Third-Party Organization Endorsement of Products: An Advertising Cue Affecting Consumer Prepurchase Evaluation of Goods and Services

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Advertisements containing product endorsements by a third-party organization (TPO), product endorsements by a celebrity, or no endorsement were compared for their ability to affect the dependent variables of perceived product quality, attitude toward the manufacturer, purchase risk, and information value of the ad. In addition, prior brand evaluation and source (endorser) trustworthiness were tested as moderators of the endorsement effect. In two factorial experiments, one for a desktop computer and one for auto insurance, significant main effects were found for endorsement and brand but not for trustworthiness. Brand interacted with endorsement in the quality perception of computers. In both experiments, TPO endorsement was particularly effective in enhancing respondent perceptions of product quality. It is concluded that TPO endorsement may function as an extrinsic quality cue in advertising.

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Introduction

A type of advertisement that appears to be growing in usage is product endorsement by a third-party organization (TPO). For example, a recent ad for the Chrysler 300M boasted its recognition as the *Motor Trend* magazine "1999 Car of the Year." Another ad emphasizes the five-star rating of Van Kampen funds by the *Morningstar* investment guide. The apparent intent of such ads is to highlight the quality or distinctiveness of the product while at the same time enhancing the credibility of the ad by including information from an independent source. The fact that marketers use endorsements by TPOs in their ads suggests that such ads have an effect on consumer beliefs and attitudes.

There are arguments to suggest that TPO endorsements may be very effective in communications. For example, TPO endorsements may function as signals of unobservable product quality (performance, reliability, and durability of the product). By providing an evaluation of the products based on these experience characteristics, TPO endorsements may reduce consumer uncertainty and risk perception in a purchase situation. Furthermore, by ranking or rating competing products against one another, TPO endorsements may reduce consumers' need for product information gathering. In addition to these consumer benefits, TPO endorsement may help marketers with endorsed products position their products against the competition.

Although marketers are using TPO endorsements as signals of product quality in advertising, the literature is inconclusive as to the effectiveness of TPO endorsements as quality signals. Thus, there appears to be a gap in our knowledge about TPO endorsements. If TPO endorsement can function as a quality signal, what consumer perceptions might it affect? What is the magnitude of these perceptions compared with that of celebrity endorsement of the same product? What happens when a TPO endorses a brand the consumer does not highly value? This study seeks to address these questions.

It is proposed that TPO endorsement functions as a quality cue in advertising and that it deserves to join the recognized family of product quality

signals (Dawar and Parker 1994), which includes brand, price, product features or appearance, retailer reputation, warranties, and guarantees. The present study examines the effects of TPO endorsement, celebrity endorsement, and the no-endorsement condition on subject perceptions of product quality, attitude toward the manufacturer, perceived risk of purchase, and information value of the ad, as well as how such effects are moderated by source (endorser) trustworthiness and prior consumer evaluation of the endorsed brand. Two experiments, one for a tangible good (computer) and another for a service (auto insurance), are reported.

Background and Theory

Endorsement

TPO Endorsement. A TPO endorsement is defined as product advertising that incorporates the name of a TPO and a positive evaluation of the advertised product that is attributed to the TPO. Observation of current advertising suggests that TPO endorsement may take one of three general forms: (1) the product is ranked against competing products in its class on one or more criteria, (2) the product is awarded a "seal" of approval by the TPO (though how the seal differentiates among products in the class may be unclear), or (3) a subjective, noncomparative statement is made about one or more product attributes.

An example of the first form is an ad for the Warburg Pincus Capital Appreciation Fund that touts its five-star rating from *Morningstar*. The fine print explains that only the top 10% of 2,916 equity funds in the class received a five-star rating, based on risk-adjusted performance over a three-year period. In this example, the product is a mutual fund, the TPO is *Morningstar*, and the criterion is performance relative to 90-day Treasury bill return. An example of the second format is an ad for Norton AntiVirus incorporating a seal of approval (the WinList logo) from *Windows Magazine*. In this example, the product is a software package, and the TPO is *Windows Magazine*. However, no evaluative criterion is mentioned, and it is unclear how many other brands in the product class may have been awarded the WinList logo. An example of the third type is an ad for the Cannon BJC-6000 color inkjet printer incorporating a quote (with date of publication) from *PC Magazine*, "The Cannon BJC-6000 series Color Bubble Jet Printer offers economy and value—a savvy color printer package." In this example, the product is a color inkjet printer, and the TPO is *PC Magazine*. Instead of a product ranking or an ambiguous seal of approval, the endorsement is in the form of a subjective statement about the product's attributes.

The preceding description of the three general forms of TPO endorsement does not discuss differences in their visual impact, which may be important in advertising. Although the information conveyed is sometimes ambiguous, the most visually striking form is the second, the seal of approval. The stylized graphics of the seal often resemble the TPO corporate logo, triggering a memory within the observer and drawing attention. The previously discussed example of the first form contains five-pointed stars to visually inform the reader of the mutual fund's performance. Consumers are familiar with star ratings for restaurants and movies, so the star format appears to be a succinct visual conveyer of information. The quoted statement form is the least visually interesting of the three, consisting only of text. However, the example ad contained statements from five different TPOs, and the remainder of the ad copy picked up on "buzzwords" used by the TPOs to position the product in the mind of the reader. Although all three forms of TPO endorsement help position the product, the third form is probably the most flexible in its ability to address specific product attributes.

Other classifications of TPO endorsement are possible, based on the characteristics of the TPO rather than on the format of the endorsement. These include nonprofit versus for-profit TPOs, use of experts to evaluate products versus product evaluation by typical consumers, the range of products evaluated by the TPO (wide versus restricted), and the familiarity of the TPO to the consumer (well-known versus relatively unknown). The effects of TPO endorsement are assumed to vary depending on both the characteristics of the TPO and the format of the endorsement. The focus of this investigation is on TPO endorsements within advertising that rate or rank competing products on one or more criteria.

Previous Studies. Very few academic studies have examined the effects of TPO endorsements that compare products, and the results are equivocal. Peterson, Wilson, and Brown (1992) look at the ability of TPO endorsement to influence consumer purchase intention and attitudes toward the ad, brand, and company for six different goods/services. The TPO was operationalized as a fictional market research company, and the endorsement stated that a fictional brand had been rated number one in overall customer satisfaction based on survey results. Advertisements containing TPO endorsements were found to be no more effective than ads not containing endorsements. Recently, Dean (1999) has studied the effects of ads con-

taining a "Best Buy" endorsement from *Consumer Reports* magazine on respondent perception of product quality, product uniqueness, manufacturer esteem, and corporate citizenship. Compared with ads that do not contain endorsements, perceptions of all variables except corporate citizenship were significantly enhanced in the presence of TPO endorsement. Perhaps the use of a fictional TPO and brand in the first study resulted in discounting of the endorsement, which may partially explain the different results of the two studies.

TPO Endorsement and the Endorsement Family. The endorsement literature has identified three basic types of endorsers (Fireworker and Friedman 1977; Frieden 1984; Friedman and Friedman 1979): celebrity spokesperson, expert, and typical consumer. These three categories generally parallel, respectively, the three dimensions of source communication identified in the literature (Wilson and Sherrell 1993): physical or social attractiveness, credibility, and perceived similarity to the receiver. Conceptually, TPO endorsements appear to be related most closely to expert endorsements. That is, TPOs employ experts to analyze products and write product reviews, and a TPO message most likely would persuade through the credibility dimension rather than perceived attractiveness or similarity to the viewer (the latter attributes are more applicable to individuals than to organizations). Other authors agree that the attractiveness dimension does not apply to corporations (Goldsmith, Lafferty, and Newell 2000).

Despite the similarity between expert and TPO endorsements, the two appear to differ in several respects. First, TPOs may be viewed as more independent than individual experts. Many TPOs analyze and review products as part of their ongoing business and publish their results in consumer magazines. In addition, some TPOs are nonprofit. Overall, most consumers would likely view the relationship between a TPO and a product manufacturer as remote. In contrast, individual experts are probably perceived to have a close relationship with the manufacturers of products they endorse and, perhaps, to receive direct compensation for their endorsement. Second, TPOs are probably perceived to have access to testing facilities, equipment, and information to a greater degree than do individual experts. Third, because TPOs are probably perceived to have more than one "expert" on staff, TPO endorsement may imply that a consensus was reached prior to endorsement. Such a check-and-balance system may not be attributed to an individual expert.

