fabrics" was added that described puffery ("Omni-Bloc HP Cyber Stretch," "FD Micro Guard Plus Lining," etc.; see app. B).

After reading the ad, participants indicated how much they liked the product on a scale from -5 (dislike very much) to 5 (like very much). Then, they indicated how knowledgeable they were about fabrics in general, again on a scale from 0 (not at all knowledgeable) to 10 (extremely knowledgeable). In addition, they reported how well informed they were about fabrics relative to other individuals, using a scale from -5 (not at all well informed) to 5 (extremely well informed).

Results

Manipulation Checks. Participants reported having greater relative knowledge in the high relative knowledge condition than in the low relative knowledge condition, and this was true both immediately after completing the knowledge questionnaire (0.25 vs. -1.56 ; $F(1, 198) = 38.19$, $p < .001$) and at the end of the experiment (0.09 vs. -0.87 ; $F(1, 198) = 13.27$, $p < .001$). However, their perception of actual knowledge was generally low and did not differ in the two knowledge conditions (3.73 vs. 3.42 ; $p > .10$). Thus, our manipulation influenced participants' perceptions of their knowledge relative to others but did not affect their perceptions of actual knowledge.

Effects of Puffery. Mean evaluations are presented in table 4 as a function of consumers' relative knowledge, ad content, and source. Analyses of these data confirm the effects of puffery that we observed in experiment 1. The predicted three-way interaction of media context, relative

TABLE 4

PRODUCT EVALUATIONS AS A FUNCTION OF RELATIVE KNOWLEDGE ABOUT THE PRODUCT CATEGORY, MEDIA CONTEXT, AND PUFFERY: EXPERIMENT 2

	Puffery	No puffery	Difference
Popular magazine:			
High relative knowledge	.21	1.28	-1.07
Low relative knowledge	.74	-.24	.98
Professional magazine:			
High relative knowledge	1.65	.60	1.05
Low relative knowledge	2.05	1.17	.88

NOTE.—Evaluations are reported on a scale from -5 (dislike very much) to 5 (like very much).

knowledge, and ad content was again significant ($F(1, 193) = 3.85, p < .05$). Furthermore, a comparison of the data in tables 2 and 4 indicates that, despite differences in the criterion for inferring relative knowledge and the type of product being evaluated, the effects of introducing puffery in the two studies were remarkably similar.

When the ad came from a professional magazine, introducing puffery into the ad increased product evaluations, and this was true regardless of participants' perceptions of their knowledge relative to the general public (1.85 vs. 0.89, when puffery was present vs. absent, respectively; $M_{diff} = 0.96$). This difference was significant ($F(1, 193) = 5.83, p < .02$) and did not depend on the participants' perception of their relative knowledge ($F < 1$). Puffery also increased product evaluations when the ad came from a popular magazine and participants perceived their relative knowledge to be low ($M_{diff} = 0.98$), although this increase was not significant ($F(1, 193) = 2.48, p = .12$). When participants perceived their relative knowledge to be high, however, adding puffery to the ad from a popular magazine decreased their evaluations ($M_{diff} = -1.07; F(1, 193) = 4.57, p < .04$). The interaction of ad content and relative knowledge when the source was a popular magazine was significant ($F(1, 193) = 6.59, p < .02$). These data confirm those observed in experiment 1 under comparable conditions.

Direct Effects of Media Context. As noted earlier, all participants in this study perceived themselves to have little knowledge about fabrics. To this extent, they should tend to use the type of magazine in which the ad was presented as a direct basis for judgment regardless of their perception of their knowledge relative to others. This was in fact the case. Participants evaluated the product more favorably when the ad came from a professional magazine ($M = 1.37$) than when it came from a popular magazine ($M = 0.50; F(1, 193) = 9.59, p < .01$). Although this difference was somewhat greater when participants perceived their knowledge to be relatively low (1.61 vs. 0.25) than when they perceived it to be relatively high (1.13 vs. 0.75), this difference only approached significance ($F(1, 193) = 3.06, p < .08$). Thus, participants in this experiment, as in experiment 1, appeared to use the type of magazine in

which the ad appeared as a basis for judgment independently of the content of the ad itself.

