

WWW

WHY ARE YOU TELLING ME THIS? AN EXAMINATION INTO NEGATIVE CONSUMER REVIEWS ON THE WEB

SHAHANA SEN AND DAWN LERMAN

SHAHANA SEN

is an Assistant Professor of Marketing
Silberman College of Business,
Fairleigh Dickinson University in
New Jersey; e-mail: sen@fd.edu

DAWN LERMAN

is an Assistant Professor of Marketing
at Fordham University in New York

The authors acknowledge the helpful
inputs of the editor and the two
anonymous reviewers. Additionally,
Gita Johar, Amitav Chakravarti,
Durairaj Maheswaran, Geeta Menon,
and Pragya Mathur provided valuable
comments on earlier versions of
this article, and are gratefully
acknowledged.

Although word-of-mouth (WOM) is recognized as a powerful force in persuasion, we know little about the new communication phenomenon known as e-WOM. One of the main forms of e-WOM is the product reviews consumers post on different Web sites, and how this form of e-WOM stands up to this claim is yet unknown. For example, do consumers trust the accuracy of these reviews posted by anonymous reviewers, and, do readers trust negative and positive reviews equally? Past research has shown that people tend to weight negative information more than positive information during evaluation. Through an observation study and two laboratory experiments, we investigate the existence of this negativity effect in e-WOM consumer reviews for utilitarian versus hedonic products, and investigate the influence of the reader's attributions regarding the reviewer's motivations on this. Both types of studies show that product type moderates the effect of review valence, and readers exhibit a negativity bias for utilitarian product reviews only. Furthermore, the lab studies show that the reader's attributions about the motivations of the reviewer mediate the effect of this moderation on their attitude about the review. We find that compared with the utilitarian case, readers of negative hedonic product reviews are more likely to attribute the negative opinions expressed, to the reviewer's internal (or non-product related) reasons; and therefore are less likely to find the negative reviews useful. However, in the utilitarian case, readers' are more likely to attribute the reviewer's negative opinions to external (or product related) motivations, and therefore find negative reviews more useful than positive reviews on average.

© 2007 Wiley Periodicals, Inc. and Direct Marketing Educational Foundation, Inc.

JOURNAL OF INTERACTIVE MARKETING VOLUME 21 / NUMBER 4 / AUTUMN 2007
Published online in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/dir.20090

Word-of-mouth (WOM) is acknowledged to be a powerful force in the consumer marketplace (Hutton & Mulhern, 2002; Katz & Lazarsfeld, 1957; Silverman, 1997; Whyte, 1954). Historically, WOM has constituted a face-to-face conversation between consumers about a product or a service experience. As an unpaid endorsement for products or services, WOM can be the most believable form of advertising for marketers (Henricks, 1998). With the advent of the Internet, a less personal but more ubiquitous form of WOM, viz. e-WOM consumer reviews, has come into vogue (Bickart & Schindler, 2001; Chen, Fay, & Wang 2002; Godes & Mayzlin, 2004; Hennig-Thurau et al., 2004). In e-WOM consumer reviews, consumers need only interact with their computers to post their product reviews. Their opinions are widely and easily accessible to other consumers, but are only disseminated if and when other consumers—presumably searching for information on the type of products reviewed—access them.

Recognizing the significant value of consumer product reviews as a source of information and thus Web site trust for potential customers, marketers enable and encourage consumers to post product reviews and opinions on their e-retail sites (Mayzlin, 2006; Tedeschi, 1999; Yang & Peterson, 2003; Bart et al., 2005). A consumer looking for a book at Amazon.com, for example, is offered not only the editorial review typically printed on the book's cover jacket but also ratings and comments by fellow consumers who have read the book. Amazon has eliminated its entire budget for television and general-purpose print advertising since it believes that its consumers trust other consumers' opinions more than they do traditional advertising, and that such e-WOM is thus more effective in influencing consumer behavior (Thompson 2003). Amazon and other popular Web retailers, e.g., Half.com, actively seek consumer opinions by sending buyers reminder emails asking them to post reviews about products they had bought, if the buyer had not already posted a review on their own. Although books may have been one of the first categories to inspire consumer reviews on the Web, e-WOM now includes a wide variety of consumer product categories. Web sites such as *epinions.com*, *ConsumerReview.com*, *consumersearch.com*, and *dooyoo.co.uk* dedicate themselves to e-WOM across a wide variety of product categories. Godes and Mayzlin (2004) note that measuring

the e-WOM generated by a firm's product is important for understanding a product's past sales level and for predicting its future sales.

As with offline search behavior (Keller & Staelin, 1987; Malhotra, 1982), a consumer searching for product information in cyberspace does not read every relevant e-WOM recommendation before making a purchase decision (Chatterjee, 2001). Doing so would be nearly impossible given the number of Web sites dedicated to providing consumer reviews and the time pressure consumers often face in searching for and purchasing products (Payne, Bettman, & Johnson, 1988). Even a single Web site may contain far more reviews than consumers can process. How then do consumers select the reviews they read? Do they believe what they read and trust the motivations of the anonymous reviewer, as they likely would if they received this information from a family member or a friend (someone with whom they have strong ties) as in traditional WOM? Researchers have found that strong ties bear greater influence on the receiver's opinions and behavior than weaker ties (Brown & Reingen, 1987; Godes & Mayzlin, 2004; among others). What, then, is the reader's response to the e-WOM information received from someone with whom they have the weakest of ties? Do consumers really find these reviews useful and to what degree do they rely on them when making a purchase decision?

Typically, an e-WOM product review is written to either recommend or discourage others from buying the product. Accordingly, reviews offer positive arguments in support of the product or negative opinions against it. Research on offline behavior suggests that consumers pay more attention to negative information than to positive information (Herr, Kardes, & Kim, 1991). In this paper, we investigate the existence of a similar bias in online behavior. More specifically, we argue that the existence of a negativity bias in this context depends on the type of product being reviewed—hedonic versus utilitarian—because of differences in the nature of the consumption processes related to such products (Adaval, 2001; Batra & Ahtola, 1990; Dhar & Wertenbroch, 2000; Hirschmann & Holbrook, 1982).

Mayzlin (2006) notes that on the firm's side, marketers have incentives to supply promotional chat or reviews

in order to influence the consumer's evaluation of their products. They also note, that firms can (and do) disguise their promotions as consumer recommendations due to the anonymity enjoyed by the e-WOM reviewers. This problem about the genuineness of the WOM on the Web is not unknown to consumers. Our second objective therefore is to study readers' attitudes toward the anonymous product reviewers themselves—their inferences regarding the e-WOM reviewer's motivation in writing a negative versus a positive review, and whether this inference mediates their attitudes about the review itself. We study the reader's opinions on the genuineness of the review using the attribution theory paradigm, in the tradition of previous studies on traditional WOM (e.g., Curren & Folkes, 1987; Mizerski, 1982), viz. whether she attributes the reviewer's opinions to product related motivations, or on the contrary, thinks that these are motivated by self-serving or other non-product-related reasons. Understanding this attribution is important because it can affect the subsequent attitudes and behaviors of the reader (Folkes, 1988). For this reason, we investigate whether reader's attitudes about the usefulness of the review is mediated by product or non-product-related attributions. Eagly, Wood, and Chaiken (1978) had found that message persuasiveness is affected by a recipient's causal inference about the communicator having a knowledge or a reporting bias. We believe that the trust that the reviewer's opinions are based on *external* (product, or other related aspect) and not *internal* (subjective, or reviewer related) reasons, will determine the review's *usefulness* to the reader.