Drawing upon the work of Kelman (1961), Friedman and Friedman (1979) propose that celebrity endorsers persuade through the process of *identification* and expert endorsers influence through the process of *internalization*. The process of identification occurs when a person adopts an attitude because it is consistent with his or her self-definition or reference group image. The process of internalization occurs when the receiver adopts an attitude because it is useful for the solution of a problem or demanded by his or her value system. On the basis of this difference in the underlying process, Friedman and Friedman (1979) propose that endorser effectiveness varies by product type. Specifically, they propose that (1) celebrity endorsers are most effective for products high in psychological or social risk; (2) expert endorsers are most effective for products high in financial, performance, or physical risk; and (3) typical consumers are most effective for products ranking low in risk. All of these hypotheses were supported by experimental results.

The process of internalization suggests that expert endorsers (and by extension, TPO endorsements) persuade through the credibility dimension. That is, the source (endorser) is perceived to have credible information that may be used to solve the consumer's problem. Credibility has the subdimensions of expertise (expert knowledge) and trustworthiness (unbiased communication of knowledge). Both dimensions may contribute to the persuasion effect. McGinnies and Ward (1980) find that an expert who was also perceived to be trustworthy generated the most opinion change, but a trustworthy individual was persuasive, whether expert or not. Woodside and Davenport (1974) find that an expert salesperson induced a greater number of customers to purchase a product than did a nonexpert salesperson. Finally, Ohanian (1991) finds that expertise (rather than trustworthiness or attractiveness) had the greatest effect on purchase intention.

TPO Endorsement—Theory Development

Compared with celebrity and typical consumer endorsements, TPO endorsement is believed to be unique in its ability to signal quality and inform the consumer. To explain this assertion, we draw on signaling theory and the economics of information framework.

Signaling Theory. This theory states that manufacturers may attempt to reduce consumer uncertainty and risk perception by sending prepurchase signals of unobservable product quality. Warranty, manufacturer reputation, and price are examples of such signals (Boulding and Kirmani 1993; Shimp and Bearden 1982). To be credible, however, signals must contain a "bonding" component, a potential cost to the sender if the signal is false and the product is of low quality (Ippolito 1990).

The TPO endorsements appear to be quality signals with high bond cost. In the case of a false quality signal,

both the TPO and the manufacturer would suffer. For the TPO, this cost would be a loss of reputation, perhaps the most valuable asset a TPO possesses. From an attribution theory perspective, TPO endorsement should enhance the perceived trustworthiness of the ad and the quality signal (provided the TPO is truly independent of the marketer). That a TPO is willing to "go to bat" for an unrelated marketer and suffer potential costs suggests that a TPO endorsement will be perceived by consumers as a valued signal of product quality. In contrast, celebrity and typical consumer endorsers are probably perceived to have a closer relationship with the marketer (they are often directly compensated). In addition, because celebrity and typical consumer endorsers do not hold themselves out to be experts in product evaluation, they stand to lose less than TPOs if it is determined that the products they endorse are of poor quality. For example, a celebrity athlete who happens to endorse a poor quality, nonathletic product would probably not suffer a loss of perceived athletic status. However, a TPO making the same mistake would suffer a severe loss of reputation because the TPO is expected to have expertise in product analysis.

Economics of Information. The consumer search for product information has costs (Nelson 1970). There are time and travel costs to visit stores and inspect goods and time costs to read advertising or ask other consumers about their experience with a product. Consumers will inform themselves about marketplace offerings only to the point that the marginal cost of gathering more information equals or exceeds the marginal return (Nelson 1974). Although buyers differ in their perceived costs and benefits of search, a large proportion of shoppers exhibit minimum information search effort (Claxton, Fry, and Portis 1974).

In their search, consumers are particularly attracted to "chunks" of information about products that efficiently convey meaning (Jacoby, Szybillo, and Busato-Schach 1977). By rating or ranking competing products on experience and credence characteristics, it is possible that a TPO endorsement may function as a "chunk" of information about a product and be perceived as a cost-efficient guide to product quality. In contrast, celebrity and typical consumer endorsements do not usually rate or rank products; thus, the amount of product comparative information provided to the consumer is less than for TPO endorsements.

Hypotheses

On the basis of source characteristics, signaling theory, and the economics of information framework, we propose that, compared with celebrity endorsements or the no-endorsement condition, TPO endorsements for products with high financial risk and low psychological risk will (1) enhance product quality perception and (2) be perceived as more informative. As a consequence of enhanced product quality perceptions, it is likely that the TPO endorsement will also lower the perceived risk of purchase and lead to a more favorable attitude toward the manufacturer of the product.

The rationale for choosing to compare TPO endorsements with celebrity endorsements relates to the fact that the two types of endorsements differ in the process by which they persuade (Friedman and Friedman 1979); thus, they provide a theoretic contrast. Celebrity endorsers persuade through the process of identification; expert endorsers (and by extension, TPO endorsements) influence through the process of internalization. Friedman and Friedman (1979) find that expert endorsements were most effective for products high in financial or performance risk, whereas celebrity endorsements were most effective for products high in psychological or social risk. With the similarity of TPO endorsements to expert endorsements and because the two products chosen for this study are both relatively expensive, Friedman and Friedman's (1979) work suggests that TPO endorsements will outperform celebrity endorsements. That is, endorsements operating through the process of internalization are expected to be more effective than endorsements operating through the process of identification (for expensive utilitarian products).

The basis for internalization of a TPO recommendation is most likely the credibility (expertise, trustworthiness) of the source. On these dimensions, TPO endorsements are believed to be superior to celebrity endorsements. First, experts (and by extension, TPOs) are probably perceived to have a higher level of expertise than do celebrities (excluding celebrities that are both experts and celebrities). Thus, subjects viewing a TPO endorsement are expected to have more favorable beliefs about product quality than are subjects viewing a celebrity endorsement for the same product. Second, the perceived trustworthiness of TPO endorsements should be greater than that of celebrity endorsements. The independence of TPOs from marketers and the strong bonding component to the quality signal of the TPO suggests that TPO endorsements will be perceived as very trustworthy. In contrast, celebrity endorsements have been found to have generally low believability (O'Mahony and Meenaghan 1997/98).

On the basis of superior source credibility and the greater ability of TPO endorsement to signal quality and inform consumers, we propose that TPO endorsement will outperform celebrity endorsement on the

dependent variables of perceived quality, attitude toward the manufacturer, purchase risk, and information value of the ad. A no-endorsement condition is included as a control, and TPO endorsement is hypothesized to outperform this control because of the ability of the former to signal quality and inform. Thus, the mean responses for ads containing TPO endorsements are hypothesized to be significantly more favorable than the means for celebrity endorsements or the no-endorsement condition. Therefore,

H1: Subjects exposed to an ad containing a TPO endorsement for a desktop computer or auto insurance will show higher scores on measures of (a) perceived quality, (b) attitude toward the manufacturer, and (c) information value of the ad and lower scores on (d) purchase risk than will subjects exposed to either a celebrity endorsement or a no-endorsement ad for the same brand.

Moderators of TPO Endorsement Effects

Source (endorser) trustworthiness and prior consumer evaluation of an endorsed brand are proposed to interact with endorsement to moderate endorsement effectiveness.

Trustworthiness. As mentioned previously, TPO endorsement is believed to persuade through the credibility dimension rather than through source attractiveness or similarity to the viewer. Indeed, the ability of a TPO endorsement to signal quality and inform is based on both expertise and trustworthiness. Disclosure that a TPO lacks expertise or is untrustworthy may be expected to affect consumer response to TPO endorsement. Because we use the name of a real-life TPO in the endorsements for this study, downward manipulation of TPO expertise appeared unrealistic. However, the real-life TPO was a for-profit organization, and so it seemed vulnerable on the trustworthiness dimension. We investigated whether disclosure of a possible reporting bias for the TPO would cause the consumer to discount the endorsement.