Discussion

Experiment 2 confirmed our assumption that people's reactions to puffery are not influenced by their actual knowledge about the product or their perception of this knowledge per se. Rather, these reactions are influenced by their perception about how much knowledge they have about the product relative to that of individuals to which the ad was primarily directed. In experiment 1, participants' perception of their knowledge relative to others' was manipulated by varying the product category with which participants were familiar and, therefore, their personal knowledge about the type of product being advertised. In experiment 2, this perception was induced by manipulating participants' perceptions of others' knowledge without changing their beliefs about their own knowledge per se. The effects of our manipulations on the impact of puffery on judgments were virtually identical in each study.

Although participants' perceptions of their knowledge in relation to others influenced their interpretation of the puffery that was contained in the ads they considered, their perception of their actual knowledge appeared to have a more general impact. Participants who generally perceived that they had little knowledge about the product category evaluated the product more favorably when the ad came from a professional magazine. Furthermore, this was true regardless of the type of information the ad contained. This tendency was also evident in experiment 1 among participants who knew little about the type of product being advertised. Thus, both studies converge on the conclusion that, when participants perceive themselves to have generally little knowledge about the type of product they are considering, they tend to use the media context as a direct basis for judgment independently of the content of the ad itself.

An additional aspect of our findings may be worth noting. In the absence of puffery, participants' evaluations of a product that was advertised in a popular magazine were less favorable when their relative knowledge about the product category was low ($M = -0.24$) than when it was high ($M = 1.28$). A similar difference was evident in experiment 1 under comparable conditions (-0.55 vs. 1.52 ; see table 2). When the ad appeared in a professional magazine, however, the effect of knowledge on product evaluations in these conditions did not differ appreciably.

Although this difference was unexpected, it has a plausible explanation. Individuals typically make less extreme ratings along a category scale when they are not confident of the validity of these ratings (Zalesny 1990; for a theoretical basis for this difference and empirical support for it, see Wyer [1973]). Individuals who believe they know relatively little about a product are likely to be cautious about making an extreme rating of it, and this may be particularly true if the information about it comes from a popular magazine whose ads are not always reliable. As a result, they may report relatively less extreme (i.e., less favorable) rat-

ings of the product than they would otherwise make. Note that a corresponding difference was not apparent when the ads appeared in a professional magazine. Perhaps participants in this condition compared their knowledge to that of experts and felt relatively unconfident of their judgments regardless of their perception of their knowledge relative to peers. The failure to assess consumers' confidence directly requires that this interpretation be treated with caution. Be that as it may, this unexpected difference does not compromise our interpretation of the effects of relative knowledge on the impact of puffery, which are statistically independent of the difference.

Supplementary Data

The supplementary data we collected in experiment 1 provided evidence that, when participants received information from an unbiased source that was intended to provide archival information but not to persuade, participants appeared to ignore the attribute descriptions they did not understand, and so puffery had no effect at all. Thus, there was no evidence that individuals regarded the puffery as generally informative out of the context of the ads or the media in which they appeared. We reconfirmed this conclusion on the basis of supplementary data we collected in the present paradigm under conditions in which the product information presented was ostensibly selected at random.

Method. Seventy participants were assigned to one of the four conditions of a 2 (subjective relative knowledge: high vs. low) \times 2 (ad content: puffery vs. no puffery) between-subjects design. After completing the same knowledge assessment questionnaires about fabric materials we administered in the main experiment, participants took part in a "Consumer Survey" that was ostensibly interested in understanding consumers' responses to different attributes of a product. Participants were instructed to read descriptions of a down vest that were randomly selected by a computer (Schwarz 1994) from a pool of attributes that characterized the type of product under consideration. The descriptions, which were conveyed in the absence of a picture, were identical to those presented in the main study. In one condition, only the informative attributes were presented. In a second condition, the puffery descriptions were added under a separate heading of "Fabrics."