USEFULNESS OF POSITIVE VERSUS NEGATIVE e-WOM

In e-WOM, there exists a vast and efficiently accessible reservoir of publicly available person-to-person communication which is available to consumers. Marketers and researchers may also use this communication, for example, to study and gain a better understanding of the relationship between online e-WOM and offline sales (Godes & Mayzlin, 2004). According to the authors, there is also need for research to understand the extent to which online WOM is similar to or different from offline WOM. It is not surprising that given the relative newness of

e-WOM as a phenomenon, there exists little research on consumer perceptions of positive versus negative e-WOM as yet. The few exceptions include a study by Ward and Ostrom (2002) on motives for posting negative reviews of companies on the Internet and another by Chatterjee (2001) on the effect of negative reviews on retailer evaluation and patronage intention.

Research in other areas of consumer behavior has found strong evidence that negative information has more value to the receiver of WOM communication than positive information, and therefore, consumers weight negative information more heavily than positive information, in both judgment and decision-making tasks (Ahluwalia & Shiv, 1997; Feldman, 1966; Kanouse & Hanson, 1972; Skowronski & Carlston, 1987; Weinberger, Allen, & Dillon, 1981). Researchers explain this widely observed *negativity effect* as a function of the individual's social environment. Because one's social environment contains a greater number of positive than negative cues, negative cues are perceived as counter normative (Feldman, 1966; Zajonc, 1968; Kanouse & Hanson, 1972). Therefore, the negative cues that do appear, tend to attract attention and are heavily attributed to the stimulus object, more so than positive cues (Kanouse & Hanson, 1972). Similarly, within a consumer behavior context, Weinberger and Dillon (1980) found that unfavorable product ratings tended to have a greater impact on purchase intention than did favorable product ratings.

We expect the negativity effect that has been so frequently observed in offline behavior to also exist in online consumer behavior. In this case, consumers will be more likely to consider negative e-WOM reviews than positive e-WOM reviews for their decision-making. We expect readers to believe negative reviews to be more accurate than positive reviews and thus be more likely to read and use these in their decision making. However, we pose an intriguing question: Does the type of product being considered by the consumer moderate the usefulness of the e-WOM consumer review?

Negative Reviews for Hedonic versus Utilitarian Products

According to traditional economic theory, products are evaluated by their potential to maximize a consumer's

utility, where utility is measured as a function of the product's tangible attributes (Drolet, Simonson, & Tversky 2000). Within the marketing literature, choice and decision making with respect to utilitarian products, such as dishwashers and other consumer durables, are very much informed by this utility-maximizing perspective. Specifically, consumer judgment with respect to these products tends to be cognitively driven, instrumental and goal-oriented, and accomplish a functional or practical task (Strahilevitz & Meyers, 1998). However, not all products reviewed on the Web are intended to satisfy a utilitarian function. Rather, their consumption is primarily characterized by an affective and sensory experience of aesthetic or sensual pleasure, fantasy, and fun (Hirschman & Holbrook, 1982). The hedonic nature of such products (e.g., music, art, and movies) satisfies emotional wants. Thus, during the evaluation of hedonic products, consumers generally assign greater weight to hedonic attributes or aspects of consumption than to concrete attributes (Batra & Ahtola, 1990; Hirschman, & Holbrook 1982). Within this context, hedonic consumption is tied to imaginative constructions of reality (Singer, 1966), which is not necessarily based on what consumers know to be real but, rather, on what they desire reality to be (Hirschman & Holbrook, 1982).

The affect-confirmation hypothesis offers an explanation of the differences in consumer behavior for hedonic versus utilitarian products. This hypothesis was proposed by Adaval (2001) who found that subjects who base their product judgments on hedonic criteria (e.g., the feelings that the consumers expect to experience as a result of using the product) gave greater weight to attribute information when this information was evaluatively consistent with their mood than when it was inconsistent with their mood. This differential weighting was not evident when participants based their judgments on utilitarian criteria (e.g., the product's ability to perform a useful function).

Research by Adaval (2001) and others is useful for understanding how consumers are likely to respond to reviews for hedonic versus utilitarian products. Consumers likely anticipate a positive mood when reading reviews for hedonic products (because they are looking forward to choosing a product that will make them feel good). As a result of the affect confirmation process, then, they should discount the negative

information they read in the hedonic product review as it is inconsistent with their current or anticipated mood. This should not be the case, however, when reading a review for a utilitarian product, as research suggests that affect has little effect on evaluations based on utilitarian criteria (Adaval, 2001; Pham, 1998).

Regardless of mood, differences in the decision making process for hedonic versus utilitarian products should also affect the perceived usefulness of negative reviews. In the case of utilitarian products, consumers are primarily concerned with the immediate consequences of consumption (Batra & Ahtola 2001, Mort & Rose 2004). Negative experiences with tangible attributes can directly impact the utility that the consumer will likely derive from the product. Because the goal of utilitarian consumption is to maximize utility, such negativity will likely be weighted rather heavily when evaluating a utilitarian product. Importantly, because utility maximization is based on tangible, seemingly objective criteria, consumers should feel rather comfortable relying on other consumers' evaluations.

In contrast, the evaluation of hedonic products is linked to expectations regarding the likely achievement of a certain value (e.g., happy fulfilled life) (Mort & Rose, 2004). Whereas the desire to achieve a happy, fulfilled life may be shared by many consumers, the path via which to achieve such a life will likely vary from person to person. In other words, the evaluation of a hedonic product and its relevance to a particular value is rather subjective and may not apply to another consumer. As a result, a negative review for a hedonic product by an anonymous reviewer will likely be perceived as less useful than a negative review for a utilitarian product. Thus, product type moderates the effect of review valence on usefulness and we hypothesize that:

H1: The usefulness of e-WOM consumer reviews will be influenced by the interaction between product type and review valence, such that readers are likely to consider negative reviews more useful than positive reviews (i.e., will show a negativity effect) for utilitarian products than for hedonic products.

Before doing a controlled laboratory investigation of this hypothesis, we conducted an empirical observation study, which is described next.

STUDY 1

The data for the observation study came from the Web site of a leading e-retailer that posts a large numbers of consumer reviews across a wide product range.

Method

Data Collection. In order to ensure that the data collected for the observational study was unbiased, we were assisted by a graduate student who was not informed of our research hypothesis. Consumer review posted on the e-retailer’s Web site served as the sampling unit for the study and the design of the study was between-subjects. Our graduate assistant followed a two-stage quota sampling method to select the sample and collect the data, as described here.

Product Categories. Pretests within the sample population helped us to select five utilitarian and five hedonic product categories from among the e-retailer’s merchandise. The utilitarian products were cell phones, digital cameras, PDAs, computer monitors and printers, and hedonic were music CDs, fiction books, general magazines, movie videos, and DVDs.

First stage of Quota Sampling—Selecting the Product Item from the e-Retailer’s Merchandise (Primary Sampling Unit). Using a quota sampling method, for each of the five utilitarian product categories (viz. cell phones, digital cameras, PDAs, computer monitors, and printers), our assistant selected five items (or specific models, e.g., Motorola V 60T, Nokia 3390, Panasonic Versio 320, Sanyo SCP 5300, and Handspring VisorPhone 6007NA), which had at least one positive consumer review posted on its Web page (item was rated 5 or 4 out of 5 stars by at least one reviewer). He repeated this to find 5 items with at least one negative review (i.e., at least one reviewer had rated the item a 1 or a 2 out of 5 stars) for each utilitarian product category; thus selecting 50 utilitarian products with positive or negative ratings. He repeated these steps for the five hedonic products (CDs, fiction books, general magazines, movie videos and DVDs) to select 50 hedonic items with negative or positive consumer reviews. Thus, overall, our assistant had selected 100 items from the e-retailer’s merchandise (see Table 1).

