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Pre-Purchase Attribute Verifiability, Source Credibility, and Persuasion

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ABSTRACT

Recent research has found that search and experience attribute claims are processed differently by consumers, with search attribute claims typically being more believable than experience attribute claims. It is, however, routinely the case that marketers desire to promote a product by making a claim featuring an experience attribute. The marketing literature has largely neglected the issue of how to enhance persuasion of experience attribute claims. The purpose of this research was to fill this void. We reason that source credibility impacts the receipt of experience claims and search claims differently and then report results of two experiments featuring two different types of sources in the context of two different categories which suggest that a source high in credibility can be employed to make experience claims more persuasive. The contributions our study makes to the persuasion literature and avenues for future research are discussed.

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INTRODUCTION

Consumer search has been the focus of much research since Stigler (1961) proposed the Economics of Information framework. Nelson (1974) adopted the framework and differentiated between a product's search and experience qualities (attributes). Wright & Lynch (1995) described search attributes as those for which valid information "can be gained from secondhand sources such as advertising and word-of-mouth (vs. firsthand experience), without having to buy or try the product" (p. 709), and experience attributes as those that require consumption to be validated. Jain, Buchanan, and Maheswaran (1999) endorsed this viewpoint and defined search and experience attributes based on whether attribute information was verifiable (search) or not verifiable (experience) prior to purchase/consumption.

Research findings have supported the premise of consumers' evaluations differing for search and experience qualities. Ford, Smith, and Swasy (1990) found that consumers were more skeptical of experience attribute claims than they were of search attribute claims. Jain et al (1999) found these results were particularly characteristic of comparative versus noncomparative ads. Rao and Bergen (1992) demonstrated that consumers were willing to pay a price higher for experience products than for search products (presumably drawing on an assumption of a correlation between price and quality).

The dilemma in experience attribute situations is how to persuasively communicate information relating to an attribute about which the consumer has considerable uncertainty. In this paper we examine the impact of low versus high credibility sources in the context of attribute claims that are search or experience in nature. Specifically, we argue that when consumers have no prior knowledge of a brand's qualities, use of high credibility sources

communicates experience attribute information more persuasively. For search attribute information, we reason that source credibility matters less to enhance persuasion. In the next section, we examine research in economic signaling and marketing to provide the theoretical rationale for our expectations. Then, we report two experiments and show support for our hypotheses across the two categories employed in our studies. We conclude with a discussion relating to the implications of our work for marketing practice, the contributions our research makes to the persuasion literature, and suggested avenues for further research.

THEORETICAL BACKGROUND

Marketers often use signals to communicate a product's different qualities – search as well as experience. For instance, Smith and Park (1992), in a study on brand extensions and their effects on market share and advertising efficiency, obtained some support for Nelson's (1974) assertions that a product's brand name contains information for (i.e., signals) experience attributes of the product. In particular, they found that the effects of brand extensions on market share and ad efficiency were greater for experience than for search goods. The authors argued that for a new experience good, "consumers tend to rely heavily on cues such as a known brand name as bases for inferring quality" (p. 300) and that "pre-established identity of brand extensions should prove particularly valuable for experience goods" (p. 300). "Pre-established identity" here refers to the identity of the brand extension rooted in the identity of the parent brand. Erdem and Swait (1998), using a signaling perspective, demonstrated that in imperfect and asymmetrical markets, brand name serves as a powerful signal of quality when consumers are uncertain about product attributes (as in the case of "experience...products", p 134). These two studies suggest that a 'strong' brand name can be profitably exploited as a signal of experience qualities of the product.

In completely new brand situations, however, marketers do not have the luxury of a strong brand name backing the product. In such settings, other means are required that will enhance persuasion of experience attribute claims. One of these could be heuristics other than the brand name that, in the consumer's mind, are highly correlated (positively or negatively) with experiential aspects of the product (and hence, serve as signals). For instance, price has been documented to be a positive correlate of quality in a variety of situations (Rao and Monroe 1989). Boulding and Kirmani (1993) examined the use of warranties as signals of product qualities about which consumers are uncertain (a.k.a. experience attributes). Drawing on Ippolito's (1990) signaling framework, these authors found that under conditions of strong manufacturer reputation and trustworthiness, warranties served as quality signals while under conditions of weak manufacturer reputation and trustworthiness, warranties were unsuccessful in signaling quality. Besides delineating conditions when warranties may be perceived by consumers as diagnostic of a product's qualities that are unobservable prior to purchase/consumption, these findings also suggest that the message source is a crucial determinant of persuasion when it comes to experience attributes for a product. The focus of our research is on the use of message sources as quality signals and in the next section we examine research pertaining to message sources and how they impact communication persuasion.

Source Credibility

In a recent study, Grewal, Gotlieb, and Marmorstein (1994) found that price information was used by consumers in judging a product's perceived performance risk when source credibility was low. When source credibility was high, however, they found that attribute (and not price) information was used to gauge performance risk. These findings suggest that if the consumer is assessing a product's search attributes, 'quality signals' like message source may not

be needed as the consumer can evaluate search information with confidence prior to purchase and consumption. For assessment of experience information, the consumer looks for cues like brand name, price, and warranty. In the absence of such cues, the consumer may rely on a source as the experience quality signal. If that source is not credible, the uncertainty remains. If, however, the source is credible, such information may be relied upon for the consumer to judge product quality.