Participants read the information they received and then reported their liking for the products, using a scale from -5 (dislike very much) to 5 (like very much). They also estimated the general informativeness of all attributes presented on a scale from 0 (not at all) to 10 (very). Finally, they judged the extent to which the descriptions provided useful information about the product, again using a scale from 0 (not at all) to 10 (very).

Results. Participants' reports of their knowledge relative to that of others were greater in high-knowledge conditions than in low-knowledge conditions, and this was true both immediately upon completing the knowledge assessment

questionnaire (.03 vs. -1.56 ; $F(1, 68) = 5.28$, $p < .03$) and at the end of the experiment (.23 vs. -1.00 ; $F(1, 68) = 6.09$, $p < .02$). As in the main experiment, however, perception of actual knowledge was generally low and did not differ in the two knowledge conditions (4.06 vs. 3.50 ; $p > .10$).

Participants rated the computer-selected descriptions to be less useful when puffery descriptions were presented ($M = 5.60$) than when they were not ($M = 6.50$; $F(1, 66) = 4.47$, $p < .04$), and this was true regardless of their perceptions of their relative knowledge ($F < 1$). However, they did not consider the descriptions to be any more informative in the former condition than the latter (6.61 vs. 7.21 ; $p > .10$). More important, participants evaluated the product equally favorably when the puffery attributes were and were not presented (1.54 vs. 1.85 , respectively; $F < 1$), and this was true in both relative knowledge conditions; the interaction of knowledge and ad content was not significant ($F < 1$). Although a failure to reject the null hypothesis does not guarantee that it is true, the effect of puffery in this condition was nonsignificantly in the opposite direction to what one would expect if the puffery were considered generally informative.

To provide further confirmation of our interpretation of these data, we performed a post hoc analysis of product evaluations in which computer context conditions was included along with the two media context conditions in the main study. This analysis yielded a significant interaction of context, puffery, and relative product knowledge ($F(2, 259) = 3.03$, $p < .05$). Puffery had significantly less effect in computer context conditions (1.54 vs. 1.85 , when puffery was present vs. absent, respectively) than in professional magazine conditions (1.85 vs. 0.58 ; $F(1, 259) = 4.85$, $p < .05$), and this difference did not depend on relative product knowledge ($p > .10$). Thus, the effect of puffery in professional magazine conditions was not simply a result of participants' perception that the puffery was generally informative independently of its context. A comparison of computer context conditions with popular magazine conditions yielded an interaction of condition, puffery, and relative product knowledge ($F(1, 259) = 4.43$, $p < .05$), indicating that the null effect of puffery in computer context conditions was between its effect on high-knowledge participants in popular magazine conditions (-0.21 vs. 1.28) and its effect on low-knowledge participants in these conditions (0.74 vs. -0.24).

Caution should be taken in interpreting these post hoc comparisons since the supplementary data and the data in the main experiment were collected at different points in time. It seems unlikely, however, that the effect of puffery would systematically depend on this difference. In any event, the comparisons are consistent with our conclusion that the results of the main experiment were not attributable to differences in the general informativeness of the puffery. Rather, the results are attributable to the effects of media context on interpretations of puffery.

GENERAL DISCUSSION

The use of puffery in advertisements is a common strategy. Our results show that, although this strategy can sometimes be beneficial, its effectiveness is limited. Specifically, it depends on participants' perception of their personal knowledge about the product category relative to that of other individuals that the ad is intended to influence. This perception, in turn, may depend on the type of media in which the ad appears as well as the type of product being advertised.

Our conceptualization of these effects assumes that consumers' reactions to an ad are influenced by two normative principles of communication. One principle, that communications are intended to be informative (Grice 1975), is spontaneously invoked when people initially encounter a communication regardless of its source. The second principle, which is specific to advertisements, is that ads are intended to persuade consumers that the advertised product is worth buying. The latter principle may only be applied, however, when the content of the ad appears to violate the more general principles of communication assumed by Grice (1975).