TABLE 1

Number of Reviews Selected from the e-Retailer’s Site

Product Type	PRODUCT RATING BY REVIEWER		TOTAL
	Negative	Positive	
Hedonic	A=25	C=25	50
Utilitarian	B=25	D=25	50
Total	50	50	100

Second stage of Quota Sampling—Selecting the Review (Secondary Sampling Unit). Having identified the items for our study, our assistant selected one consumer review¹ for each item — either negative or positive depending on the conditions (see Table 1).

Helpfulness Ratings Data Collection. As shown in Table 1, these 100 reviews were equally divided between hedonic and utilitarian products (as seen in the row totals), and within each, equally divided between negative and positive ratings for the product (as seen in the column totals). The e-retailer provided readers the option to rate each review as to its helpfulness to them, on a dichotomous scale: helpful versus not helpful (see Exhibit 1a and 1b). For example, in Exhibit 1a, 10 out of 13 readers rated the negative review on the flat screen monitor as helpful, while in Exhibit 1b, 1 out of 5 raters found the review on the DVD (movie) helpful. The next step was to collect this data on helpfulness ratings. These were recorded by our assistant for each of the 100 reviews that he collected, and we used this data to test H1.

Results

Contingency Table Analysis. We used a contingency table to help reveal the pattern in readers’ ratings of whether they found the review helpful versus not helpful (Table 2). H1 posits that the helpfulness of negative versus positive reviews to a reader is moderated by

¹ These reviews were collected over a 2-day period, although they may have been posted on the Web site over a much longer period of time (typically, reviews are not taken off the site and once posted remain on it for as long as the product is being sold).

Exhibit 1

Examples of Negative Consumer Reviews on the e-Retailer's Site

EXHIBIT 1(A): UTILITARIAN PRODUCT: FLAT SCREEN MONITOR

10 of 13 people found the following review helpful:

★☆☆☆☆ **Buyer Beware!**, July 12, 2004Reviewer: **An electronics fan**

This monitor, like the KDS monitor I bought 3 years prior, becomes too bright after approximately one year. Adjusting the brightness does not help. My NEC monitor which I have had for more than 6 years has lasted longer than two of these KDS monitors. If you can afford it, buy a better monitor.

I will not buy another KDS.

Was this review helpful to you? yes no (Report this)**EXHIBIT 1(B): HEDONIC PRODUCT: DVD**

1 of 5 people found the following review helpful:

★☆☆☆☆ **A movie to avoid on Friday and every day of the week...**, October 10, 2004

Reviewer: John Q. Public "vhspreowner" (USA) - See all my reviews

Thorton stars in this movie based on a true story of a small town football team that came from behind to win in the big games. The movie itself is not inspiring, but rather plots along due to weak casting and the really corny dialoge that Thorton makes every five seconds on film. VERY BORING.

Was this review helpful to you? yes no (Report this)

product type; and we found that the readers of negative reviews for utilitarian products showed a negativity bias. Specifically, 61% of all those who rated the helpfulness of the negative reviews for utilitarian products found these helpful, whereas 39% did not ($p < .01$); in the hedonic case, a significantly greater proportion of readers found the negative reviews “not helpful” (72% versus 28%, $p < 0.001$), supporting H1.

Based on Ahluwalia (2000), the information processing of a negative (and positive) review may be broken down into two steps—(i) decision to pay attention to and read the review (*the salience explanation for negativity*), and (ii) the actual processing of the information and the decision to use it because it is helpful (*relevance or diagnosticity of the information*). So for hedonic products, in step (i) more people read and engaged with the *negative* reviews, that is, voted whether these were helpful or not, compared to positive

reviews (viz. 267 versus 168); and in step (ii) a larger share, however, found *positive* reviews more helpful (89% voted “yes”) than the negative ones (28% voted “yes”) presumably because they were able to counter-argue the negative reviews effectively.

Our data suggests that people are either more likely to attend to and read negative reviews as compared to positive ones. At the least they are more engaged with negative reviews, and more likely to vote whether they found the review helpful or not, since overall there were 568 respondents for the 50 negative reviews versus 402, for the 50 positive reviews. Interestingly, even if the above pattern of being drawn more toward negative reviews was observed in both cases, in the case of hedonic products however, readers were more likely to discount than value the negative reviews. Readers found 72% of reviews “not helpful” as compared to 28% being “helpful.”

TABLE 2 Readers' Ratings: Utilitarian versus Hedonic Products

Type of Products		RATINGS OF REVIEWS ^a		
		Helpful	Not Helpful	Total Respondents
Utilitarian	Negative	184 (61%)	117 (39%)	301 (100%)
	Positive	210 (90%)	24 (10%)	234 (100%)
Hedonic	Negative	76 (28%)	191 (72%)	267 (100%)
	Positive	150 (89%)	18 (11%)	168 (100%)
Total Respondents		620 (64%)	350 (36%)	970 (100%)

^a The percentages shown are row-wise.

Regression Analysis. In order to measure the size of this interaction effect, we fitted a dummy variable regression model to this data, with “Product_Type” and “Review_Valence” as the independent variables (Table 3). The DV was obtained through a transformation of the information found on each review; each review recorded the number of readers who voted “yes” to the question “Was this review helpful to you?” out of the total number who voted (the remaining did not find the review helpful). We transformed this categorical variable (the total number answering “yes, it was helpful”) into the “Probability_of_Helpfulness”—which is simply the ratio of “helpful votes” to “total votes” cast by readers for each review,² and used this continuous variable as our DV. The overall model has an adjusted R-squared of .40 and is highly significant ($F = 22.55, p < .001$). As shown in Table 3, each individual regressor is highly significant, and the interaction variable Product_Type*Review_Valence has a large standardized beta coefficient = 0.465 ($t = 3.43, p < .001$). According to the model, there is a lower probability of readers finding the review useful when it is about a hedonic product; a greater probability of finding the review useful when the review is positive; and, according to the interaction term, a greater probability of finding the review useful when it is positive and about a hedonic product, or negative and about a utilitarian product.

² For example, for the review in Exhibit 1a, the probability of helpfulness would be $10/13 = 0.77$ and for the review in Exhibit 1b, it would be $1/5 = 0.20$.

Thus, the data from across a range of product categories provided support that product type moderates the effect of valence on a reader’s perception of usefulness of a consumer review. Next we analyze the possible reasons that may be behind this.

READERS’ ATTRIBUTIONS OF REVIEWER’S MOTIVATIONS IN e-WOM: INTERNAL VERSUS EXTERNAL

According to the attribution theory paradigm, readers who are considering whether or not to use an e-WOM product review, will base their decision on the causal inferences they make regarding the reviewer’s motivation in posting the review. According to Folkes (1988), consumer attitudes and behavior are frequently based on the making of causal inferences, and “many, if not most, products and services are purchased because consumers infer a causal relationship” between consuming the product and deriving the benefit sought. Attribution research has also been used to understand the causal inferences consumers make when they recommend products to other consumers and when they complain about problems (Hunt, Domzal, & Kernan 1981; Kamins & Assael, 1987). It has been used in studies designed to uncover the determinants of source credibility (e.g., Dholakia & Sternthal, 1977) and other areas dealing with consumer perception and inference formation. In our research, the attribution theory paradigm is helpful for understanding the inferences made by readers about the reviewer’s motivations in posting the review and about the veracity of the opinions in the review.