Endorser trustworthiness is proposed to interact with endorsement. The basis for this interaction lies in the different preexisting assumptions consumers are likely to have about the trustworthiness of celebrities and TPOs. Consumers apparently believe celebrities are well compensated for their endorsements and therefore probably biased. For example, when it was revealed that Frank Sinatra was compensated at the rate of $1.00 per year for his endorsement of Chrysler automobiles, consumers evaluated Chrysler cars more positively than when no rate of pay was specified (Folkes 1988). Consumers attributed personal gain to be Sinatra's motivation for the endorsement unless evidence to the contrary was presented. However, consumers probably believe TPOs to be independent and unbiased until proven otherwise. Because of these different assumptions, a trustworthiness manipulation may have a differential effect on TPO endorsements and celebrity endorsements. Disclosure that a TPO profits from an endorsement is likely to lead to a severe attitude correction, whereas a similar disclosure for a celebrity may lead to little or no attitude correction. That is, mean perceived quality and information value of the ad may increase from celebrity endorsement to TPO endorsement in high trustworthiness conditions, but mean perceived quality and information value may decrease from celebrity to TPO endorsement with low trustworthiness. This interaction is proposed to affect only the dependent variables of perceived quality and information value of the ad. This limit is based on the belief that attitude toward the manufacturer and purchase risk exist as global attitudes and are probably more resistant to downward manipulation. Thus,

H2: The endorsement cue will interact with the trustworthiness cue for computers and auto insurance, such that there will be a decrease in mean response on measures of (a) perceived quality and (b) information value of the ad from celebrity endorsement to TPO endorsement in the condition of low credibility and an increase in mean response for the same dependent variables from celebrity endorsement to TPO endorsement in the condition of high credibility.

Prior Evaluation of the Brand. Brand is a well-recognized extrinsic quality cue for products (Aaker 1996; Dawar and Parker 1994; Zeithaml 1988). With reference to TPO endorsement, an intriguing question is what would happen if a respected TPO endorsed a brand the consumer did not highly value? That is, the two cues would be in conflict, suggesting cognitive dissonance.

A prediction of how the dissonance resulting from incongruous cue pairings will be resolved is suggested by the work of Wu and Shaffer (1987). These authors argue that consumers with direct versus indirect brand experience will differ in their susceptibility to a counterattitudinal message. That is, an attitude based on direct experience is believed to be more clearly and confidently held than an attitude formed on the basis of hearsay. Thus, attitudes formed from direct experience are believed to be resistant to counterattitudinal influence. However, attitudes

based on indirect experience may be affected by the perceived expertise and/or trustworthiness of the communicator and possibly changed.

Wu and Shaffer's (1987) work thus provides a rationale for an interaction hypothesis. That is, if brands are classified into high and low (on the basis of prior brand evaluation), consumers may be less likely to have direct experience with low brands. Consumers might not purchase these brands because they are not well known or because they are perceived to perform poorly. This indirect brand experience group may be susceptible to the persuasive influence of positive endorsements by TPOs, such that the increase in perceived quality from celebrity endorsement to TPO endorsement is greater for lowly regarded brands than for highly regarded brands. A possible mechanism is that endorsement of a low brand results in a contrast effect in the mind of the consumer, which prompts elaboration of the message and brand attitude correction to compensate for discovered bias. Conversely, direct experience consumers who hold an unfavorable opinion of the brand are expected to resist persuasion by TPO endorsement.

A brand by endorsement interaction effect is only proposed for perceived quality. This dependent variable appears to be the most likely to be the object of the attitude correction process. Thus,

H3: The endorsement cue will interact with the brand cue for computers and auto insurance, such that the increase in mean response from celebrity endorsement to TPO endorsement on the dependent variable of perceived quality will be greater for lowly regarded rather than highly regarded brands.

Methods

Two factorial experiments, each a 2 (TPO versus celebrity endorsement) × 2 (level of trustworthiness) × 2 (level of brand evaluation) plus 2 (brand manipulation only control cells) design, were conducted as main studies. There was one experiment each for a tangible good and a service. These experiments were preceded by three pretests. In all cases, university students enrolled in undergraduate business courses were used as subjects; they received extra credit for their participation. The same subjects (one class) participated in all three pretests.

Pretests

Pretest 1. The objective of this pretest was to screen a variety of goods and services to select appropriate products for the main studies. The primary screening criterion was the perceived risk of choosing the wrong brand to purchase from within the product category. Eleven products were screened by 33 subjects. A desktop computer was rated the riskiest good, and auto insurance was rated the riskiest service.

Pretest 2. The primary objective of this pretest was to screen brands of desktop computers and auto insurance for brand evaluation to operationalize the (high, low) brand evaluation variable in the main studies. Brands were compared on the basis of (1) subject awareness of brand, (2) the degree to which the subject would consider buying one brand over others, and (3) the degree to which the subject would recommend one brand over others. A total of 19 brands was screened by 43 subjects. For both product categories, brands tended to segregate into high, middle, and low brand regard groups. To avoid a ceiling effect (i.e., a favorable TPO endorsement being unable to raise the perception of a brand with an already high evaluation), brands to operationalize the (high, low) brand variable were chosen from the middle and low groups, respectively. Thus, Hewlett-Packard and Acer were selected as the high and low computer brands, respectively. For auto insurance, GEICO and Shelter were chosen as the high and low brands, respectively.

Tests for the (high, low) TPO trustworthiness operationalization were also conducted during Pretest 2. Subjects were presented with three descriptions of TPOs and asked to rate each on a seven-point semantic differential scale: a nonprofit TPO that refused paid advertising and product donation, a for-profit TPO that willingly accepted paid advertising and product donation of items to be evaluated, and a for-profit TPO that accepted paid advertising, product donation, and payments of an undisclosed amount from industry lobby groups to assist the TPO in its "mission to inform the public" about goods and services. The means for the three TPO trustworthiness descriptions were, in the same order as presented, 6.24, 3.64, and 3.53. Paired t-tests revealed significant differences between descriptions 1 and 2 and 1 and 3, but not between 2 and 3. Description 2 was chosen over 3 to be the low trustworthiness manipulation because its wording was more similar in length to 1 than was the wording of 3.

Finally, subjects were presented with five TPO names and asked to rate each on its familiarity and the degree to which the subject would expect to see product reviews about personal computers and auto insurance in the TPO's magazine. The five TPO names were *Consumer Reports*, *Consumer's Digest*, *Consumers' Review*, *Roper's Shopping Guide*, and *Best's Prod-*

uct Review. The first two names on the list are real-life TPOs that publish magazines, whereas the last three names on the list are fictitious. When rated on familiarity, the names appeared to segregate into two groups, a better known group of two (*Consumer Reports* and *Consumer's Digest*, means of 5.80 and 4.67, respectively) and a mostly unknown group of three (means from 2.76 to 2.40). Subjects did not appear confused by the similarity in titles of *Consumer's'Review*, *Consumer Reports*, and *Consumer's Digest* and were able to distinguish the latter two real-world titles from the fictitious former. The expectations of subjects to see reviews of personal computers and auto insurance in the five TPO magazines generally paralleled their familiarity responses. *Consumer's Digest* was chosen as the TPO name for the main studies because it was somewhat familiar, yet not so familiar that it would complicate the low trustworthiness manipulation and thereby be unbelievable.

Pretest 3. The objective of this pretest was to screen a sample of names of celebrities for familiarity and determine the degree to which each celebrity would be effective in endorsing desktop computers or auto insurance (the "match-up" hypothesis; Kamins 1990). A list of 10 potential celebrity endorsers was generated by asking a convenience sample of students, "Can you think of any celebrity who would be effective in selling (computer/auto insurance) by endorsing the (computer/auto insurance) in an advertisement?" A group of 42 subjects was then asked to rate each name on seven-point semantic differential scales for familiarity and effectiveness in endorsing each of the two products. Tom Brokaw and Mario Andretti were selected as celebrity endorsers for computers and auto insurance, respectively. Bill Gates was not chosen as a computer endorser because he may be perceived as both expert and celebrity, which may confound the distinction being drawn here between celebrity and TPO endorsements.

Ad Stimuli

Computer Study. Stimuli were presented individually to students in a manila folder containing a mock 71/2 by 9 inch black-and-white print advertisement on one inside surface and a questionnaire on the other.