Thus, if consumers encounter an advertisement whose content is consistent with the Gricean principle of informativeness (i.e., it is easy to comprehend and conveys new information), they may accept its implications and evaluate the product accordingly, without considering the fact that the ad is intended to persuade. If, however, the ad contains product descriptions that consumers do not understand, they engage in more deliberative processing in order to construe its implications. Specifically, if they perceive that the ad is targeted at experts in the domain to which the product pertains, they assume that the information they do not understand would nonetheless be informative to the intended audience. They may also make this assumption if the ad is targeted at the general population but they personally feel less knowledgeable about the product than consumers at large. However, suppose consumers perceive themselves to be as or more knowledgeable than the individuals that the ad is intended to influence. Then, they are likely to assume that the descriptions they cannot understand would not be informative to anyone and is intended only to persuade. In this case, they may react negatively to the ad and evaluate the advertised product less favorably than they would if these descriptions were not provided.

Note, however, that individuals are only motivated to engage in this cognitive activity when general communication norms of informativeness and source specific communication norms of persuasiveness are applicable. If they believe that the attributes are presented by an unbiased source (e.g., *Consumer Reports*) or by a source to which neither communication norm is applicable (e.g., descriptions are randomly selected by a computer), participants may simply ignore descriptions whose implications they personally do not understand. Then, as indicated by the supplementary data we obtained in experiments 1 and 2, puffery has little effect at all over and above the informative descriptions.

At the same time, some caution should be taken in over-

generalizing the specific pattern of findings we observed. This pattern may depend in part on the nature of the puffery. For example, the puffery we employed in our studies could plausibly be seen as informative. If the puffery's meaninglessness is more obvious, however, a higher degree of uncertainty about its implications might be necessary for it to have a positive influence. The effects of different types of meaningless information on product evaluations under the conditions we investigated may be worth examining.

Direct Influences of Media Context on Judgments

Other processes may come into play in the conditions we investigated. For example, consumers who feel personally unknowledgeable about the product being advertised appeared to use the context in which the ad occurs as a direct basis for judgment independently of the ad's content. Thus, they attach greater credibility to an ad if the ad appears in a professional magazine than if the ad appears in a popular magazine, and they evaluate the advertised product more favorably in the former case. This tendency, which was evident in both experiments, is consistent with evidence that people use the source of a message as a basis for judgment when they are unable or unmotivated to evaluate the message content (Chaiken 1987; Petty and Cacioppo 1986). However, a distinction should be made between the source of a message and the context in which the message appears. Although the effects of source credibility have been investigated extensively (Johnson et al. 2005), our research is among the first to consider the effect of media context on interpretations of ad content.

This does not mean, however, that media context is used as a heuristic. Individuals presumably use a heuristic as a simplifying basis for judgment instead of engaging in more extensive processing. If media context were used as a heuristic in our studies, it should have decreased participants' consideration of the communication's content. This was not the case. Rather, the context in which the ad appeared had both a direct effect on evaluations and an indirect effect through its impact on how the message content was interpreted. In other words, media context was simply used as an additional source of information, being weighted more or less heavily depending on participants' knowledge about the product being advertised.

In this regard, other heuristic criteria that might potentially have been applied had little impact. One might speculate, for example, that unknowledgeable consumers apply an "amount of information" heuristic, evaluating the product more favorably when more attribute descriptions are contained in the ad, independently of the nature of these descriptions. This could account for the effect of adding puffery when participants felt relatively unknowledgeable about the product. However, it could not account for the negative impact of adding puffery when participants perceived themselves to be more knowledgeable than others. The failure for puffery to have an impact on judgments when the information ostensibly came from an unbiased source (e.g., *Consumer Reports* or a computer) also calls this interpretation into question.

Other Considerations

Our research may also be worth considering in the context of other theory and research on communication and persuasion in consumer behavior. Several recent studies, for example, have explored the factors that are likely to activate consumers' sensitivity to marketers' ulterior motives. (For a review, see Campbell and Kirmani [2008].) These tactics include flattery (Campbell and Kirmani 2000), the use of rhetorical questions (Ahluwalia and Burnkrant 2004), and expensive default options (Brown and Krishna 2004). The present research identified another factor that may activate persuasion knowledge: perceptions that the message content violates normative principles of informativeness. Moreover, little is known about the influence of topic knowledge on

the effectiveness of persuasion (Campbell and Kirmani 2008). To this extent, our analysis of the role of self-perceived knowledge in the impact of puffery, or in other forms of misleading advertising (Kardes, Kim, and Lim 1994), may be of value in conceptualizing this influence.