Pre-purchase Attribute Verifiability

Earlier in the paper, we summarized research pertaining to the search/experience attribute typology and concluded that information relating to these two attributes impacts believability differently. Because search attributes are verifiable prior to purchase/consumption, claims featuring such attributes do not require supporting evidence to enhance believability of the claim. Examples of search claims are nutritional content of a breakfast cereal (verifiable by reading the information on a package) and the price of an electric bulb. The Persuasion Knowledge Model (Friestad and Wright 1994) asserts that in advertising settings, consumers often possess the knowledge that a persuasion attempt is being targeted at them. This persuasion knowledge enables consumers to attribute motivations of the advertiser behind this attempt. When the advertiser makes a search attribute claim, perceived motivation may be an attempt to encourage comparison-shopping and therefore, non-manipulative in intent (For instance, the consumer could reason with herself, "This must be true as I can verify it without much ado."). This causal reasoning should make a search claim believable, regardless of the evidence provided to support the claim. Simply put, a search attribute claim requires little or no evidence in its support. A claim featuring an important experience attribute, on the other hand, involves more cost to verify in that the consumer has to pay for the product and try it to verify the experience claim. Because

of the cost involved in verifying such claims, the consumer may seek evidence in support of the claim from the advertiser to lower the risk associated with an experience claim. Sampling the product is one way to obtain evidence of the product's experience qualities, but sampling itself may not be possible in all circumstances. Endorsement from a credible source is a possible piece of information to increase evidence sufficiency. If the consumer is exposed to an ad which features a highly credible source endorsing an experience claim, the message should be more believable and persuasive than one which features a source low in credibility. This prediction should hold because it is a main effect prediction – that highly credible sources should be more persuasive than low credibility sources, but this believability is even more important in the ambiguous circumstance of new product contexts or settings in which consumers do not possess prior knowledge or experience. For an experience-low credibility source message, there are two factors that contribute to skepticism (or counteragumentation) towards the message – the experiential nature of the claim and the low credibility of the source. For an experience-high credibility source message, the counterargumentation associated with the experience factor should be attenuated by the support argumentation associated with the high credibility of the source. High source credibility should therefore enhance persuasion, which would not be necessary for search qualities, but should be beneficial for experiential qualities.

HYPOTHESES

In accordance with this reasoning, we made the following predictions:

H1: Participants will make more support arguments, and fewer counter arguments when exposed to either a search claim or a claim made by a highly credible source, compared to an experience claim made by a low credibility source.

Based on the prediction regarding cognitive responses, we expected the following

results for believability.

H2: The believability of a claim will be higher if it relates to a search attribute or is delivered by a highly credible source, compared to an experience claim made by a low credibility source.

If these hypotheses hold and if the featured attribute is important for the respondents, we would also expect a similar pattern of results for both belief confidence and evaluations of the advertised products.

H3: Participants will express greater confidence in their beliefs based on either search claim messages or messages delivered by a highly credible source, compared to messages containing an experience claim delivered by a low credibility source.

H4: Participants will evaluate products more favorably when they are supported either by a search claim or by a message delivered by a highly credible source, compared to products supported by an experience claim delivered by a low credibility source.

EXPERIMENT 1

Participants

Eighty-one first year MBA students – sixty-two male and nineteen female - participated in the experiment in exchange for a $ 20 payment.

Attribute Selection

We adapted the method employed by Ford et al (1990) to select attributes for the study. In a pretest, 20 respondents demographically similar to those that participated in the final study were asked to assess the pre-purchase verifiability of various attributes for two categories – mountain bicycles and cameras. Among the attributes respondents were exposed to were "weight" and "ease of control on mountain trails" for bikes and "compactness" and "ability to

take sharp pictures" for cameras. Each of the attributes featured in the test was chosen based on actual claims reported in ads of real brands in these categories. Respondents were asked to assess when was the earliest they could verify the listed attributes, and were given four response categories for their assessment – before purchase, after purchase, only an expert could tell, no one could tell (see Ford et al 1990). Weight of a bike and compactness of a camera were perceived to be attributes verifiable "before purchase" by 70% and 75% of the respondents respectively. These qualities were therefore selected to represent search attributes for the final study. Similarly, ease of control for bikes and ability to take sharp pictures were felt to be verifiable "after purchase" by 75% and 80% of the respondents respectively, and were thus chosen as experience attributes for each category.

Procedure

The questionnaire contained the instructions, experimental stimuli, and dependent measures. Respondents were exposed sequentially to two home-made, print, single page, black & white ads – one for a brand of mountain bikes (Wolverine) and the other for a brand of cameras (Regal 150). Subsequent to the first ad exposure, they answered several questions pertaining to the ad following which the process was repeated for the second ad. Each ad contained a one-sentence headline at the top of the page summarizing the claim made in the copy, a product graphic in the middle of the page, copy containing the product claim below the graphic, and a brand signoff at the bottom. The ads varied across condition as a function of (1) whether a search or an experience claim was made, and (2) whether the source of the claim was of high or low credibility. Accordingly, the design of the study was a 2 x 2 (type of claim x source credibility). The search claim for the mountain bike ad was its weight ("lightweight", "weighs only 26 pounds") while the experience claim was how easy the bike was to control on trails. The

corresponding claims for the camera ads were its compactness (search) and the sharpness of the pictures it takes under any light and weather conditions (experience).

Regarding source credibility, Stern (1994) draws a distinction between two types of message sources - the endorser/spokesperson (the 'within text' communicator who is paid by the advertiser to endorse a product) and the advertiser (the 'without text' financial source of the ad). Stern (1994) contends that these different sources may have different effects. Accordingly, our stimuli featured two different sources – a manufacturer and a spokesperson. Source credibility in the mountain bike ads was manipulated by varying the expertise of the endorser. In both high and low credible conditions, the endorser of Wolverine was stated to be a person named Greg Jennings. The ad copy described Greg Jennings as either a champion mountain bike racer who had won several World Cup events (high source credibility), or a local teenage bike enthusiast (low source credibility). Credibility in the Regal ads was manipulated by varying characteristics of the company that ostensibly produced the Regal. Prior to ad exposure, participants were given some information about the company that supposedly manufactured this camera. In the high credibility condition, the producer was described as "…a company which leads in the field of camera technology and has pioneered the introduction of several innovative cameras in the past." In the low credibility condition, in contrast, the firm was described as "…a company which has thus far had no experience in the manufacture of cameras or similar products and thus, has no associated reputation."