TABLE 3

Estimated Regression Coefficients in Study 1

MODEL	UNSTANDARDIZED COEFFICIENTS		STANDARDIZED COEFFICIENTS	t	SIG.
	B	STD. ERROR	BETA		
(Constant)	.709	.050		14.188	.000
Product_Type	-.335	.071	-.523	-4.734	.000
Review_Valence	.165	.071	.257	2.329	.022
Product_Type* Review_Valence	.343	.100	.465	3.431	.001

Dependent Variable: Probability_of_Helpfulness
Adjusted R-squared = .40; $F = 22.55$; $p < .001$.

Within this paradigm, Eagly, Wood, and Chaiken (1978) found that inferred communicator biases (about the accuracy in knowledge and reporting) by the recipient had an effect on the persuasiveness of the message and on opinion change.

Attribution theory explains how people make such causal inferences using their common sense explanations of the world—that people recognize two categories or types of causes: actions as a result of *personal* causes and those related to the *environmental* situation (Folkes, 1988; Heider, 1958). Readers' attributions about the reasons behind the reviewer posting the review will include whether the opinions expressed are based on *external (product)* reasons or *internal (reviewer)* reasons. Moreover, regardless of the accuracy of this inference, this perceived causality will influence the reader's subsequent actions. If readers make the attribution that the review is based on external or product reasons, they will perceive the review to be legitimate, believable and actionable, and will consider it useful. By contrast, if the readers believe that the review is based on internal or reviewer reasons, they will then discount it.

Researchers have found that this process of inferring causality is subject to biases, as is most other judgment and decision-making. Heider (1958) and subsequently others (Feldman, 1966; Jones & David, 1965; Jones & Nisbett, 1972; Kanouse & Hanson, 1972; Kelley, 1973; Zajonc, 1968) point out a number of distortions that

affect this attribution process. We discuss two of these—the correspondent inference bias and the actor versus observer bias, which are relevant to our study.

Correspondent Inference Bias. Jones and Davis (1965) and Kelley (1973) studied how observers make inferences based on perceived, actual, or situational causes, and found that if an actor behaved in an expected fashion, it was difficult for an observer to make a corresponding inference about the disposition of the actor. However, when the actor departed from the norm of expected behavior, the action provided better dispositional information to the observer. According to correspondent inference theory, this occurs when the observed behavior was unusual or unexpected, because the unusual information about the actor provides the observer with meaningful information about the actor's actual disposition.

Consistent with our earlier discussion about negative information being unusual or counter normative (Hypothesis 1), correspondent inference theory suggests that to an observer (reader), negative reviews would have *more dispositional value about the actor (reviewer)*, compared to the more expected positive information. Thus, we would expect that the reader's attitudes, intentions or behaviors toward the review and the reviewer would differ when encountering negative versus positive information. This is also suggested by the actor versus observer bias.

Perceptions of Actor versus Observer. The *actor-observer bias* (Jones & Nisbett, 1972), may also affect the reader's determination of whether the motivation behind a review is external or internal. It has been found that although an actor is more likely to attribute her action to situational factors, the observer is inclined to attribute the actor's behavior to the actor's personal disposition. That is, although the reviewer perceives and expresses his views as arising out of external (product) reasons, the reader may perceive the opinions to be arising due to the reviewer's personal reasons (and not objective product or consumption facts). Based on our review of the literature on hedonic versus utilitarian products and the literature on the negativity bias, we would expect that while a reader attends to and finds that a negative review gives more dispositional information about the reviewer, he or she will make different inferences about the reviewer's internal versus external motivations for writing a negative (versus a positive) review for hedonic (versus utilitarian) products. Specifically, we expect that:

H2: When the e-WOM consumer review is negative, readers will be more likely to attribute non-product related or internal motivations to the reviewer of a hedonic product than to one reviewing a utilitarian product; and

H3: These attributions about the reviewer's motives will in turn mediate the moderation effect of product type on the effect of review valence on readers' perceptions of usefulness of consumer reviews (proposed in H1)

Thus compared to the hedonic case, we expect that on encountering a negative review for a utilitarian product, consumers will more likely believe that the reviewer is knowledgeable and trustworthy, and that the reviewer's motive in writing the review was external, i.e., he or she wrote it because of their interest in accurately informing others about the product. Additionally, these attributions about the reviewers will mediate the perceptions about the e-WOM consumer reviews (Figure 1 depicts the mediated-moderation hypothesis).

Two experimental studies were designed to test the above hypotheses. The first experimental study, Study 2, tests both hypotheses 1 and 2. Study 3 addresses some of the limitations of Study 2 and serves as a test of hypothesis 3.

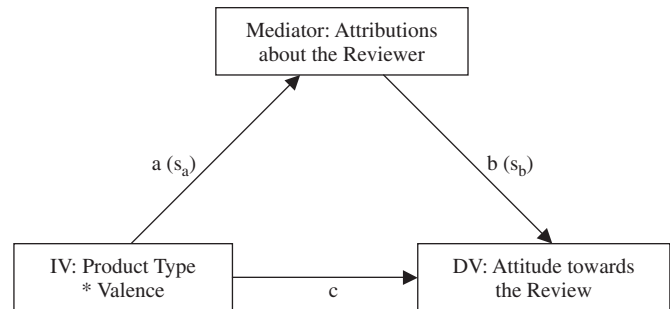


Figure 1

Hypothesis 3: Mediated Moderation Model of Effect of Valence and Product Type on Attitude toward the e-WOM Review

STUDY 2

Method

Subjects and Design. One hundred thirty-seven MBA students (mean age 29) in a northeastern and a midwestern city, voluntarily participated in a 2 (review valence: positive, negative) \times 2 (product type: utilitarian, hedonic) between-subjects experiment during class. After being randomly assigned to one of the four conditions, respondents were told that the study was about consumer reviews on the Web and assured that their responses would be anonymous.

Experimental Manipulations. The two versions of the independent variable, *Product Type*, had to reflect a utilitarian and a hedonic product. We chose books as the product category since it could be of both types—in particular, “software manual” as the utilitarian and “fiction for vacation reading” as the hedonic stimuli. The variable *Review Type* had two levels—negative and positive—and was communicated through both the language and arguments in the review text and the star rating (one star = negative review and five stars = positive review). In the utilitarian condition, subjects were asked to imagine that they needed to learn how to use certain software for making presentations and came across a consumer review of a certain reference manual for it, while searching for reviews about the manual on the Web. In the hedonic condition, they were to imagine that they were going on a vacation and were interested in finding the right fiction book to read while they were away. Exhibit 2 (a and b) show the negative reviews used for the utilitarian and hedonic product scenarios.

Exhibit 2a

Review & Instructions for the Negative Utilitarian Condition (Study 2)

IMAGINE THAT YOU NEED TO LEARN HOW TO USE THE PRESENTATION PROGRAM, SLIDESHOW 4.0, AND THAT YOU ARE SEARCHING THE WEB FOR REVIEWS ON THE USER GUIDE, *SLIDESHOW 4.0 CLASSROOM IN A BOOK* BY BILL LARSON THAT YOU ARE THINKING OF BUYING. AMONG THE READERS' REVIEWS ABOUT IT ON THE WEB, YOU COME ACROSS THE FOLLOWING REVIEW:

SlideShow 4.0: Classroom in a Book -- by Bill Larson (Author)

Overall Rating: ★☆☆☆☆ (1 star)

Larson does not take you through the major functions of SlideShow 4.0 with instructional overviews and hands-on exercises. It is a problem that there are no screen captures with examples of what you should be doing to achieve the end result. The book should have included a CD with examples of full presentations. The language of the book is the typical dry stuff one finds in computer manuals!