The addition of puffery to an advertisement could potentially have other effects than those we considered in the present research. For example, it could distract individuals from attending to the more objectively relevant information, thereby diluting its impact (Hall, Ariss, and Todorov 2007; see also Tetlock, Lerner and Boettger 1996). This possibility could not account for the different effects of the media context we observed in the present experiments. Nevertheless, the conditions in which adding puffery has a distracting influence are clearly worth investigating.

APPENDIX A

STIMULUS MATERIALS FOR EXPERIMENT 1

FIGURE A1

CLEANSING GEL AD WITH PUFFERY



Radiant looking skin begins here. Formulated with key natural ingredients, this soft, light foaming cleanser is as gentle as milk and more effective than a soap. Make-up impurities are swept away leaving skin's natural pH and moisture content perfectly balanced. Skin looks and feels fresh, brighter and more radiant.

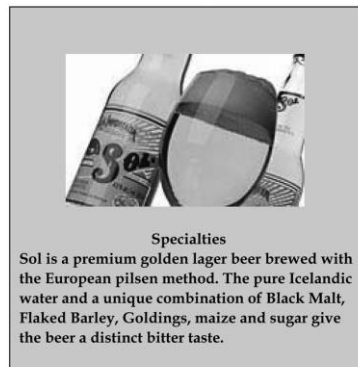
Beauty Benefits :

- Thoroughly removes excess oil secretions, surface impurities and make-up.
- Cleanses and purifies. Respects skin's natural balance.
- Refines surface skin texture and tightens pores.
- Softens and neutralizes the drying effects of hard water.
- Leaves skin fresh, soft and radiant.

NOTE.—Color version available as an online enhancement.

FIGURE A2

BEER AD WITH PUFFERY



There's a difference between drinking beer and appreciating beer. Train your palate to taste critically, and you open up a much wider world of beer enjoyment. SOL, brewed for **DISCRIMINATING TASTE**.

- Cool and refreshing.
- Long-lasting Taste.
- Distinct Bitterness.

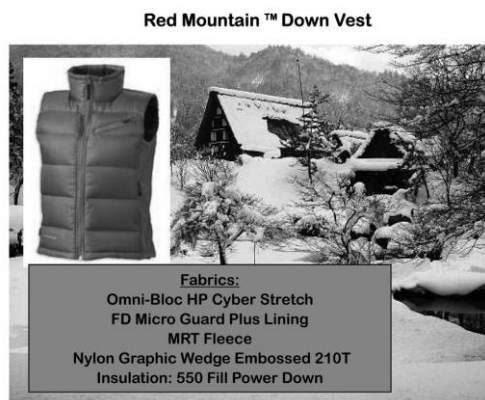
NOTE.—Color version available as an online enhancement.

APPENDIX B

STIMULUS MATERIAL FOR EXPERIMENT 2

FIGURE B1

VEST AD



Lightweight, down insulation for warmth on chilly days!

This down vest is truly lightweight. The shell is breathable, stretchable and comfortable. The shell and liner can either zip together for maximum-protection or zip apart to be worn separately. The result is a system that provides excellent adaptability for all weather conditions or activity levels. The collar can be adjusted for temperature regulation. The security pocket is designed to hold keys, a credit card or other necessities where you can get to them but no one else can.

NOTE.—Color version available as an online enhancement.