After viewing the ad, participants answered several questions. First, they engaged in a free cognition task where they listed all thoughts that came to their minds while they were going through the ad. The purpose of this thought-listing task was twofold. One, we planned on assessing the extent of source derogation as a check of the credibility manipulation. Two, we

wanted to assess the extent of counterarguing and support arguments as a test of H1. Accordingly, we asked two judges blind to the hypotheses to code the thoughts into the following categories:

1.   Message Content Related Thoughts (MCRT): Thoughts countering or refuting the claim made in the ad, thoughts in support of the claim, thoughts suggesting that the respondent derogated the message source/endorser, neutral thoughts, and irrelevant thoughts.

2.   Ad Related Thoughts (ART): Thoughts that directly or indirectly indicated a statement made by the subject about the ad visual, copy, and layout and which had nothing to do with the message content per se were classified separately as ART. These were classified as negative ART (thoughts suggesting that the respondent found the ad unrealistic or unprofessional), positive ART (thoughts suggesting the opposite), and neutral thoughts.

There was 95% agreement among the judges regarding ART. For MCRT, the initial agreement was 78%, and the remaining codes were resolved through discussion.

After the thought-listing task, participants responded to a series of 9-point Likert-type questions. H2 was tested using questions asking participants to rate the believability of the ad (anchored by 1 = not at all believable, 9 = highly believable), and the extent to which they thought the claim made in the ad was true (1 = not at all true, 9 = absolutely true). Additional questions asked participants to rate their confidence that the claim made was true (1 = not at all confident, 9 = absolutely confident), their evaluations of each product (using three items anchored by 1 = very bad, 9 = very good; 1 = highly unfavorable, 9 = highly favorable; 1 = not a useful product, 9 = very useful product), and their assessment of the communicator of each ad (again using three items with end points 1 = not at all trustworthy, 9 = very trustworthy; 1 = very low expertise, 9 = very high expertise; 1 = not at all credible, 9 = very credible).

We also included a series of potential covariates to test for alternative explanations. Specifically, for each product category, we asked participants to rate their experience (1 = very little, 9 = a great deal), their knowledge (1 = very little, 9 = a great deal), their self-reported expertise (reverse coded: 1 = very high, 9 = very low). The measures for knowledge, experience, and expertise were averaged to form an overall "consumer expertise" measure; for bikes, the Cronbach's alpha for this scale was 0.80, for cameras, 0.82. An aggregate "involvement" measure was similarly created using subjects' opinions regarding product relevance (1 = very relevant, 9 = not at all relevant), and how important the purchase decision was (1= very important, 9 = not at all important). The correlation between relevance and importance was 0.95 for bikes and 0.92 for cameras.

Following completion of the questionnaire, students received payment for their participation and were debriefed in a mailing after the completion of the data collection.

RESULTS

Manipulation Checks

The first set of analyses was conducted to check the effectiveness of the credibility manipulation for each product. For bicycles, the three measures of credibility (trustworthiness, expertise, overall) were highly correlated and were thus averaged to form a 'source' index (alpha = 0.84). As indicated in Table 1, the manipulations for the bicycles were successful; the high credibility sources were seen as more trustworthy, more expert, more credible, and they also elicited fewer derogatory arguments than low credibility sources.

INSERT TABLE 1 ABOUT HERE

The manipulation checks for the camera ads also yielded expected and desirable results (see Table 2). As compared to a low credibility source, the high credibility source was perceived to possess greater expertise as well as overall credibility (trustworthiness was directionally supportive). Importantly, one-way ANOVAs on the source index (alpha = 0.78) for the producer of Regal-150 and source derogations, both demonstrated the effectiveness of the credibility manipulation.

INSERT TABLE 2 ABOUT HERE

Respondents indulged in very little ad-related thinking, with fewer than 8% of the thoughts for mountain bike ads and 6% for camera ads being ad-related. In addition, such thoughts were divided fairly evenly across conditions and had similar valence. This could be because respondents focused on the message content more than the ad per se. Ad related thoughts therefore were not considered for further analysis and the possibility that attitude towards the ads may have impacted results was ruled out. A possible implication of the fact that ad-related thinking was minimal is that if respondents were to focus more on the ad layout and other creative elements, they may have formulated judgments that went beyond message content related cues like search features and source credibility.

Treatment Effects: Mountain Bikes

Cognitive Responses. Planned contrasts examined the extent of counter arguments and support arguments made by participants in the experience-low credible condition versus the other conditions. The analyses were consistent with predictions. There were significantly more counter arguments in the experience-low credible condition than in the other conditions.

Moreover, participants made fewer support arguments in the experience-low credible condition than in the other conditions. Interaction findings were significant for counter arguments and marginally significant for support arguments.

INSERT TABLE 3 ABOUT HERE

Believability. Because the questionnaire items which measured the extent to which subjects thought the ad claim was believable and true were highly correlated for both, mountain bikes ($r = .82$, $p < .001$) as well as cameras ($r = .92$, $p < .001$), these two measures were aggregated for the purpose of analysis. Table 3 presents this aggregate measure of the believability of bicycle ad claims, as well as the other dependent variables administered after the bicycle ad, as a function of condition. A planned contrast compared the mean believability of the experience-low credible bicycle ad with the mean believability of the other ads. This analysis demonstrated that, consistent with H2, the experience-low credible ad was significantly less believable than the other ads. Interaction findings were also as expected. Subsequent analyses determined that none of the potential covariates or gender moderated this, or any other effect in the research.