Exhibit 2b

Review & Instructions for the Negative Hedonic Condition

IMAGINE THAT YOU ARE GOING ON A VACATION AND THAT YOU ARE SEARCHING THE WEB FOR REVIEWS ON A BOOK, *PURPLE SKIES* BY BILL LARSON, THAT YOU ARE THINKING OF BUYING TO READ ON YOUR VACATION. YOU COME ACROSS THE FOLLOWING REVIEW FOR IT ON THE WEB:

Purple Skies -- by Bill Larson (Author)

Overall Rating: ★☆☆☆☆ (1 star)

Larson's writing is unimaginative and boring! He is not a keen observer and doesn't say anything specific. I did not like it that I could not relate to the various characters in the book, and got through the book with great difficulty. *Purple Skies* compares very poorly with other fiction that I've read, and I do not recommend it at all!

Dependent Variables. Subjects responded to eight 7-point semantic differential scales related to their attributions about the reviewer's motives in posting the review as well as their intention to use such a review were they to come across it in real decision scenario. Attributions relating to readers' accuracy perceptions of the reviews, which may be interpreted as reflecting readers' attributions about external (or product-related) motivations on the part of the reviewer, were measured using three items: (1) To what extent do you think that the above review may

accurately reflect how good the book is?; (2) The motive behind the reviewer posting the review on the Web site was to accurately inform other buyers about the quality of the book; and (3) I feel the reviewer's comments are based on their true experience/feelings. These items loaded on a single factor capturing 21.0% of the overall variance for the dependent variables (coefficient $\alpha = 0.72$). Attributions regarding internal (or the reviewer's personal) motivations was measured by a single item: To what extent do you feel other reasons—reasons having nothing to do with the

quality of the book reviewed—influenced the reviewer's opinions. We expected one additional item (The motive behind the reviewer posting the review was just to feel good about having their own opinions featured on the Web site) to load on the same factor, but it did not, and was subsequently dropped. Instead, our single-item measure (11.6% of overall variance) captured readers' attribution that "other reasons," reasons other than the product quality, influenced the reviewer to post the review.³ Review usefulness was measured by two items: (1) In real life, if you came across this review while searching for information on this book, how likely would you be to read it? and (2) Assuming that you were thinking of buying this book in real life, how likely would you be to use this review in your decision-making? This factor captured 15.5% of the overall variance (coefficient $\alpha = 0.71$). The eighth item (I feel the reviewer's comments are based on their true experience/feelings) did not load on any of the three factors and was subsequently dropped from the analysis. With the six remaining variables, we created three composite variables *Attribution_1*, *Attribution_2* and *Review_Usefulness* by averaging the variables with the high loadings in each factor respectively, to test our hypotheses.

Data Analysis. We tested Hypothesis 1 using *Review_Usefulness*, and Hypothesis 2 using *Attribution_1* and *Attribution_2*. These hypotheses were tested using univariate ANOVA and one or both of the planned contrasts of the means of the composite variables: (A) whether the utilitarian-negative mean was greater than the hedonic-negative one, and (B) whether the utilitarian-negative mean was greater than the utilitarian-positive one, at a significance level of $p < .05$. Table 4 shows the composite variable descriptives.

Manipulation Checks. As manipulation checks, we asked subjects to rate whether they thought that the book would be read for business (i.e., utilitarian) or pleasure (i.e., hedonic), and how satisfied the reviewer was with the book (i.e., negative versus positive review). In order to ensure that our reviews were credible, we also asked subjects to rate how likely was it that such a review may appear on the Web.

³This question replicated the attribution question used in Mizerski, Richard W. (1982).

Results

Manipulation Checks. Because of missing data, 132 out of 137 subjects were included in the analysis. The manipulation checks showed that the manipulation of review valence was effective. An ANOVA of responses to the question "How satisfied is the reader with the book" revealed a significant main effect (mean for negative condition = 2.49 and positive = 5.11, $F(1,130) = 105.2, p < .001$).⁴ Similarly, an ANOVA of responses to the question asking whether subjects thought that the book reviewed was meant to be read primarily for *work* (the left-hand side of the 7-point scale) or *pleasure* (the right-hand side), showed that the manipulation of *product type* was successful (mean for utilitarian condition = 3.07 and hedonic = 5.27, $F(1,124) = 58.36, p < .001$). Subjects also strongly felt that the review they read could appear on the Web, because the mean of their responses to this question was 6.02 out of 7, with a standard deviation of 1.13.

Hypothesis 1. Hypothesis 1 predicted that consumers are likely to consider negative reviews for utilitarian products more useful than those for hedonic products. The overall interaction between product type and review valence was not significant for the composite variable *Review_Usefulness* ($F(1,128) = 1.50, p = .22$). However, the planned contrast (A) was highly significant ($F(1,127) = 11.59, p < .001$) and revealed that the negative review for utilitarian product (mean = 5.17) was more useful than the negative review for the hedonic product (mean = 3.94), supporting hypothesis 1. Additional directional support is provided by the contrast comparing the usefulness of the negative review for the utilitarian product (mean = 5.17) with that of the positive review for the same product (mean = 4.73) ($F(1,128) = 1.34, p = .25$) depicting a higher usefulness for the negative than the positive review (see Table 4 for all means and standard deviations).

Hypothesis 2. Hypothesis 2 predicted that when a review is negative, readers will be more likely to

⁴Additionally, the means of the Hedonic-Negative and Utilitarian-Negative conditions were significantly different at 2.06 and 2.94, respectively. These should have been more equivalent in their valence, because if the subjects perceived the hedonic review as "extremely negative," they were more likely to discount it because of its being "dispositional" or easy to attribute to the source. This was pointed out by a reviewer and was corrected in Study 3.

TABLE 4

Study 2: Means and Standard Deviations for Dependent Measures

REVIEW CONDITIONS	REVIEW_USEFULNESS		ATTRIBUTION_1		ATTRIBUTION_2	
	MEAN	SD	MEAN	SD	MEAN	SD
Utilitarian-Negative	5.17	1.27	4.74	1.03	4.04	1.30
Utilitarian-Positive	4.73	1.47	4.10	1.01	3.59	0.91
Hedonic-Negative	3.94	1.38	3.61	1.12	3.70	1.07
Hedonic-Positive	4.14	1.83	3.99	1.16	3.71	1.43

attribute internal or non-product-related motivations to the reviewer of a hedonic product, and external or product-related motivations to a utilitarian product reviewer. We tested this hypothesis using univariate ANOVA to analyze the external attributions measured by *Attribution_1* and the internal attributions by *Attribution_2*. Consistent with H2, we found that the overall interaction between *valence and product type* was highly significant for *Attribution_1* ($F(1,127) = 7.08, p < .01$). The planned contrast (A) of the means for the negative condition showed that readers attributed the negative reviewers of hedonic products with a significantly lower level of external or product related motivations than their utilitarian product counterparts (means for hedonic-negative scenario = 3.61 versus utilitarian-negative = 4.74) with ($F(1,127) = 18.46, p < .001$); providing strong support for H2. Additionally, planned contrast (B) also strongly supported a negativity effect for utilitarian products, viz. the external or product related attributions were higher for negative reviews (mean = 4.74) than positive (mean = 4.10) ($F(1,127) = 5.15, p < .05$).