The no-endorsement ads contained the generic image of a desktop computer, brand logo (Hewlett-Packard or Acer), and four intrinsic cues (CPU speed, memory capacity, hard drive capacity, and maximum modem transfer speed). To isolate the endorsement effect, extrinsic quality cues other than brand and endorsement (e.g., price, country of origin, warranty, and retailer name) were excluded from all ad stimuli.

Celebrity endorsement ads contained the information in the no-endorsement condition plus banners at the top and bottom of the ad. The top banner asked the question "What PC do you use at home?" with a brand answer (Hewlett-Packard or Acer) attributed to Tom Brokaw, who was identified as an NBC News anchor. The bottom banner explained that Brokaw "accepted monetary compensation for this endorsement, in addition to receiving a free (Hewlett-Packard/Acer) computer" (low trustworthiness) or that "Mr. Brokaw received total compensation of $1.00 for this endorsement—he paid for his (Hewlett-Packard/Acer) computer with his own funds" (high trustworthiness).

The TPO endorsement ads contained the information in the no-endorsement condition plus top and bottom banners. The top banner claimed that the advertised desktop computer had been "rated #1 in overall performance by *Consumer's Digest* magazine." The bottom banner explained that the rating was "based on speed, convenience, upgradability, and reliability of 11 comparable brands/models tested," along with the publication date of the review article. This banner also stated that Consumer's Digest is a "nonprofit/for-profit organization that refuses/accepts paid advertising and donation of computers from Hewlett-Packard/Acer" (trustworthiness manipulation). The combinations of ad elements resulted in 10 experimental cells for the computer study.

Auto Insurance Study. This study was essentially a replication of the computer study. The same experimental design and method of stimuli presentation were used. Ad elements from the first study were adapted for a service product.

Ads in the no-endorsement condition contained an image of an isolated vehicle on a dark and lonely road during a thunderstorm with the adjacent caption "We'll always be there for you" and an insurance brand logo (GEICO/Shelter). As in the first study, extrinsic quality cues other than brand and endorsement (e.g., price, guarantees) were excluded from ad stimuli. Also, because a pure service was being advertised, there was an absence of intrinsic quality cues.

Celebrity auto insurance ads contained the information in the no-endorsement ads plus banners at the top and bottom. The top banner asked the question "Who insures your family car?" with a brand answer (GEICO/Shelter) attributed to Mario Andretti, who was identified as an Indianapolis 500 winner. The bottom banner explained that Andretti "accepted monetary compensation for this endorsement, in addition to receiving free GEICO/Shelter auto insurance" (low trustworthiness) or that "Mr. Andretti

received total compensation of $1.00 for this endorsement—he purchases GEICO/Shelter insurance at the regular rate" (high trustworthiness).

The TPO endorsement ads contained the information in the no-endorsement conditions plus banners at the top and bottom. The top banner claimed that the advertised auto insurance had been "rated #1 in claims satisfaction by *Consumer's Digest* magazine." The bottom banner explained that the rating was based on "the claims experience of 32,000 policyholders of 26 different auto insurance companies," along with the publication date of the review article. This banner also stated that Consumer's Digest is a "nonprofit/for-profit organization that refuses/accepts advertising and donations from GEICO/Shelter insurance" (trustworthiness manipulation). Similar to the computer study, combinations of ad elements resulted in 10 experimental cells.

Dependent Variables

Perceived product quality is defined as superiority of the product, relative to alternatives, for its intended use (Zeithaml 1988). Questionnaire items addressing this construct asked whether the product was "superior," was "the best in its class," "will perform better than" similar products, and "is definitely a quality product." Attitude toward the manufacturer is defined as the degree to which the manufacturer is held in high regard, is trusted by, and respected by consumers relative to other manufacturers in the product category. Items measuring this construct asked if the subject held the product manufacturer/service provider "in high regard" and whether the subject "respected," "trusted," and "admired" the manufacturer/service provider. Perceived risk of purchase is defined as the level of uncertainty about the outcome and consequences of product purchase. This construct was measured with items asking if purchase of the advertised product would be "a wrong choice" or "a risky choice," whether a consumer would likely be "unsatisfied" with the purchase of the product, and the likelihood that the advertised product would "not meet the expectations" of a consumer. Information value is defined as the degree to which information provided in the ad completes the information search process for the consumer and saves the consumer time and effort in forgoing additional search. Questionnaire items tapping this construct asked whether the information in the ad was sufficient to allow subjects to "predict the performance" of the advertised product, "evaluate the quality" of the product, "estimate how satisfied" they would be with the product, and "compare the product to other brands." All dependent variables were measured using seven-point scales and computed as the average of four scale items. The reliability coefficients for these scales are reported in the next section.

Results of Computer Study

Sample Size and Manipulation Checks

All 250 folders distributed were returned (25 folders per cell in the experimental design). However, 19 subjects missed the endorsement manipulation check. That is, they were unable to recall from memory whether the ad they had just responded to contained an endorsement, whether the endorser was a person or a magazine, or whether the endorser was nonprofit or for-profit. Also, data in 2 folders were incomplete. With these 21 questionnaires deleted from further analysis, data from 229 questionnaires were entered, and this constituted the final sample (54.6% of respondents were women, 45.4% men). Each of the 10 experimental cells contained data from a minimum of 20 to a maximum of 25 respondents. Approximately 88% of subjects (201 of 229) reported having a computer for their own personal use, and 60% of those who had a computer reported participation in the purchase choice of computer brand and model.

Brand manipulation was checked by assessing subjects' evaluations of the advertised brands. If the brand manipulation worked, respondents should indicate higher awareness and higher intent to purchase and recommend the high brand compared with the low brand. As evidence of successful manipulation, brand evaluation means for subjects exposed to the high and low brands were, respectively, 5.20 and 2.58. These two groups were significantly different on the brand equity variable ($t=13.64$, $df=227$, $p<.001$). The trustworthiness manipulation was checked by a series of three questionnaire items that inquired about the "believability," "truthfulness," and "honesty" of the ad/advertiser. The means of the groups exposed to the high and low trustworthiness conditions were, respectively, 5.01 and 4.48. These two groups were significantly different on the believability variable ($t=2.78$, $df=179$, $p=.006$), though the difference is much less striking than that for brand. For the high trustworthiness condition, the mean believability scores of TPO and celebrity endorsers were not significantly different (5.21 and 4.80, respectively, $t=1.52$, $df=87$, $p=.134$). The mean believability scores of TPO and celebrity endorsers were also similar in the low trustworthiness condition (4.53 and 4.44, respectively, $t=.32$, $df=90$, $p=.747$).

Table 1
Reliability of Constructs

Construct	Cronbach's Alpha	Construct Reliability	Average Variance Extracted
Computer Study (n=229)			
QUALITY	.87	.87	.63
INFORM	.80	.82	.54
ATTM	.92	.92	.75
RISK	.88	.88	.65
Insurance Study (n=237)			
QUALITY	.88	.88	.67
INFORM	.87	.88	.65
ATTM	.90	.90	.70
RISK	.87	.87	.63

Notes: Each construct was measured using four items: QUALITY=perceived product quality, INFORM=information value of the ad, ATTM=attitude toward the manufacturer, and RISK=perceived risk of purchase.

The last check was a series of questions asking subjects to rate their familiarity with the endorser and estimate the expertise of that endorser with computers. Expertise was defined for respondents as accuracy and breadth of knowledge of a subject. On 1 to 7 scales, mean familiarity with *Consumer's Digest* and Tom Brokaw for subjects exposed to these endorsers was, respectively, 4.75 and 4.91. The familiarity of these endorsers to their respective groups does not significantly differ (t=.72, df=179). Mean expertise ratings of *Consumer's Digest* and Tom Brokaw for groups exposed to these endorsers were, respectively, 4.69 and 3.11. The two groups significantly differ in level of perceived expertise of the endorser (t=6.90, df=178, $p<.01$).