Belief Confidence and Evaluations. Analyses of responses to the belief confidence question showed that, as predicted under H3, participants expressed more confidence when the claim was search, or when the source was highly credible than when the claim was experience and delivered by a low credible source. Finally, product evaluations [alpha for 3 items measuring product evaluations = 0.86] for bikes were consistent with H4. Participants rated the Wolverine less positively when it was supported by an experience claim made by a low credible source than

in the other conditions. As with support arguments, interaction results were marginally significant for both belief confidence as well as evaluations.

In summary, data for mountain bikes supported each of the hypotheses.

Treatment Effect: Cameras

Analyses of responses to the camera ad also provided support for our hypotheses (see Table 4 for the means of the dependent variables for the camera ads). A planned comparison demonstrated that participants in the experience-low credible condition elicited more counter arguments than participants in the other conditions as well as fewer support arguments, supporting H1. Also, believability of the camera ad in the experience-low credible condition was lower than the believability of the ad in the other conditions, supporting H2.

INSERT TABLE 4 ABOUT HERE

The belief confidence data for the camera ads further suggested that the experience-low credible message yielded confidence lower than the average of the other three conditions, although this finding (testing H3) was only marginally significant. Data for camera evaluations [alpha = 0.91] testing H4 was directionally supportive. The only significant interaction between claim type and source credibility for cameras was that pertaining to counter arguments (believability, support arguments, and belief confidence data were directional while product evaluation data was weak).

DISCUSSION

Experiment 1 documents the differential effect source credibility may have on receipt of search versus experience claims. Specifically we found that when respondents were exposed to

an experience claim emanating from a low credibility source, they refuted the claim more and evaluated the product as relatively less attractive, as compared to the other conditions. Our results of both planned contrasts as well as interaction were relatively unambiguous for the mountain bike category while for camera ads, findings were less congenial (significant contrasts were obtained for counter arguments, support arguments, and believability while directionally supportive contrasts were obtained for participants' belief confidence and evaluations). Several explanations for the differences in findings between bikes and cameras can be forwarded. The first potential explanation relates to the source type, i.e., whether the source was the manufacturer or a spokesperson. While we used a spokesperson in the bike ads, the source was the manufacturer in the camera ads. Thus, the source type may have interacted with the category in some complex and unexpected ways. A second possible explanation is a category-related one. Respondents expressed lower (higher) level of overall expertise with the mountain bike (camera) category ($\underline{M}_{bike}$ = 4.21, $\underline{M}_{camera}$ = 5.40, t = 3.32, p<0.001). This expertise possibly accorded them with greater ability to process a camera ad, which in turn may have enabled them to more effectively discount the camera message source. However, if greater knowledge with the camera category was responsible for the variation in findings between categories, there should have been evidence of greater source derogations as compared to the bike ads, which we did not find, nor did an analysis of covariance reveal any significant effects. In addition, recall that we had collected three measures of consumer expertise with category. In a separate analysis, using a median split, we divided the respondents into high and low expertise subjects based on their self-reports on these measures, effectively treating expertise as a two-level independent variable. We found neither any main nor any interaction effects involving expertise.

We do not find the belief confidence and evaluation findings for cameras overly problematic for three reasons. First, we did obtain significant results for believability, support arguments, and counter arguments. Second, the non-significant results were in the expected direction. Third, all of the planned contrasts were significant for the bicycle ads. Nevertheless, to rule out the most plausible alternative explanation (interaction of source-type and category), we conducted a second experiment to examine whether results varied if the source type was interchanged between bikes and cameras.

EXPERIMENT 2

Eighty one MBA students participated in the study for a $ 20 payment. The procedure for the second experiment was identical to the first experiment with the following changes:

1. The source for camera ads was a spokesperson within the ad. In the low credibility condition, this person was described to be Greg Jennings, "a local teenage photography enthusiast", while in the high credibility condition, Greg Jennings was described as "a photographer with National Geographic magazine and winner of several international awards".

2. The source for the mountain bike ads was the manufacturer. As in experiment 1, manufacturer information was provided to the subjects immediately prior to ad exposure. In the low credibility condition, before respondents viewed the ad, they were led to believe that the manufacturer "has no experience in the manufacture of bicycles or similar products and thus, has no associated reputation." The high credibility condition typified the manufacturer as "a company which leads in the field of bicycle technology and has pioneered the introduction of several innovative bicycles designs in the past."

In sum, the design was identical to that for study 1, but whereas the source had been a spokesperson for the bike category and the manufacturer for cameras, these executions were reversed in study 2.

RESULTS

Manipulation Checks

As in the first experiment, the first set of analyses was conducted to check the effectiveness of the credibility manipulation for each product. For bikes as well as for cameras, trustworthiness, expertise, and overall credibility were highly correlated (alpha for bikes = 0.78; alpha for cameras = 0.80) and were thus combined into an aggregate measure of credibility. The ANOVAs conducted to check the manipulations verified that for both categories, as compared to low credible sources, high credible sources were perceived to be significantly more trustworthy, expert, and credible and were derogated less.

INSERT TABLES 5 & 6 ABOUT HERE

Treatment Effects: Mountain Bikes

Cognitive Responses. Consistent with the hypothesis, more counter arguments were evidenced in the experience-low credible condition than in the rest of the conditions together, while for support arguments, the pattern was reversed. The interaction findings too were significant and in the expected direction for both counter as well as support arguments.

Believability. There was a strong correlation between the items measuring believability and the extent to which subjects believed the claim to be true ($r = .89$, $p < .001$), so these items were combined to create an aggregate believability measure. Table 7 presents the means of this

measure as well as the other dependent measures, as a function of experimental condition. Consistent with H2, a planned contrast demonstrated that the mean believability associated with the experience-low credibility condition was significantly lower than in other conditions. As with cognitive responses, interaction findings for believability supported our predictions.