However, for *Attribution_2*, neither the overall review valence-product type interaction ($F(1,127) = 0.34, p = .56$), nor the contrasts [utilitarian-negative mean = 4.04 and hedonic-negative mean = 3.7; ($F(1,127) = 1.40, p = .24$); utilitarian-positive = 3.59 and utilitarian-negative mean = 4.04; ($F(1,127) = 2.11, p = .15$)] were significant, although both sets of means were directionally consistent.⁵

⁵A lack of power in this test (.19 in case of the overall interaction) may have been a contributing factor as to why this variable was not significant in supporting H2.

Reviewing these results, we note that *Attribution_1* captured a larger extent of the overall variance in readers' attributions (it explained 21% compared to 11.6% by *Attribution_2*). Therefore, overall, we suggest that there is support for H2 and that the readers were more likely to attribute external or product-related motivations when reviewers wrote negative reviews about utilitarian products, and internal or non-product-related motivations when reviewers wrote negative reviews for hedonic products.

Limitations. Although both the utilitarian and hedonic negative reviews featured the lowest rating of one star for the product reviewed, the negative hedonic product review turned out to be significantly more negative than its utilitarian counterpart ($p < .01$). This appeared to be due to differences in the text of the review. It is unavoidable to have different texts in the utilitarian and the hedonic review, and despite pretests, our negative hedonic review appeared more negative overall to our study subjects. Since this was a potential confound of our results (as one of our reviewers pointed out that extremely negative reviews may be perceived as more "dispositional" or easy to attribute to the source, i.e., internally motivated than their less negative counterparts, as well as more easy to discount), we conducted another study. This third study also offered the opportunity to make further design improvements and also test H3.

STUDY 3

Study 3 was designed to eliminate any alternative explanations for the results in Study 2 while also testing our mediation hypothesis (Hypothesis 3).

Method

Subjects and Design. One hundred twenty MBA students (80% fell in the 25- to 34-year-old category) in a northeastern city, voluntarily participated in the new experiment, which again had a 2 (review valence: positive, negative) \times 2 (product type: utilitarian, hedonic) between-subjects design, with similar instructions to the subjects to treat the stimuli as they would while reading a consumer review on the Web.

Experimental Manipulations. A “foreign language audio course on CD” served as the utilitarian product and a “music CD” served as the hedonic product stimuli. Review valence (positive/negative) was communicated through both the review text and the star rating, in which one star indicated a negative review and five stars indicated a positive review. We took special care during pretest to develop our stimuli to ensure equivalence in the valence extremities of corresponding reviews (i.e., the degrees of negativity in the hedonic and utilitarian reviews were matching and not significantly different, as also the positive reviews). The data supports this equivalence, as the two negative condition means are 1.43 for the utilitarian and 1.60 for the hedonic condition, and this difference is not significant ($p = .574$). Moreover, the utilitarian mean is lower in magnitude than the hedonic mean, which is directionally opposite of that in Study 2, where the lower hedonic mean could have been a potential confound because the greater negativity could be seen as dispositional of the reviewer. Therefore, this study improves on Study 2 in removing this confound.

Procedure. In the utilitarian condition, subjects were asked to imagine that they were looking to buy an audio CD language course, because, as a part of their new job, they have to interact with speakers of Mandarin Chinese and they need to get some basic knowledge of the language. In the hedonic scenario, subjects imagined that they were going on a vacation with friends during the summer and want to buy a music CD to listen to when they will be on their own. In both the cases, they were instructed that they have created a shortlist⁶ of a few choices, and they were looking to read other consumers’ reviews on these to

help them make a final choice. Our directions to subjects in the questionnaire clearly indicated that several product options (besides the one being discussed in the review) were available to the readers, so that they did not feel that they had no alternatives beyond the one they were reading about. Although this ensures better internal validity, we note here that there seem to be many more choices available for hedonic products in the real world than there are for utilitarian products (reflecting perhaps the more heterogeneous preferences in the case of hedonic products).

Dependent Measures. Our study was designed to have three dependent measures: (i) Attitude toward the Review, (ii) the Attributions about the Reviewer, and (iii) Attitude toward the Product.⁷ *Attitude toward the Review* was based on three 9-point semantic differential-scaled items (coefficient $\alpha = 0.85$) describing the stimulus review [(a) Very useful/Not at all useful, (b) Very accurate/Not at all accurate and (c) Very informative/Not informative at all], and a response to the question, “Assuming that you were thinking of buying this product, how likely would you be to use the above consumer review in your decision-making?” (*Very likely/Very unlikely to use in making purchase-decision*). *Attributions about the Reviewer* score was based on three 9-point semantic differential-scaled items (coefficient $\alpha = 0.87$) describing opinions about the consumer who wrote the review (Very/Not at all (a) knowledgeable (b) trustworthy, and (c) helpful) and responses to two statements “The motive behind the consumer posting the review on the Web site was to accurately inform other buyers about how good the product was” and “I trust that the above review is based on the consumer’s true experience/feelings” (*completely agree/completely disagree*). *Attitude toward the Product* score was based on two 9-point semantic differential-scaled items (correlation = 0.90) of the product reviewed ((a) Very good/Very bad (b) Very desirable/Not at all desirable).

Results

Manipulation Checks. As a manipulation check for product type, subjects responded to the statement: “In the above scenario, you are looking to buy the

⁶ This design ensures that the subjects do not feel that the number of options available are different for the two product categories.

⁷ As explained earlier, we measured this though this was not directly related to our hypotheses.

product to use it”: using a 9-point semantically differential scale (Primarily for Work/Fun). An analysis of variance revealed a highly significant main effect ($F(1, 119) = 186.32, p < 0.01$), indicating that subjects believed that in the utilitarian product condition they were looking to buy the product primarily for work ($M = 2.61$) and in the hedonic condition, primarily for fun ($M = 7.62$). As a manipulation check for review type, subjects responded to the question: “In your opinion how satisfied is the consumer with the product?” (Very Satisfied/Dissatisfied). Again, ANOVA revealed a highly significant main effect ($F(1, 119) = 994.5, p < .01$), indicating that subjects believed that the reviewer was more satisfied in the positive condition ($M = 8.07$) than in the negative condition ($M = 1.52$).

Data Analysis. A multivariate analysis of variance (MANOVA) was conducted on the three composite dependent measures (Attitude toward the Review, the Attributions about the Reviewer, and Attitude about the Product). The MANOVA revealed a significant interaction between product type and review valence (Wilks’ Lambda test had $p < .012$). More specifically, the results indicate significant interactions for both Attitude toward the Review ($p < .022$) and Attitude about the Product ($p < .057$), but not for Attributions about the Reviewer ($p < .078$). Because the last DV is expected to mediate the relationship between the interaction of product type and review valence with Attitude toward the Review (as per our H3), we do not expect it to be significant here. Therefore, univariate ANOVAs were conducted for the first two dependent measures (see Table 5 for the descriptive statistics), and a mediation analysis was conducted using the third measure. For the first two measures, we also examined one or both of the planned contrasts of the means: (A) whether the utilitarian-negative mean was greater than the hedonic-negative one, and (B) whether the utilitarian-negative mean was greater than the utilitarian-positive one, at a significance level of $p < .05$.