Scales

The sixteen individual scale items from the four dependent variables were entered into exploratory factor analysis with principal components extraction and Varimax rotation. Four components were returned, accounting for 73% of total variance. Examination of the rotated component matrix revealed a relatively simple structure, with each scale item loading most heavily on its intended construct. The sixteen items were also entered into confirmatory factor analysis (LISREL 8, Joreskog and Sorbom 1996). Using a covariance matrix as input, constructs were modeled as four correlated first-order factors with four manifest indicators per construct. Overall model fit was as follows: χ^2=166.89 at 98 degrees of freedom ($p<.001$), root mean square error of approximation (RMSEA)=.056, goodness-of-fit index (GFI)=.92, adjusted goodness-of-fit index (AGFI)=.89, non-normed fit index (NNFI)= .96, and comparative fit index (CFI)=.97. Except for the chi-square statistic and the AGFI, these fit indices indicate an acceptable level of fit (Hair et al. 1995). Cronbach's alpha reliability, construct reliability (from confirmatory factor analysis), and average variance extracted (AVE) for each construct are shown in Table 1. All reliabilities were greater than .70, indicating satisfactory levels of internal consistency (Nunnally and Bernstein 1994). Each construct AVE was greater than the .50 criterion. Bivariate correlations among the dependent variables (from confirmatory factor analysis) were .48 for perceived quality/attitude toward the manufacturer, -.50 for perceived quality/purchase risk, .64 for perceived quality/information value of the ad, -.47 for attitude toward the manufacturer/purchase risk, .48 for attitude toward the manufacturer/information value of the ad, and -.36 for purchase risk/information value of the ad. Discriminant validity among constructs was assessed by the stringent criterion established by Fornell and Larcker (1981). That is, if the square of the correlation between two constructs (ϕ^2) is less than the average AVE for the two constructs, discriminant validity is supported. This criterion was met for all pairs of constructs in the model.

Data Analysis

The four dependent variables were entered into MANOVA with trustworthiness, brand, and endorsement as independent categorical variables. Box's M test was nonsignificant at p=.298, which indicates equality of the variance/covariance matrices of the multiple dependent variables across treatment groups.

Table 2
Results of Manova, Computer Study, n=181

	Multivariate					Univariate			
Effect	Wilks' λ	Effect Size	df	F-Value	Significance	QUALITY df=1/173	ATTM df=1/173	RISK df=1/173	INFORM df=1/173
T	.987	.013	4/170	.566	.688	2.137	.273	1.075	.677
						.012	.002	.006	.004
B	.819	.181	4/170	9.384	.000	12.677**	36.448**	5.358*	6.626*
						.068	.174	.030	.037
E	.829	.171	4/170	8.795	.000	31.388**	4.156*	1.281	7.542*
						.154	.023	.007	.042
TxB	.987	.013	4/170	.559	.693	.003	1.507	.016	.268
						.000	.009	.000	.002
TxE	.976	.024	4/170	1.026	.395	1.423	.488	4.015*	.846
						.008	.003	.023	.005
BxE	.967	.033	4/170	1.472	.213	4.086*	1.138	.401	.012
						.023	.007	.002	.000
TxBxE	.983	.017	4/170	.740	.566	.493	1.897	.065	.448
						.003	.011	.000	.003

Notes: QUALITY=perceived quality, ATTM=attitude toward the manufacturer, RISK=purchase risk, INFORM=information value of the ad, T=trustworthiness, B=brand, and E=endorsement. For cells that contain two values, the top is an F-value, and the bottom is an effect size.
*$p<.05$.
**$p<.01$.

As indicated in Table 2, all two- and three-way multivariate interactions were nonsignificant, which allows our interpretation to proceed to the main effects. Significant main effects were found for brand (Wilks' λ=.819, F=9.384, df=4/170, $p<.001$) and endorsement (Wilks' λ=.829, F=8.795, df=4/170, $p<.001$) but not trustworthiness (Wilks' λ=.987, F=.566, df=4/170, $p=.688$). The multivariate effect sizes for brand and endorsement (η^2 of .181 and .171, respectively) were large enough to be significant in both a practical and a statistical sense. The endorsement main effect was attributable to perceived quality (F=31.388, df=1/173, $p<.001$), attitude toward the manufacturer (F=4.156, df=1/173, $p=.043$), and information value of the ad (F=7.542, df=1/173, $p=.007$). The brand main effect was attributable to all four dependent variables: perceived quality (F=12.677, df=1/173, $p<.001$), attitude toward the manufacturer (F=36.448, df=1/173, $p<.001$), purchase risk (F=5.358, df=1/173, $p=.022$), and information value of the ad (F=6.626, df=1/173, $p=.011$).

Hypotheses Tests

H1 proposed that subjects exposed to a TPO endorsement for a desktop computer would provide higher scores on measures of perceived quality (H1a), attitude toward the manufacturer (H1b), and information value of the ad (H1c) and lower scores on purchase risk (H1d) than would subjects exposed to either a celebrity endorsement or the no-endorsement condition for the same brand. As shown in Table 3, H1a and H1c were supported. Perception of product quality for a TPO endorsement (mean=4.81) was significantly higher than that for a celebrity endorsement (mean=3.81) or the no-endorsement condition (mean=3.46). Also, information value of the ad for the TPO endorsement (mean=4.43) was significantly higher than that for the celebrity endorsement (mean=3.92) or the no-endorsement condition (mean=3.64). H1b and H1d were not supported. That is, for the dependent variables of attitude toward the ad and purchase risk, a TPO endorsement resulted in means in the appropriate direction, but the differences were not significant.

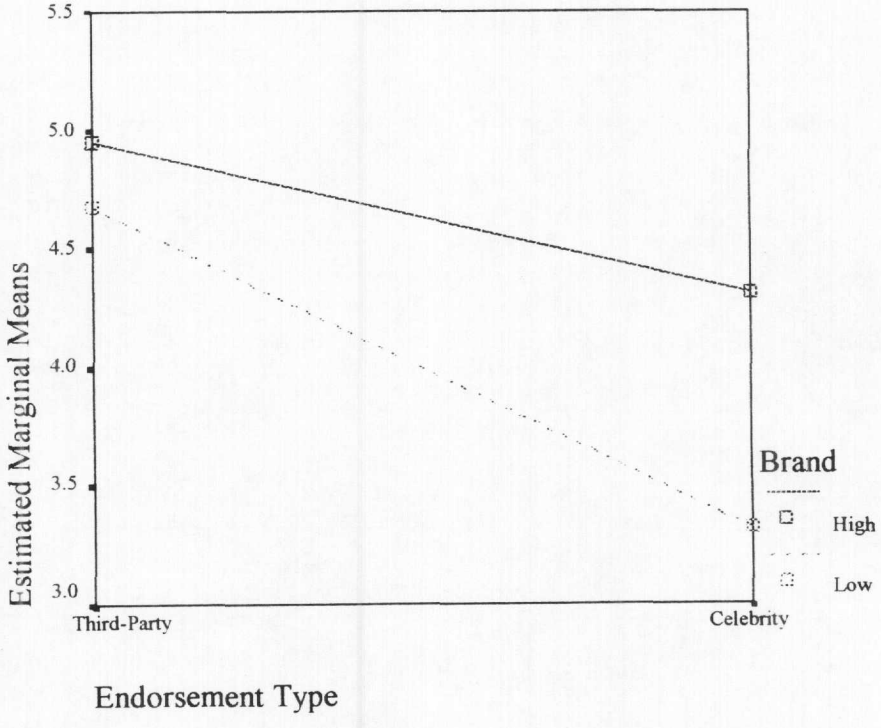
H2 predicted that the trustworthiness cue would interact with the endorsement cue for perceived quality (H2a) and information value of the ad (H2b). However, there was no significant multivariate trustworthiness by endorsement interaction, nor was there a significant univariate trustworthiness by endorsement interaction for either of the hypothesized variables. H3 proposed a brand by endorsement inter-

Table 3
Test of Hypothesis 1: Computer Study

	No Endorsement (NE) n=48	*Celebrity Endorsement (C) n=93*	*TPO Endorsement (TPO) n=88*	*Significant Mean Differences*
QUALITY	3.46	3.81	4.81	NE, C<TPO
	.94	1.22	1.28	
ATTM	3.78	3.64	3.99	None
	1.22	1.36	1.41	
RISK	3.52	3.40	3.19	None
	1.08	1.15	1.26	
INFORM	3.64	3.92	4.43	NE, C<TPO
	1.43	1.26	1.29	

Notes: QUALITY=perceived quality, ATTM=attitude toward the manufacturer, RISK=purchase risk, and INFORM=information value of the ad. Significant differences between groups are Student-Newman-Keuls tests at p=.05 or less. The top value in the cell is the mean, and the bottom value is the standard deviation.