REFERENCES

- Adweek* (2008), "Junk Science: 'Functional' Foods Promise Good Health—but Can They Deliver?" September, 20–22.
- Ahluwalia, Rohini and Robert E. Burnkrant (2004), "Answering Questions about Questions: A Persuasion Knowledge Perspective for Understanding the Effects of Rhetorical Questions," *Journal of Consumer Research*, 31 (June), 26–42.
- Anand, Punam and Brian Sternthal (1988), "Strategies for Designing Persuasive Messages: Deductions from the Resource Matching Hypothesis," in *Cognitive and Affective Responses to Advertising*, ed. Patricia Cafferata and Alice M. Tybout, Lexington, MA: Lexington Books, 135–60.
- Brehm, Jack W. (1966), *A Theory of Psychological Reactance*, New York: Academic Press.
- Broniarczyk, Susan M. and Andrew D. Gershoff (2003), "The Reciprocal Effects of Brand Equity and Trivial Attributes," *Journal of Marketing Research*, 40 (May), 161–75.
- Brown, Christina L. and Gregory S. Carpenter (2000), "Why Is Trivial Important? A Reasons-Based Account for the Effects of Trivial Attributes on Choice," *Journal of Consumer Research*, 26 (March), 372–85.
- Brown, Christina L. and Aradhna Krishna (2004), "The Skeptical Shopper: A Metacognitive Account for the Effects of Default Options on Choice," *Journal of Consumer Research*, 31 (December), 529–39.
- Campbell, Margaret C. and Amna Kirmani (2000), "Consumers' Use of Persuasion Knowledge: The Effects of Accessibility and Cognitive Capacity on Perceptions of an Influence Agent," *Journal of Consumer Research*, 27 (June), 69–83.
- (2008), "I Know What You're Doing and Why You're Doing It: The Use of the Persuasion Knowledge Model in Consumer Research," in *The Handbook of Consumer Psychology*, ed. Curtis Haugtvedt, Paul M. Herr, and Frank R. Kardes, Mahwah, NJ: Erlbaum, 549–73.
- Carpenter, Gregory S., Rashi Glazer, and Kent Nakamoto (1994), "Meaningful Brands from Meaningless Differentiation: The Dependence on Irrelevant Attributes," *Journal of Marketing Research*, 31 (August), 339–50.
- Chaiken, Shelly (1987), "The Heuristic Model of Persuasion," in *Social Influence: The Ontario Symposium*, Vol. 5, ed. Mark P. Zanna, James M. Olson, and C. Peter Herman, Hillsdale, NJ: Erlbaum, 3–39.
- Chaiken, Shelly and Durairaj Maheswaran (1994), "Heuristic Processing Can Bias Systematic Processing: The Effects of Task Importance, Argument Ambiguity, and Source Credibility on Persuasion," *Journal of Personality and Social Psychology*, 66 (March), 460–73.
- Dannon Activia Lawsuit (2008), <http://www.importantlawsuits.com/lawsuits/dannon-activia-lawsuit/>.
- Friestad, Marian and Peter Wright (1994), "The Persuasion Knowledge Model: How People Cope with Persuasion Attempts," *Journal of Consumer Research*, 21 (June), 1–31.
- (1995), "Persuasion Knowledge: Lay People's and Re-