Attitude Toward the Review. An ANOVA of subjects’ ratings on the Attitude toward the Review scale revealed a significant interaction between product type and review valence ($F(1, 116) = 5.41, p < .05$) indicating support for hypothesis 1. Planned contrast A was highly significant ($F(1, 116) = 16.17, p < .001$),

and the measure of readers’ average attitude toward the utilitarian negative review was much higher at 6.43, compared to 4.83 for the hedonic negative review. Although planned contrast Bs means were in the direction expected (utilitarian-negative mean = 6.43 versus utilitarian-positive mean = 5.93), this was not significant.⁸

Attitude about the Product. Although not a part of our hypotheses, we report the results of the ANOVA of subjects’ ratings on the Attitude about the Product scale. The results reveal a significant interaction between product type and review valence ($F(1, 115) = 3.70, p < .057$) indicating that the attitude toward the product was influenced by the valence of the review which was moderated by the product type. Although the difference between the means in contrast A (utilitarian-negative = 3.43 versus hedonic-negative = 4.23) was marginally significant ($F(1, 116) = 3.59, p = .06$); that for contrast B (utilitarian-negative = 3.43 versus utilitarian-positive = 5.80) was highly significant, ($F(1, 116) = 31.42, p < .001$).⁹

Attributions about the Reviewer. In H3, we had proposed that the moderation results would be mediated by the reader’s attributions about the reviewer, measured by the composite scale Attributions about the Reviewer (Figure 4). For showing mediation, we need these three results (Baron & Kenny, 1986): (1) “Path c” to be significant, i.e. a significant moderation effect of product type \times review valence (the independent

^{8,10} On the advice of one of our reviewers, we repeated this analysis using the average perception of negativity/positivity of the reviews as a covariate because there was some (nonsignificant) difference in this between the utilitarian versus hedonic products. These findings remained unchanged.

⁹ Contrast B also indicates that for both hedonic products (means for hedonic-positive = 5.45 and hedonic-negative = 4.23, $F(1, 115) = 8.30, p > .005$) and for utilitarian products (see earlier), the attitude about the product in the case of positive reviews was greater than that for the negative reviews—providing a manipulation check for our stimuli, inasmuch as it mimics what we expect in the real world, viz. that the attitude towards the review will directly influence the attitude about the product. Also, although for positive reviews there was no significant difference between the ratings ($F(1, 115) = .69, p = .41$), for negative reviews, the hedonic products rated marginally higher than their utilitarian counterparts ($F(1, 115) = 3.59, p = .06$). Because there were no significant differences in the extremities of the reviews, this result may be interpreted as showing that the negative reviews hurt the attitude about the product more in the case of utilitarian compared to hedonic products.

TABLE 5

Study 3: Means and Standard Deviations for Dependent Measures

REVIEW CONDITIONS	ATTITUDE TOWARD REVIEW		ATTRIBUTIONS ABOUT REVIEWER		ATTITUDE ABOUT PRODUCT	
	MEAN	SD	MEAN	SD	MEAN	SD
Utilitarian-Negative	6.43	1.27	6.12	1.45	3.43	1.62
Utilitarian-Positive	5.93	1.64	5.49	2.00	5.80	1.63
Hedonic-Negative	4.83	1.85	5.10	1.75	4.23	1.60
Hedonic-Positive	5.64	1.32	5.57	1.47	5.45	1.69

variable or IV) on Attitude toward the Review (the dependent variable or DV). The regression model was significant (R-sq. = 0.13, $p < .001$) as was the interaction ($B = 1.308, t = 2.33, p < .02$); (2) a significant “path a ” that is, a significant effect of product type x review valence interaction (IV) on the mediator, Attributions about the Reviewer. The regression model was not significant (R-sq. = 0.05, $p < .14$) and neither was the interaction ($B = 1.093, t = 1.78, p < .078$); and (3) a smaller or null effect of the IV (product type x review valence interaction) on the DV (Attitude toward the Review) when the Mediator (Attributions about the Reviewer) is included in the model. This was indeed so for our data. The p value of the IV went from being significant at 0.02 to nonsignificant at 0.144, whereas the mediator (Attributions about the Reviewer) was highly significant ($B = .712, t = 13.25, p < .001$). Additionally, we conducted the Sobel test (Sobel, 1982) to check the significance of the indirect path ab because of the lack of significance in Step 2; and the Sobel test results were significant ($z = 1.94, p < .05$). Thus, our analysis finds strong support for mediated moderation in H3.¹⁰

GENERAL DISCUSSION

Consumer product reviews on the Web and, in general, e-WOM as an information source poses some particular issues for consumers. One of these is that such WOM is typically received from someone with whom readers have the weakest of ties. To what degree, then, do

readers trust these reviews and use these in their decision making? In this study, we investigate the negativity bias in consumer decision making, and ask whether consumers exhibit a similar bias online as offline. Taken together, the results of our observational study and the controlled experiments support the existence of a negativity bias for utilitarian products. However, no such bias appears to exist for hedonic products in either the observational or the experimental studies. Rather, we found support for a positivity bias. In naturalistic settings, a negativity bias involves, first, paying more attention to negative than to positive information (as a result of negative information being more salient) and, second, trusting the negative information more than the positive information (as a result of its being found more relevant or diagnostic) during processing (Ahluwalia, 2000). The data in our observation study provides supportive evidence for the first step, that readers seem to engage more with negative than positive reviews in the case of hedonic products, because, overall, 267 people had voted whether they found the negative review helpful versus 168 in the positive case (please see Table 2). However, despite this evidence, the second step about the decision to find the negative information more helpful than the positive one (viz. exhibit a negativity bias) was not exhibited; and readers of hedonic product reviews were more likely to discount than value negative reviews (responses of “helpful” versus “not helpful” was 28% versus 72% in our observational study). This greater skepticism on the part of a real-world consumer while evaluating hedonic product reviews may be because they have a stronger “prior” or expectation about the hedonic compared to the utilitarian

¹⁰ See footnote 8.

product, and therefore are more likely to engage in consistency biases and effectively counterargue the information or discount it, instead of being influenced by it (Ahluwalia, 2000). Interestingly, although this may explain the lack of a negativity effect in our observational study, having priors does not explain why we did not find a negativity bias in our experimental studies with hypothetical products. And, in fact, Ahluwalia (2002) argues that the likelihood of finding a negativity effect is greater in laboratory settings than in the real world, as in laboratory settings, the consumers' accuracy motivations are not overridden by their defense or impression motivations.¹¹ Thus, the absence of a negativity effect in hedonic product reviews is indeed worthy of attention and investigation.

Subsequently, we proposed that readers' attributions mediate this moderation effect of product type on the effect of review valence on readers' trust of consumer reviews. The results of Study 2 suggest that consumers are more likely to infer that the reviewer's negative comments about a utilitarian product (as compared to a hedonic one) were motivated by a desire to accurately inform other buyers about the product, and believe that these comments were more likely to be based on the reviewer's true experiences/feelings (*viz.* external or product-related motivations). Conversely, in case of negative hedonic reviews, it appears that consumers may be more likely to feel that reasons unrelated to the product's quality influenced the reviewer, and they were guided by internal or personal reasons. Study 3 supported our hypothesis that readers' attributions about the reviewers' motives mediate the interaction between product type and review valence in determining the usefulness of consumer reviews to them. Thus, we found that the negative attributions about the reviewers' motivations drive the lack of trust in the negative reviews, and thus the absence of a negativity effect for hedonic product reviews.

¹¹ The author states that this is because in the real-world customers may be familiar with the products they are evaluating (whereas in the laboratory they evaluate hypothetical brands), and when exposed to positive information about a familiar brand (than an unfamiliar one), subjects are likely to (a) generate more support arguments, (b) perceive it to be more diagnostic, and (c) give it more weight.