INSERT TABLE 7 ABOUT HERE

Belief Confidence and Evaluations. Analyses of responses to the belief confidence question showed that, consistent with H3, participants expressed more confidence when the claim was search, or when the source was highly credible than when the claim was experience and delivered by a low credible source. Because of the high alpha across items measuring attitudes towards Wolverine (0.95), these items are condensed into one evaluation measure. Evaluations of the bike were consistent with H4 with participants tending to rate the Wolverine less positively when it was supported by an experience claim made by a low credible source than in the other conditions. Interaction between claim type and source credibility was significant for belief confidence and directional for evaluations.

Treatment Effects: Cameras

Cognitive Responses. Results of planned comparisons provided evidence that the experience-low credible message elicited fewer support arguments than the other three messages combined and was counter argued more. These findings together supported H1. Interaction findings failed to reach significance for both counter arguments as well as support arguments. However, simple effects tests revealed that in the experience attribute condition, as compared to high credibility sources, low credibility sources elicited significantly more counter arguments

and directionally fewer support arguments. Also, in the low credibility source condition, experience attribute information engendered more counter argumentation than search attribute information as well as less support argumentation.

Believability. The questionnaire items measuring the extent to which subjects thought the ad claim was believable and true were highly correlated for cameras as well ($r = .79$, $p < 0.001$) and were aggregated for the purpose of the analyses. Table 8 presents this aggregate measure of the believability of camera ad claims, as well as the other dependent variables, as a function of condition. A planned contrast compared the mean believability of the experience-low credibility camera ad with the mean believability of the other ads. This analysis demonstrated that, consistent with H2, the experience-low credible ad was less believable than the other ads. The claim type X source credibility interaction was significant for believability. Simple effects tests were also significant and in the expected direction. As in the first study, none of the potential covariates moderated this, or any other, effect in Experiment 2.

INSERT TABLE 8 ABOUT HERE

Belief Confidence and Evaluations. Analyses comparing belief confidence and product evaluations in the experience-low credibility condition with the other conditions provided supportive results. The average confidence of subjects in the experience-low credibility condition was lower as compared to the other conditions. The interaction findings for belief confidence were directional but not significant. Owing to the high alpha among different attitude measures (0.89), these items were combined to form a summary evaluation measure. Although average camera evaluation among experience-low credibility subjects was lower than in the other

conditions, this difference only approached significance. The interaction between claim type and source credibility was significant for camera evaluations.

DISCUSSION

Findings of the second experiment closely paralleled those of the first experiment. In general, we found that regardless of the source type (within or without text) and the category, a low credibility source associated with an experience attribute claim was the least persuasive of the four types of claims examined in this study. Thus we believe we have largely refuted the alternative explanation that resulted from study 1.

GENERAL DISCUSSION

Consumers' assessment of quality has been a central concern among researchers in economics as well as consumer behavior. In this paper, we have shown that consumers can evaluate a product's search qualities without relying on signals (the signal we have used is the message source but this logic may extend to other signals like brand name, price or warranty). However, reliance on these signals increases when consumers are trying to evaluate experience qualities which are unobservable prior to purchase and consumption. In situations where the consumer has no information other than that contained in the product message, she may look to a source as a cue and verify experience information only when the source is credible. The results of the two experiments are generally consistent with this model. Source credibility and the type of claim impacted several variables that are important determinants of persuasion. When an experience claim was presented with endorsement from a highly credible source, message recipients made fewer counter arguments and more support arguments vis-à-vis when the same experience claim was endorsed by a low credibility source. In addition, believability of an experience claim was enhanced as was belief confidence when the claim was made by a source

relatively high in credibility. Product evaluation data was mixed, possibly because the measures to elicit evaluations were themselves weak

Our results appear consistent with the signaling framework now routinely employed by economists (see, for instance Horstmann and MacDonald 1994, Kihlstrom and Riordan 1984, Milgrom and Roberts 1986, Nelson 1974, and Spence 1974, 1977 among others). Most of the research on signaling concerns itself with the use of signals to communicate information credibly and persuasively. Ippolito (1990) was among the earliest researchers to provided an explanation of why signals may or may not work as tools of persuasion. She contended that quality signals are effective as mechanisms to communicate quality not observable before purchase/consumption only so long as these signals have the capacity to financially "bond" performance. "Bonding occurs when some asset or wealth is forfeited under specified conditions" (p 42). The greater the bond between the signal and performance, the stronger the quality signal and the higher the size of the resulting quality premium. While the signaling literature has examined advertising as a signal at a macro-level, little research has been devoted to examining the micro-processing of various message cues from a signaling viewpoint (Boulding and Kirmani 1993 is the one exception).

The question then becomes, is there a bond created by the use of a message source and product performance? Celebrity endorsement (i.e., within-text use of message source) is a highly ubiquitous form of mass communication in the US. By some estimates, 10% of all money spent on television advertising goes towards paying celebrities for endorsing advertised brands (Sherman 1985). Several studies have investigated consumer response to celebrity endorsements and have found positive effects on believability (Kamins, Brand, Hoeke, and Moe 1989), message recall (Friedman and Friedman 1979), brand name recognition (Petty, Cacioppo, and

Schumann 1983), brand attitudes (Kamins et al 1989), and purchase likelihood (Heath, McCarthy, and Mothersbaugh 1994; Kahle and Homer 1985). In a study examining the economic worth of celebrity endorsers, Agarwal and Kamakura (1995) used event study methodology (e.g., Horsky and Swyngedouw 1987) and found that 110 announcements of celebrity endorsements had a positive impact on stock returns. This led the authors to conclude that "celebrity endorsements are generally viewed as worthwhile investment in advertising" (p. 56). Thus, there is sufficient evidence in literature that indicates that use of endorsers creates a credible bond among consumers (as well as investors), suggesting that use of a message source as a signal can be profitably viewed from a signaling perspective, with a source impacting the bond between itself and product performance.