- searchers' Beliefs about the Psychology of Advertising," *Journal of Consumer Research*, 22 (June), 62–74.
- Grice, H. Paul (1975), "Logic and Conversation," in *Syntax and Semantics*, Vol. 3, *Speech Acts*, ed. Peter Cole and Jerry L. Morgan, New York: Academic Press, 41–58.
- Gruenfeld, Deborah H. and Robert S. Wyer Jr. (1992) "Semantics and Pragmatics of Social Influence: How Affirmations and Denials Affect Beliefs in Referent Propositions," *Journal of Personality and Social Psychology*, 62 (1), 38–49.
- Hall, Crystal C., Lynn Ariss, and Alexander Todorov (2007), "The Illusion of Knowledge: When More Information Reduces Accuracy and Increases Confidence," *Organizational Behavior and Human Decision Processes*, 103 (2), 277–90.
- Harvard Health Publications (2009), "How to Boost Your Immune System," excerpted from *The Truth about Your Immune System*, Special Health Report, Cambridge, MA: Harvard Health Publications, <https://www.health.harvard.edu/flu-resource-center/how-to-boost-your-immune-system.htm>.
- Higgins, E. Tory (1981), "The 'Communication Game': Implications for Social Cognition and Persuasion," in *Social Cognition: The Ontario Symposium*, Vol. 1, ed. E. Tory Higgins, C. Peter Herman, and Mark P. Zanna, Mahwah, NJ: Erlbaum, 342–92.
- Hung, Iris W. and Robert S. Wyer (2008), "The Impact of Implicit Theories on Responses to Problem-Solving Print Advertisements," *Journal of Consumer Psychology*, 18 (3), 223–35.
- Hutchinson, J. Wesley and Joseph W. Alba (1991), "Ignoring Irrelevant Information: Situational Determinants of Consumer Learning," *Journal of Consumer Research*, 18 (December), 325–46.
- Johar, Gita V. (1995), "Consumer Involvement and Deception from Implied Advertising Claims," *Journal of Marketing Research*, 32 (August), 267–79.
- Johnson, Blair T., Gregory R. Maio, and Aaron Smith-McLallen, (2005), "Communication and Attitude Change: Causes, Processes, and Effects," in *The Handbook of Attitudes*, ed. Dolores Albarracín, Blair T. Johnson, and Mark P. Zanna, Mahwah, NJ: Erlbaum, 617–69.
- Kardes, Frank R., John Kim, and Jeon-Su Lim (1994), "Moderating Effects of Prior Knowledge on the Perceived Diagnosticity of Beliefs Derived from Implicit versus Explicit Product Claims," *Journal of Business Research*, 29 (March), 219–24.
- Kardes, Frank R., Steven S. Posavac, and Maria L. Cronley (2004), "Consumer Inference: A Review of Processes, Bases, and Judgment Contexts," *Journal of Consumer Psychology*, 14 (3), 230–56.
- 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.
- Papageorgis, Demetrios (1968), "Warning and Persuasion," *Psychological Bulletin*, 70 (4), 271–82.
- Petty, Richard E. and John T. Cacioppo (1979), "Effects of Forwarning of Persuasive Intent and Involvement on Cognitive Responses and Persuasion," *Personality and Social Psychology Bulletin*, 5 (2), 173–76.
- (1986), *Communication and Persuasion: Central and Peripheral Routes to Attitude Change*, New York: Springer-Verlag.
- Sagarin, Brad J., Robert B. Cialdini, William E. Rice, and Sherman B. Serna (2002), "Dispelling the Illusion of Invulnerability: The Motivations and Mechanisms of Resistance to Persuasion," *Journal of Personality and Social Psychology*, 83 (3), 526–41.
- Schwarz, Norbert (1994), "Judgment in a Social Context: Biases, Shortcomings, and the Logic of Conversation," *Advances in Experimental Social Psychology*, 26, 123–62.
- (1996), *Cognition and Communication: Judgmental Biases, Research Methods and the Logic of Conversation*, Hillsdale, NJ: Erlbaum.
- Shimp, Terence A. and Ivan L. Preston (1981), "Deceptive and Nondeceptive Consequences of Evaluative Advertising," *Journal of Marketing*, 45 (1), 22–32.
- 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 (1), 23–40.
- Sperber, Dan and Deirdre Wilson (1986), *Relevance: Communication and Cognition*, Cambridge, MA: Harvard University Press.
- 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 (6), 915–34.
- Wyer, Robert S. (1973), "Category Ratings as 'Subjective Expected Values': Implications for Attitude Formation and Change," *Psychological Review* 80 (6), 446–67.
- (2004), *Social Comprehension and Judgment: The Role of Situation Models, Narratives, and Implicit Theories*, Mahwah, NJ: Erlbaum.
- Wyer, Robert S. and Deborah H. Gruenfeld (1995), "Information Processing in Social Context: Implications for Social Memory and Judgment," in *Advances in Experimental Social Psychology*, Vol. 27, ed. Mark P. Zanna, San Diego, CA: Academic Press, 49–91.
- Zalesny, Mary D. (1990), "Rater Confidence and Social Influence in Performance Appraisals," *Journal of Applied Psychology*, 75 (3), 274–89.