Figure 1
Brand by Endorsement Interaction for Perceived Quality, Computer Study



action for perceived quality. As shown in Table 2, this hypothesis was supported (F=4.086, df=1/173, p=.045). A graphical depiction of the brand by endorsement interaction for perceived quality is shown in Figure 1. The increase in perceived quality mean response, going from celebrity to TPO endorsement, is 1.38 for the low brand as opposed to an increase of .64 for the high brand.

Results of Insurance Study

Sample Size and Manipulation Checks

All 263 folders distributed were returned. However, 18 respondents missed the endorsement manipulation check (they were unable to recall from memory and categorize the endorsement condition to which they were exposed). An additional 8 folders were deleted after consent form checks indicated that these same subjects had responded in two separate data gathering sessions. For all double responders, the first response was retained, and the second was discarded. Data from 237 questionnaires were entered, and this constituted the final sample (53.6% of respondents were women, 46.4% men). Each of the 10 experimental cells contained data from a minimum of 21 to a maximum of 26 respondents. Approximately 61% of subjects (144 of 237) reported having an auto insurance policy in their name. Also, 35% of those who had their own insurance indicated that they had actively chosen the insurance company rather than blindly following the choice of their parents, a family member, or a friend.

Brand and endorsement trustworthiness manipulation checks were similar to those in the first experiment. Brand evaluation means for subjects exposed to the high and low brands were 4.47 and 3.18, respectively; these means are significantly different (t=6.66, df=191, p<.001). The trustworthiness manipulation was also successful. The believability means of the groups exposed to the high and low trustworthiness conditions were, respectively, 4.77 and 4.21. These two groups are significantly different in trustworthiness perception (t=3.14, df=191, p<.005). In the high trustworthiness condition, the believability means of the TPO and celebrity endorser groups were not significantly different (4.96 and 4.51, respectively, t=1.77, df=93, p=.08). The believability means of TPO and celebrity endorsers were also similar in the low trustworthiness condition (4.33 and 4.28, respectively, t=.18, df=96, p=.86).

The last checks were for familiarity and perceived expertise of endorsers for those groups exposed to ads containing endorsements. On 1 to 7 scales, mean familiarity with *Consumer's Digest* and Mario Andretti was, respectively, 4.64 and 4.08. The two groups significantly differ on endorser familiarity (t=2.18, df=191, p<.05). Mean perceived expertise of *Consumer's Digest* and Mario Andretti for groups exposed to these endorsers was, respectively, 4.42 and 3.59. The two groups significantly differ in their levels of perceived expertise of the endorser (t=3.41, df=191, p<.01).

Scales

The sixteen individual scale items from the four dependent variables were entered into exploratory factor analysis. Varimax rotation with principal components extraction returned four components accounting for 75% of total variance. Examination of the rotated component matrix showed scale items loading most heavily on their hypothesized constructs. The sixteen items were also entered into confirmatory factor analysis (LISREL 8, Joreskog and Sorbom 1996). Using a covariance matrix as input, constructs were modeled as four correlated first-order factors with four manifest indicators per construct. Overall model fit was as follows: χ^2=185.53 at 98 degrees of freedom (p<.001), RMSEA=.062, GFI=.91, AGFI=.87, NNFI=.96, and CFI=.97. Except for the chi-square and AGFI, these fit indices are within acceptable limits (Hair et al. 1995). Reliability and AVE for each construct appear in Table 1. All reliabilities were greater than .70 (Nunnally and Bernstein 1994), and each construct AVE was greater than the .50 criterion. Bivariate correlations among the dependent variables (from confirmatory factor analysis) were .61 for perceived quality/attitude toward the manufacturer, -.35 for perceived quality/purchase risk, .64 for perceived quality/information value of the ad, -.43 for attitude toward the manufacturer/purchase risk, .67 for attitude toward the manufacturer/information value of the ad, and -.35 for purchase risk/information value of the ad. Discriminant validity among constructs (using the ϕ^2 <average AVE test) was supported for all pairs of constructs.

Data Analysis

The four dependent variables were entered into MANOVA with trustworthiness, brand, and endorsement as independent variables. Box's M test was nonsignificant at p=.418, which indicates multivariate equality of variance/covariance matrices across treatment groups.

As indicated in Table 4, all two- and three-way multivariate interaction terms were nonsignificant. Similar to the results of the first study, significant main effects were found for brand (Wilks' λ=.893, F=5.438, df=4/182, p<.001) and endorsement (Wilks' λ=.825, F=9.660, df=4/182, p<.001) but not trustworthiness (Wilks'

Table 4
Results of Manova, Insurance Study, n=193

	Multivariate					Univariate			
Effect	*Wilks' λ*	*Effect Size*	*df*	*F-Value*	*Significance*	*QUALITY df=1/185*	*ATTM df=1/185*	*RISK df=1/185*	*INFORM df=1/185*
T	.959	.041	4/182	1.923	.108	6.089*	1.505	1.066	4.892*
						.032	.008	.006	.026
B	.893	.107	4/182	5.438	.000	5.347*	4.128*	18.536**	.606
						.028	.022	.091	.003
E	.825	.175	4/182	9.660	.000	20.237**	2.767	5.918*	25.832**
						.099	.015	.031	.123
TxB	.966	.034	4/182	1.606	.175	.417	.586	2.135	.519
						.002	.003	.011	.003
TxE	.977	.023	4/182	1.070	.373	3.133	2.376	.064	1.361
						.017	.013	.000	.007
BxE	.984	.016	4/182	.726	.575	.037	1.076	.177	.169
						.000	.006	.001	.001
TxBxE	.971	.029	4/182	1.374	.245	.048	1.488	.178	.604
						.000	.008	.001	.003

Notes: QUALITY=perceived quality, ATTM=attitude toward the manufacturer, RISK=purchase risk, INFORM=information value of the ad, T=trustworthiness, B=brand, and E=endorsement. For cells that contain two values, the top is an F-value, and the bottom is an effect size.
*$p<.05$.
** $p<.01$.

λ=.959, F=1.923, df=4/182, p=.108). The multivariate effect sizes for brand and endorsement (η^2 of .107 and .175, respectively) were relatively large. The brand main effect was attributable to perceived quality (F=5.347, df=1/185, p=.022), attitude toward the manufacturer (F=4.128, df=1/185, p=.044), and purchase risk (F=18.536, df=1/185, $p<.001$) but not information value of the ad (F=.606, df=1/185, p=.437). The endorsement main effect was attributable to perceived quality (F=20.237, df=1/185, $p<.001$), purchase risk (F=5.918, df=1/185, $p<.016$), and information value of the ad (F=25.823, df=1/185, $p<.001$) but not attitude toward the manufacturer (F=2.767, df=1/185, p=.098).

Hypotheses Tests

H1 proposed that subjects exposed to a TPO endorsement for auto insurance would provide higher scores on measures of perceived quality (H1a), attitude toward the manufacturer (H1b), and information value of the ad (H1c) and lower scores on purchase risk (H1d) than would subjects exposed to either a celebrity endorsement or the no-endorsement condition. As shown in Table 5, only H1d was upheld. Information value for the TPO endorsement (mean=3.88) was significantly higher than that for the celebrity endorsement (mean=2.98) or the no-endorsement condition (mean=3.16). H1a, H1b, and H1c were not supported. Perception of product quality for the TPO endorsement (mean=4.30) was significantly higher than that for the celebrity endorsement (mean=3.61) but not significantly higher than the no-endorsement condition (mean=3.95). For the dependent variables of attitude toward the manufacturer and purchase risk, TPO endorsement resulted in means generally in the appropriate direction, but the differences were not significant.