Research on decision making under ambiguity and uncertainty is also supportive of our findings. For instance, Muthukrishnan (1995) has demonstrated that when the decision environment is ambiguous, such ambiguity creates an advantage for the incumbent brand (the brand a consumer currently uses) vs. the attack brand (a new, superior competitor). Presumably, familiarity and experience with the incumbent make it a more reliable source of satisfactory consumption information than the competitor. Further, as Sparkman and Locander (1980) show, consumers attach higher credibility to judgments based on direct experience and this experience in turn "can enhance confidence in beliefs" (Muthukrishnan 1995, p. 99). Moon and Tikoo (1997) have also found that in inferring the value of a missing attribute for a brand, consumers rely more on a correlated attribute of the brand rather than on the value of this attribute possessed by other brands. Further, consumers tend to use other-brand information only when it is highly diagnostic. In other words, consumers look for a credible information source in making inference associated with uncertainty. In the area of social psychology, Mullin and Hogg (1999), in a study

on uncertainty, showed that subjects tended to identify with their own group and desired to obtain consensual validation from ingroup members (high credibility sources) when they were uncertain about their judgments on important dimensions carrying implications for the self-concept. Finally, Bachman and Freeborn's (1999) study among HMO physicians examined whether or not primary care physicians' (PCP) affective reactions to uncertainty were associated with use of referral and found that uncertainty and referral rates were positively correlated. This result suggests that PCPs use referrals (a proxy for high credibility sources) more under conditions of high uncertainty. Each of these studies indicates that subjects look for and rely on a credible source of information pertaining to an experiential entity, a conclusion in agreement with our theoretical reasoning and results.

In the Theoretical Background section, we speculated on two possible mechanisms that may mediate consumer response to search and experience claims backed by sources of varying credibility – respondent attributions about advertiser motivation (manipulative intent) and use of the source credibility heuristic. Source derogation data provided support for the attribution mechanism. In addition, we coded thoughts based on perceived manipulative intent of the advertiser (which are expected to be a subset of the source derogation related thoughts). Unfortunately, the number of such thoughts was negligible (less than 5% in each of the conditions). Thus, our study only partially addresses the question regarding the mechanism underlying receipt of search and experience claims featuring sources of varying credibility.

We have thus far discussed the low (high) effectiveness of credible sources in endorsing a search (experience) claim from a believability and persuasion viewpoint. It is, however, likely that featuring an endorser may impact ad effectiveness on dimensions other than believability and persuasion. The instance of the website, Priceline, is a case in point. *Priceline.com* is a

website where consumers can quote a price they are willing to pay for an airline ticket. The site owner then decides whether the ticket can be offered at the consumer's suggested price. Advertising for this site informs consumers of the benefit of the site ("you can quote your price") and employs Mr. William Shatner (of Star Trek fame) as its spokesperson. It is not clear how Mr. Shatner enhances believability and persuasion of what appears to be a search claim. Kamins (1990) argues that unless the dimension of the source matches up with the featured attribute (e.g., physical attractiveness of a celebrity and beauty enhancement properties of a product), it is of little use. From this argument, it is also not clear whether target consumers perceive Mr. Shatner to be an expert on pricing of airline tickets or trustworthy about airline ticket prices in general. The use of Mr. Shatner here may be driven by the high familiarity (and possibly likability) he enjoys with the audience, and his consequent ability to grab attention and thus impact recall. This in turn may persuade consumers to log on to the site. Thus, employing well-known spokespeople may be useful for ads featuring search claims insofar as it leads the consumers to pay more attention and aids in message recall.

Our findings suggest that a high credibility source contributes more to believability and persuasiveness of an experience attribute based communication than it does to a search attribute based message. This broad conclusion has implications for deciding how prominent the manufacturer of a good should be in its advertising. If an ad makes an experience claim, and the manufacturer has a strong reputation *relevant to the claim* ('Match-Up' Hypothesis; see Kamins 1990), then the manufacturer's name can be highlighted profitably in the ad. Alternatively, if an unknown producer or one low in credibility must be present in an ad, our research suggests that a search (versus experience) claim should be forwarded and/or the manufacturer's name should be

underplayed. If a low credibility advertiser must employ an experience claim, using a within-text high credibility source can be profitable.

This discussion leads us to speculate on the possible mechanism by which source credibility may impact message effectiveness for search and experience claims. It is likely that using a source high in familiarity and likability enhances effectiveness of a search claim because of the positive affect generated by the source and the source's ability to engender greater attention and message recall. For an experience claim to be more effective, the source's expertise and trustworthiness may be more critical. An expert and trustworthy source possibly helps enhance persuasion for an experience claim through lowering counter argumentation and enhancing message believability.

Another question stemming from our research is what source to employ – a celebrity endorser or the company name itself. Our data suggests that both types of sources have similar effects on the dependent measure used in our study. Therefore, it is possible to conclude that either source type can be used with the same effectiveness. However, more research is required to address this important question more definitively. It is possible that the ultimate answer depends on what role the source plays in persuasion – enhancing recall through attention or deeper processing of the message content – and what attributions consumers associate with the source.

FUTURE DIRECTIONS

Dholakia and Sternthal (1977) delineated two constructs – expertise and trustworthiness - as the dimensions underlying source credibility. A third dimension has been suggested in research conducted by Caballero and Pride (1984), Chaiken (1987), and Kahle and Homer (1985), among others. These authors have found that *physical attractiveness* of a source

facilitates attitude change toward issues, products, and ad evaluations. An area for future research is to investigate how different manipulations of credibility affect believability. In addition to expertise, trustworthiness, and physical attractiveness, other source characteristics may be within-text and without-text.

Another useful extension of this research would be to explore how the credibility of the source of a *credence* claim (i.e., a claim not verifiable even after purchase; see Darby and Karni 1974) affects believability of the claim and judgments about the (credence) quality of the product. In theory, message source should play an even more critical role in impacting believability of a credence claim than it does for an experience claim. However, it is also likely that if consumers perceive that fraudulent credence claims are unlikely because of the vigilant legal system, then such claims may not need any endorsement. For instance, a credence claim made routinely by various brands of sunglasses is their ability to protect from UV Rays. In such contexts (where regulation is strongly enforced), a credence claim may be processed similar to a search claim.

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Table 1

Means of Credibility Manipulation Check Items: Mountain Bike Ads (Experiment 1)

	Source Credibility		
Item	low	high	F-test
Trustworthiness	2.7	4.5	$F(1,79) = 14.70$••••
Expertise	2.8	6.2	$F(1,79) = 59.04$••••
Overall Credibility	2.7	5.6	$F(1,79) = 44.35$••••
Source Index	2.7	5.4	$F(1,79) = 53.66$••••
Source Derogations	1.53	0.58	$F(1,79) = 26.99$••••

• $p < .1$; •• $p < .05$; ••• $p < .01$; •••• $p < .001$.

Table 2

Means of Credibility Manipulation Check Items: Camera Ads (Experiment 1)

	Source Credibility		
Item	low	high	F-test
Trustworthiness	5.3	5.6	$F(1,79) < 1$
Expertise	3.3	5.0	$F(1,79) = 27.68$••••
Overall Credibility	3.3	4.2	$F(1,79) = 7.21$•••
Source Index	4.0	4.9	$F(1,79) = 12.06$••••
Source Derogations	0.49	0.05	$F(1,79) = 11.36$••••

• $p < .1$; •• $p < .05$; ••• $p < .01$; •••• $p < .001$.

Table 3

Means of Dependent Variables as a Function of Attribute Type and Source Credibility: Mountain Bike Ads (Experiment 1)

Item and Attribute Type	Source Credibility		F-test of overall 2x2 interaction	F-test of simple effect of source credibility for experience data	F-test of simple effect of type of claim for low credible source	F-test of [3] planned contrasts
	low	high				
Believability						
Search	5.3	5.8	$\underline{F}(1,76)=7.29$••[1,2]	$\underline{F}(1,39)=24.41$•••	$\underline{F}(1,41)=18.95$•••	$\underline{F}(1,78)=34.46$•••
Experience	3.2	5.7				
Counter Arguments						
Search	0.26	0.19	$\underline{F}(1,77)=5.04$••[1,2]	$\underline{F}(1,39)=7.42$••	$\underline{F}(1,41)=7.61$••	$\underline{F}(1,79)=21.54$•••
Experience	1.04	0.24				
Support Arguments						

Search	1.16	1.10	$\underline{F}(1,77)=3.08\bullet^{2}$	$\underline{F}(1,39)=4.64\bullet\bullet$	$\underline{F}(1,41)=31.40\bullet\bullet\bullet\bullet$	$\underline{F}(1,79)=27.39\bullet\bullet\bullet\bullet$
Experience	0.21	0.59				
Confidence						
Search	6.3	6.7	$\underline{F}(1,77)=2.86\bullet^{1,2}$	$\underline{F}(1,39)=10.80\bullet\bullet\bullet$	$\underline{F}(1,41)=17.49\bullet\bullet\bullet\bullet$	$\underline{F}(1,79)=27.62\bullet\bullet\bullet\bullet$
Experience	3.7	5.5				
Evaluation						
Search	5.2	5.3	$\underline{F}(1,76)=3.87\bullet^{1}$	$\underline{F}(1,39)=9.40\bullet\bullet\bullet$	$\underline{F}(1,41)=5.34\bullet\bullet$	$\underline{F}(1,79)=11.86\bullet\bullet\bullet\bullet$
Experience	4.3	5.5				

[1] significant main effect of source credibility at $\alpha < .05$.

[2] significant main effect of type of claim at $\alpha < .05$.

[3] contrast: experience/low credibility vs. the other three cells

$\bullet\, p < .1; \bullet\bullet\, \underline{p} < .05; \bullet\bullet\bullet\, \underline{p} < .01; \bullet\bullet\bullet\bullet\, \underline{p} < .001.$

Table 4

Means of Dependent Variables as a Function of Attribute Type and Source Credibility: Camera Ads (Experiment 1)

Item and Attribute Type	Source Credibility low	high	F-test of overall 2x2 interaction	F-test of simple effect of source credibility for experience data	F-test of simple effect of type of claim for low credible source	F-test of [3] planned contrasts
Believability						
Search	5.9	5.8	$F(1,76)=1.08$	$F(1,39)=1.73$	$F(1,40)=4.58$••	$F(1,78)=4.83$••
Experience	4.7	5.5				
Counter Arguments						
Search	0.37	0.67	$F(1,77)=9.34$•••	$F(1,39)=7.57$•••	$F(1,41)=5.81$••	$F(1,79)=9.93$•••
Experience	1.04	0.24				
Support Arguments						

Search	1.16	1.10	$\underline{F}(1,77)<1^2$	$\underline{F}(1,39)=1.31$	$\underline{F}(1,41)=7.38$•••	$\underline{F}(1,79)=7.79$•••
Experience	0.42	0.65				
Confidence						
Search	5.7	5.7	$\underline{F}(1,77)<1$	$\underline{F}(1,39)=1.15$	$\underline{F}(1,41)=1.63$	$\underline{F}(1,79)=2.08$•
Experience	4.9	5.6				
Evaluation						
Search	5.1	5.6	$\underline{F}(1,76)<1$	$\underline{F}(1,39)<1$	$\underline{F}(1,41)<1$	$\underline{F}(1,79)<1$
Experience	5.1	5.5				

[1] significant main effect of source credibility at $\alpha < .05$.