H2 predicted that the trustworthiness cue would interact with the endorsement cue for perceived quality (H2a) and information value of the ad (H2b). However, there was no significant multivariate trustworthiness by endorsement interaction, nor was there a significant univariate trustworthiness by endorsement interaction for any of the hypothesized variables. H3 proposed a brand by endorsement interaction for perceived quality. As shown in Table 4, the brand by endorsement interaction was not significant, in either a multivariate or univariate sense.

Discussion

This study compared the effects of advertising that contained no endorsement, product endorsement by a

Table 5
Test of Hypothesis 1: Insurance Study

	No Endorsement (NE) n=44	*Celebrity Endorsement (C) n=101*	*TPO Endorsement (TPO) n=92*	*Significant Mean Differences*
QUALITY	3.95 1.19	3.61 1.02	4.30 1.21	C<TPO
ATTM	3.52 1.21	3.39 1.22	3.52 1.21	None
RISK	3.10 1.02	3.46 1.14	3.07 1.10	None
INFORM	3.16 1.47	2.98 1.29	3.88 1.23	C,NE<TPO

Notes: QUALITY=perceived quality, ATTM=attitude toward the manufacturer, RISK=purchase risk, and INFORM=information value of the ad. Significant differences between groups are Student-Newman-Keuls tests at p=.05 or less. The top value in the cell is the mean, and the bottom value is the standard deviation.

TPO, or product endorsement by a celebrity on consumer perceptions of product quality, attitude toward the manufacturer, purchase risk, and informational value of the ad. Endorsement effects were investigated for both a tangible good (desktop computer) and a pure service (auto insurance). The moderating effects of prior evaluation of the advertised brand and endorser trustworthiness on the endorsement effect were also examined.

Source Effects

Theory suggests that, for products high in financial risk and low in psychological risk, endorsements processed through internalization (TPO endorsements) will outperform endorsements processed through identification (celebrity endorsements), and the results are consistent with this premise. Across both studies, the TPO endorsement groups had means for perceived quality and information value of the ad that were significantly greater than those for the celebrity groups. Expertise appears to be the source effect most responsible for endorsement persuasion in advertising expensive, utilitarian products. Consumers apparently regard the recommendations of expert sources as information that can be internalized to solve problems. Across both studies, subjects exposed to endorsements by *Consumer's Digest* rated this source as significantly more expert than did subjects exposed to an endorsement by a celebrity (Tom Brokaw or Mario Andretti). For all dependent variables in the two studies, means of the TPO endorsement groups were always more favorable than the means of the celebrity groups. The findings of this investigation are interpreted to support previous research that suggests expertise drives purchase-related variables for product endorsement advertising (Friedman and Friedman 1979; Ohanian 1991).

Although TPO endorsements were generally superior to celebrity endorsements for the products advertised in this investigation, celebrity endorsements are not without merit. For products high in psychological or social risk and low in financial or performance risk, celebrity endorsements may be more appropriate (Friedman and Friedman 1979). In addition, celebrity endorsements are valuable in attracting attention to the ad and the brand (O'Mahoney and Meenaghan 1997/98). This is an important point. Subjects in the current investigation cognitively processed the ad stimuli. That is, they were allowed time to view the ads, and then they were asked questions about the ad, which required cognition. In conditions in which heuristic processing of the ad might be expected to occur (Petty, Cacioppo, and Goldman 1981), TPO endorsement may be ineffective and celebrity endorsement may be superior. It is also possible that celebrity and TPO endorsements may be differentially effective across the stages of the Lavidge-Steiner model (Lavidge and Steiner 1961). Celebrity endorsement may be most effective in the early stages (awareness, knowledge, liking), whereas TPO endorsement may be most effective in the later stages (preference, conviction, purchase).

Among the endorsement family, TPO endorsement was argued to be unique in its ability to signal product quality and inform the consumer. Signaling theory and the economics of information framework suggest

perceived quality and information value of the ad as the dependent variables most likely to be affected by TPO endorsement, and indeed, these variables contributed the most to the endorsement main effect. The two endorsement groups did not significantly differ on attitude toward the manufacturer and purchase risk, which may suggest that these latter variables, though related to the former, are more global and less likely to be affected by a one-time exposure to an ad. It should be noted that the effect size for perceived quality with an endorsement (TPO versus celebrity) is at least twice the effect size for brand (high versus low). Because brand is acknowledged to be a potent signal of product quality, the TPO endorsement's favorable comparison to brand (Tables 2 and 4) suggests that TPO endorsement deserves recognition as an extrinsic quality cue.

Although both endorsement and brand exhibited highly significant main effects in this investigation, trustworthiness is noteworthy for its lack of a significant main effect (Tables 2 and 4). Because the trustworthiness manipulations were pretested and even rather heavy-handed, this is unexpected. It was anticipated that a source (endorser) depicted as likely to be biased in communication would result in less favorable responses on the dependent variables. However, the pretesting of the trustworthiness manipulation was not performed in the presence of intrinsic quality cues or the names of celebrities or TPOs. It is possible that the combination of elements resulted in unanticipated effects. Intrinsic quality cues were present in ads in the computer study, which may have allowed subjects in that experiment to evaluate the product regardless of endorser trustworthiness. There were no intrinsic quality cues in ads for the insurance product (a pure service), so subjects might weight trustworthiness more in that study. In apparent support of this, the trustworthiness main effect is closer to significance in the second study than in the first (p=.108 versus p=.688).

Interaction Effects

The hypothesized interaction of endorsement with trustworthiness did not occur. The preceding discussion of the trustworthiness main effect suggests that the trustworthiness by endorsement interaction may have been affected by the choice of celebrity endorser and the presence or absence of intrinsic cues in the ad. The hypothesized brand by endorsement interaction was found in the computer study but not in the insurance study. A lower level of familiarity with the insurance product and the presence or absence of intrinsic cues may partially account for the different results in the two studies. For the product with which students were more familiar (desktop computer), the significant brand by endorsement interaction is interpreted to support Wu and Shaffer's (1987) proposition that respondents will differ in their susceptibility to a counterattitudinal message on the basis of brand experience.

The Product Factor

Although not proposed as a separate hypothesis, it was anticipated that TPO endorsement would have a greater effect in the advertisement of auto insurance than in the advertisement of computers. The basis for this belief is that consumers perceive more risk in the purchase of services than of goods (Murray and Schlacter 1990). This suggests that consumers may rely on TPO endorsement as a quality cue to a greater extent in the purchase of services than of goods. Unfortunately, data sets for the two studies could not be combined to examine the product factor because of potential confounding. That is, any discovered "product" effect could not be separated from other effects because of the differences in the two studies. For example, the advertising claims used in TPO endorsements for the two experiments are different. The TPO endorsement of the computer was based on overall performance (speed, convenience, upgradibility, and reliability). The TPO endorsement for auto insurance was based on claims satisfaction for 32,000 policyholders. One claim is objective and based on specified criteria, whereas the other is more subjective. The ads for the two products also differed in terms of the presence of intrinsic quality cues for computers and an absence of such cues for insurance. Finally, the two products were not equated for risk factors. Even if a product difference was found, we could not say that the difference was due solely to the fact that one product is a service and the other a tangible good.

Managerial Implications

The results suggest that TPO endorsements in advertising may have practical usefulness. Consistent in both experiments, TPO endorsement resulted in significantly greater perceived product quality and information value of the ad than did celebrity endorsement. However, managerial use of a TPO endorsement requires that a TPO first acknowledge a brand with an endorsement, then agree to allow its name to be used in the manufacturer's advertising for the product. This inflexibility may limit manage-

rial use of TPO endorsements in advertising. In addition, there are legal considerations in using any endorsement in advertising (Kertz and Ohanian 1992).

In choosing to promote products with TPO endorsers, managers have several factors to consider. First, the effects of TPO endorsement are likely to vary depending on both the format of the endorsement and the characteristics of the TPO. Second, the effectiveness of any individual TPO may depend on the perceived consumer advocacy position of the TPO, the match-up between the perceived expertise of the TPO and the product endorsed, the strength of the endorsement, and the name recognition of the TPO. Managers may wish to consider these factors, as well as organizational constraints and goals, before choosing a TPO as an endorser.