[2] significant main effect of type of claim at $\alpha < .05$.

[3] contrast: experience/low credibility vs. the other three cells.

• $p < .1$; •• $p < .05$; ••• $p < .01$; •••• $p < .001$.

Table 5

Means of Credibility Manipulation Check Items: Mountain Bike Ads (Experiment 2)

	Source Credibility		
Item	low	high	F-test
Trustworthiness	5.2	6.0	$F(1,79) = 5.52$••
Expertise	3.6	4.7	$F(1,78) = 6.46$••
Overall Credibility	3.4	4.4	$F(1,78) = 6.46$••
Source Index	4.1	5.0	$F(1,78) = 9.32$•••
Source Derogations	0.45	0.00	$F(1,77) = 10.63$•••

• $p < .1$; •• $p < .05$; ••• $p < .01$; •••• $p < .001$.

Table 6

Means of Credibility Manipulation Check Items: Camera Ads (Experiment 2)

Item	Source Credibility		
	low	high	F-test
Trustworthiness	2.5	4.0	$\underline{F}(1,78) = 11.78$••••
Expertise	2.4	5.2	$\underline{F}(1,78) = 42.64$••••
Overall Credibility	2.4	4.4	$\underline{F}(1,78) = 23.86$••••
Source Index	2.4	4.4	$\underline{F}(1,77) = 33.40$••••
Source Derogations	2.06	0.61	$\underline{F}(1,77) = 23.37$••••

• $\underline{p} < .1$; •• $\underline{p} < .05$; ••• $\underline{p} < .01$; •••• $\underline{p} < .001$.

Table 7

Means of Dependent Variables as a Function of Attribute Type and Source Credibility: Mountain Bike Ads (Experiment 2)

Item and Attribute Type	Source Credibility low	high	F-test of overall 2x2 interaction	F-test of simple effect of source credibility for experience data	F-test of simple effect of type of claim for low credible source	F-test of[3] planned contrasts
Believability						
Search	6.7	5.8	$F(1,76)=6.08$••[2]	$F(1,41)=3.65$•	$F(1,50)=23.98$•••	$F(1,78)=20.13$•••
Experience	4.2	5.6				
Counter Arguments						
Search	0.09	0.29	$F(1,75)=5.08$••[2]	$F(1,41)=3.70$•	$F(1,49)=13.71$•••	$F(1,77)=14.00$•••
Experience	0.69	0.29				
Support Arguments						

Search	1.77	1.07	$F_{(1,75)}=6.71$••[2]	$F_{(1,41)}=4.22$••	$F_{(1,49)}=35.26$••••	$F_{(1,77)}=21.59$••••
Experience	0.21	0.57				

Confidence

Search	6.9	6.6	$F_{(1,77)}=6.06$••[2]	$F_{(1,42)}=9.00$•••	$F_{(1,51)}=14.76$••••	$F_{(1,79)}=21.79$••••
Experience	4.6	7.0				

Evaluation

Search	5.6	5.5	$F_{(1,76)}=1.93$	$F_{(1,41)}=4.25$••	$F_{(1,50)}=5.80$••	$F_{(1,78)}=9.21$•••
Experience	4.5	5.8				

[1] significant main effect of source credibility at $\alpha < .05$.

[2] significant main effect of type of claim at $\alpha < .05$.

[3] contrast: experience/low credibility vs. the other three cells

• $p < .1$; •• $p < .05$; ••• $p < .01$; •••• $p < .001$.

Table 8

Means of Dependent Variables as a Function of Attribute Type and Source Credibility: Camera Ads (Experiment 2)

Item and Attribute Type	Source Credibility low	high	F-test of overall 2x2 interaction	F-test of simple effect of source credibility for experience data	F-test of simple effect of type of claim for low credible source	F-test of[3] planned contrasts
Believability						
Search	5.3	4.4	$F(1,75)=8.81$•••	$F(1,40)=9.14$•••	$F(1,50)=8.66$••	$F(1,77)=4.77$••
Experience	3.7	5.5				
Counter Arguments						
Search	0.27	0.07	$F(1,75) < 1$[1,2]	$F(1,41)=3.25$•	$F(1,49)=4.90$••	$F(1,77)=12.21$•••
Experience	0.83	0.29				
Support Arguments						

Search	0.64	0.71	$\underline{F}(1,75) < 1^2$	$\underline{F}(1,41)=2.33$	$\underline{F}(1,49)=5.70\bullet\bullet$	$\underline{F}(1,77)=6.98\bullet\bullet\bullet$
Experience	0.21	0.50				
Confidence						
Search	5.9	6.1	$\underline{F}(1,76) < 1$	$\underline{F}(1,41)=2.55$	$\underline{F}(1,51)=3.98\bullet$	$\underline{F}(1,78)=8.24\bullet\bullet\bullet$
Experience	4.7	5.8				
Evaluation						
Search	4.2	3.8	$\underline{F}(1,73)=6.35\bullet\bullet$	$\underline{F}(1,40)=6.55\bullet\bullet$	$\underline{F}(1,50)=1.03\bullet$	$\underline{F}(1,75)=2.23$
Experience	3.8	5.1				

[1] significant main effect of source credibility at $\alpha < .05$.

[2] significant main effect of type of claim at $\alpha < .05$.

[3] contrast: experience/low credibility vs. the other three cells

• p < .1; •• p < .05; ••• p < .01; •••• p < .001.