Limitations

The conditions of this investigation were very artificial. For example, students were given quiet time during class to fill out the questionnaire, and they were motivated by the reward of extra credit. This probably led to high-involvement processing of the ad stimuli. The possible effects of low-involvement processing of TPO endorsements are unclear. An additional limitation is the exclusion of other extrinsic quality cues (e.g., price, retailer name and location, warranty) from the advertising stimuli. Any or all of these cues may interact with the cues studied in this investigation. Both of the products chosen for investigation are relatively expensive, and TPO endorsement of inexpensive, frequently purchased products may have very different results. Also, subjects could have confused the TPO used in this investigation (*Consumer's Digest*) with the highly respected and similar sounding *Consumer Reports*. The latter TPO prohibits the use of its name in advertising. If confusion did exist, the positive effects demonstrated for TPO endorsement could be both artificially high and unrealistic. Finally, the use of Tom Brokaw as an endorser was unrealistic because contractual agreements typically prevent journalists from endorsing products. All of these factors limit the conclusions that may be drawn from this study.

Probably the major limitation to this study (and a threat to generalizability of the findings) is the use of a sample with relatively limited consumer experience. This lack of experience may have predisposed the sample to place greater reliance on quality cues in advertising than would a similar sample of more experienced consumers. Thus, experience may be an unobserved moderator of the TPO endorsement effect.

Future Directions for Research

The results of this study raise several questions that may be addressed with further research. First, this investigation only studied TPO endorsements in the "product comparative" format. The effects of advertising containing the seal of approval format or the quoted statement from a product review format remain to be determined. Second, the nature of the TPO making the endorsement could be examined for a differential effect. For example, would a TPO that uses experts to render product evaluations be a more effective endorser than a TPO that summarizes product evaluations by typical consumers? Third, TPO endorsement should be tested for its ability to enhance perceptions of other types of products. Both products used in this study were relatively expensive, but they had few hedonic consumption characteristics. In contrast, TPO endorsement may perform very differently if the advertised product is inexpensive or if the product has strong affective appeal. For example, food and entertainment are products that may elicit strong emotions. In such cases, the consumer may have idiosyncratic tastes and be unwilling to follow a TPO recommendation.

References

Aaker, David A. (1996), "Measuring Brand Equity Across Products and Markets," *California Management Review*, 38 (3), 102-125.

Boulding, William and Amna Kirmani (1993), "A Consumer-Side Experimental Examination of Signaling Theory: Do Consumers Perceive Warranties as Signals of Quality?" *Journal of Consumer Research*, 20 (June), 111-123.

Claxton, John D., Joseph N. Fry, and Bernard Portis (1974), "A Taxonomy of Prepurchase Information Gathering Patterns," *Journal of Consumer Research*, 1 (December), 35-43.

Dawar, Niraj and Philip Parker (1994), "Marketing Universals: Consumers' Use of Brand Name, Price, Physical Appearance, and Retailer Reputation as Signals of Product Quality," *Journal of Marketing*, 58 (April), 81-95.

Dean, Dwane Hal (1999), "Brand Endorsement, Popularity, and Event Sponsorship as Advertising Cues Affecting Consumer Pre-Purchase Attitudes," *Journal of Advertising*, 28 (Fall), 1-12.

Fireworker, Robert B. and Hershey H. Friedman (1977), "The Effects of Endorsements on Product Evaluation, " *Decision Science*, 8 (July), 576-583.

Folkes, Valerie S. (1988), "Recent Attribution Research in Consumer Behavior: A Review and New Directions," *Journal of Consumer Research*, 14 (March), 548-565.

Fornell, Claes and David F. Larcker (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, 18 (February), 39-50.

Frieden, Jon B. (1984), "Advertising Spokesperson Effects: An Examination of Endorser Type and Gender on Two Audiences," *Journal of Advertising Research*, 24 (October-November), 33-41.

Friedman, Hershey H. and Linda Friedman (1979), "Endorser Effectiveness by Product Type," *Journal of Advertising Research*, 19 (October), 63-71.

Goldsmith, Ronald E., Barbara A. Lafferty, and Stephen J. Newell (2000), "The Impact of Corporate Credibility and Celebrity Credibility on Consumer Reaction to Advertisements and Brands," *Journal of Advertising*, 29 (Fall), 43-54.

Hair, Joseph F., Rolph E. Anderson, Ronald L. Tatham, and William C. Black (1995), *Multivariate Data Analysis,* 4th ed., Englewood Cliffs, NJ: Prentice Hall, 682-693.

Ippolito, Pauline M. (1990), "Bonding and Nonbonding Signals of Product Quality," *Journal of Business*, 63 (1), 41-60.

Jacoby, Jacob, George J. Szybillo, and Jacqueline Busato-Schach (1977), "Information Acquisition Behavior in Brand Choice Situations," *Journal of Consumer Research,* 3 (March), 209-216.

Joreskog, Karl and Dag Sorbom (1996), *LISREL 8: User's Reference Guide*, Chicago: Scientific Software International.

Kamins, Michael A. (1990), "An Investigation into the 'Match-Up' Hypothesis in Celebrity Advertising: When Beauty May Be Only Skin Deep," *Journal of Advertising*, 19 (1), 4-13.

Kelman, Herbert C. (1961), "Processes of Opinion Change," *Public Opinion Quarterly*, 25 (Spring), 57-78.

Kertz, Consuelo and Roobina Ohanian (1992), "Source Credibility, Legal Liability, and the Law of Endorsement," *Journal of Public Policy & Marketing*, 11 (Spring), 12-24.

Lavidge, Robert J. and Gary A. Steiner (1961), "A Model for Predicting Measurements of Advertising Effectiveness," *Journal of Marketing*, 25 (October), 59-62.

McGinnies, Elliott and Charles D. Ward (1980), "Better Liked Than Right: Trustworthiness and Expertise as Factors in Credibility," *Personality and Social Psychology Bulletin*, 6 (September), 467-472.

Murray, Keith B. and John L. Schlacter (1990), "The Impact of Services Versus Goods on Consumers' Assessment of Perceived Risk and Variability," *Journal of the Academy of Marketing Science,* 18 (1), 51-65.

Nelson, Phillip (1970), "Information and Consumer Behavior," *Journal of Political Economy,* 78 (March-April), 311-329.

———— (1974), "Advertising as Information," *Journal of Political Economy,* 82 (July-August), 729-754.

Nunnally, Jum C. and Ira H. Bernstein (1994), *Psychometric Theory*, 3d ed., New York: McGraw-Hill.

Ohanian, Roobina (1991), "The Impact of Celebrity Spokespersons' Image on Consumers' Intention to Purchase," *Journal of Advertising Research,* 31 (February-March), 46-54.

O'Mahony, Sheila and Tony Meenaghan (1997/98), "The Impact of Celebrity Endorsements on Consumers," *Irish Marketing Review*, 10 (2), 15-24.

Peterson, Robert A., William R. Wilson, and Steven P. Brown (1992), "Effects of Advertised Customer Satisfaction Claims on Consumer Attitudes and Purchase Intention," *Journal of Advertising Research,* 32 (March-April), 34-40.

Petty, Richard E., John T. Cacioppo, and Rachel Goldman (1981), "Personal Involvement as a Determinant of Argument-Based Persuasion," *Journal of Personality and Social Psychology*, 41 (November), 847-855.

Shimp, Terence A. and William O. Bearden (1982), "Warranty and Other Extrinsic Cue Effects on Consumers' Risk Perceptions," *Journal of Consumer Research,* 9 (June), 38-49.

Wilson, Elizabeth J. and Daniel L. Sherrell (1993), "Source Effects in Communication and Persuasion Research: A Meta-Analysis of Effect Size," *Journal of the Academy of Marketing Science*, 21 (Spring), 101-112.

Woodside, Arch G. and J. William Davenport Jr. (1974), "The Effect of Salesman Similarity and Expertise on Consumer Purchasing Behavior," *Journal of Marketing Research*, 11 (May), 198-202.

Wu, Chenghuan and David R. Shaffer (1987), "Susceptibility to Persuasive Appeals as a Function of Source Credibility and Prior Experience with the Attitude Object," *Journal of Personality and Social Psychology,* 52 (4), 677-688.

Zeithaml, Valarie A. (1988), "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence," *Journal of Marketing,* 52 (July), 2-22.