These difference in attributions are consistent with and also extend previous findings regarding hedonic versus utilitarian products. It is believed that hedonic consumption is tied to consumers' imaginative constructions of reality, and that it may be based on not what they know to be real but, rather, on what they desire reality to be (Singer, 1966). Our research explores the differences in the evaluation of negative reviews for hedonic and utilitarian products in the new domain of e-WOM, and our findings are consistent with this distinction. Similarly, it is also likely that when consumers search for consumer reviews for a hedonic product, they are looking forward to an affective and sensory experience of aesthetic or sensual pleasure, fantasy, and fun as posited by Hirschman and Holbrook (1982). Thus they may already be positively disposed toward the object of their consumption or desire and be looking forward to consuming it, and therefore be more motivated to evaluate the product positively (Kunda, 1990). Although in general consumers' attitudes toward most brands tend to be moderately positive (Mizerski, 1982) and also they typically will search for information only about brands that they like (Ahluwalia, 2002), we believe that in the case of hedonic products this positive pre-disposition may be more pronounced, and this may lead to the outweighing of the negativity effect. In addition, consumers may engage in affect confirmation only while evaluating hedonic attributes (Adaval, 2001), in that subjects give greater weight to the attribute information when it is evaluatively consistent with their mood (more likely positive than negative) than when it is inconsistent. Adaval (2001) had found that this differential weighting does not take place when participants judge utilitarian criteria. The above is also consistent with the finding by Ahluwalia (2000), that when faced with negative dissonant information, a committed individual can, and is more likely to reduce the effect of this negative information more easily, where it is easy to refute. The hedonic-utilitarian distinctions that we have detailed earlier, as well as the support for there being a greater variability in the consumer's decision criteria for hedonic attributes in the literature (Moskowitz & Bernstein, 2000; Pangborn, 1981; among others), indicates that the consumer looking for a hedonic product will be more committed and more able to refute negative information, than one looking for a utilitarian product.

Additionally, in the observational study we found evidence for a positivity bias in that readers found positive reviews more “useful” than “not useful” for both utilitarian and hedonic products. As per the findings in Ahluwalia (2002), this may have been because the subjects had a degree of familiarity with the real-life brands whose reviews they were evaluating, and that even a weak-positive attitude toward these brands would imply that they would give more weight to the attitude consistent positive information, particularly under conditions of moderate involvement.¹² Under high involvement conditions, a negativity effect would be observed only if respondents were “outcome” involved in their processing goal, whereas a positivity effect would be observed when they were “position” or “impression” involved (Ahluwalia, 2002).

Finally, our experimental study subjects also reported that they were more likely to consider using consumer reviews for utilitarian products (than hedonic products) in their decision-making, implying that overall consumer reviews would be more persuasive for utilitarian products. This also was consistent with our observational study data where there were 535 respondents for the 50 utilitarian product reviews that we studied in our sample, whereas for the same number of hedonic product reviews the number of readers responding was only 435. Although this is consistent with the distinctions between utilitarian and hedonic product consumption that we have detailed here, we have not investigated this preference for e-WOM consumer reviews for utilitarian products here and this is an area for our future research.

Overall, the validity and generalizability of our findings has been enhanced through our use of observational and multiple experimental studies with a wide range of product categories. The external validity of our results is also enhanced by the fact that our experimental task reflected the actual process readers are likely to use while responding to a consumer review on the Web—viz. reading the review and thinking

about whether to trust the reviewer and hence the review, and subsequently forming an attitude about the product. A limitation in our experimental stimuli perhaps was that we manipulated the hedonic versus utilitarian products by using two different products, though in the same product category (i.e., fiction versus software manual books, or music versus language course CDs). A stronger manipulation of hedonic versus utilitarian conditions may be to manipulate the separate goals outside of the product, by having people look at the review for a specific product but suggesting that the goal for purchasing the product differs across conditions. However we believe that perhaps the difference we find between the utilitarian versus the hedonic cases in naturalistic settings is because there are inherent differences in the characteristics of attributes of hedonic versus utilitarian products (e.g., more variability in preferences versus less) which cause differences in their processing (for example in our case, the existence of the negativity effect versus not). Literature points to differences in consumer judgment and choice processes for products based on whether they were superior on hedonic dimensions or on utilitarian dimensions (Dhar & Wertenbroch, 2000). Thus we believe that manipulating hedonic and utilitarian products through the use of different products in the same product category should be accurate.

Our findings should have potentially significant contributions for researchers and marketers alike. The easy and abundant availability of e-WOM in the form of consumer reviews on the Web makes it an information source that consumers access readily and frequently. However, the fact that the product’s characteristics and the reader’s goals for its use (hedonic versus utilitarian) affect how trustworthy and useful the readers perceive the review to be has implications for consumer researchers studying factors determining trust on the Web, so also for marketers concerned about the effect of consumer reviews on the attitude toward their products, and sales. Within the parameters of our study, the results suggest that marketers of hedonic products need not be as concerned about negative reviews for their products as marketers of utilitarian products should be. Marketers and consumer behavior researchers may also be interested in investigating this distinction between the trust toward hedonic versus utilitarian product reviews in general. Additionally, for researchers, this study shows that *product*

¹² Recently, Posavac et al. (2004) showed that singular evaluations of products are often characterized by a brand positivity effect in which a focal brand that is the subject of singular evaluation is judged to be more favorable than warranted. Thus, this positivity bias may drive readers to give comparatively more weight to positive information.

type is yet another factor that moderates the occurrence of the negativity effect (which recent research has shown is not as ubiquitous as it was believed to be).

REFERENCES

- Adaval R. (2001). Sometimes IT Just Feels Right: The Differential Weighting of Affect-Consistent and Affect-Inconsistent Product Information. *Journal of Consumer Research*, 28, 1–17.
- Ahluwalia, R. (2000). Examination of Psychological Processes Underlying Resistance to Persuasion. *Journal of Consumer Research*, 27, 217–232.
- Ahluwalia, R. (2002). How Prevalent is the Negativity Effect in Consumer Environments? *Journal of Consumer Research*, 29, 270–279.
- Ahluwalia, R., & Shiv, B. (1997). The Effects of Negative Information in the Political and Marketing Arenas: Exceptions to the Negativity Effect. *Advances in Consumer Research*, 24, 222.
- Baron, R. M., & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Bart, Y., Shankar, V., Sultan, F., & Urban, G. (2005). Are the Drivers and Role of Online Trust the Same for All Web Sites and Consumers? A Large Scale Exploratory and Empirical Study. *Journal of Marketing*, 69, 133–152.
- Batra, R., & Ahtola, O. T. (1990). Measuring the Hedonic and Utilitarian Sources of Consumer Attitudes. *Marketing Letters*, 2, 159–170.
- Bickart, B., & Schindler, R. (2001). Internet Forums as Influential Sources of Consumer Information. *Journal of Interactive Marketing*, 15, 31–40.
- Chatterjee, P. (2001). Online Reviews: Do Consumers Use Them? *Advances in Consumer Research*, 28, 129–133.
- Chen, Y. B., Fay, S., & Wang, Q. (2002). Online Consumer Product Reviews: What Can We Learn. Working Paper, June 2002, University of Florida.
- Curren, M. T. (1987). Attributional Influences on Consumers' Desires to Communicate About Products. *Psychology and Marketing*, 4, 31–45.
- Curren, M. T., & Folkes, V. S. (1987). Attributional Influences on Consumers' Desires to Communicate About Products. *Psychology & Marketing*, 4, 31–45.
- Dhar, R., & Wertebroch, K. (2000). Consumer Choice Between Hedonic and Utilitarian Goods. *Journal of Marketing Research*, 37, 60–71.
- Dholakia, R. R., & Sternthal, B. (1977). Highly Credible Sources: Persuasive Facilitators or Persuasive Liabilities. *Journal of Consumer Research*, 3, 223–232.
- Drolet, A., Simonson, I., & Tversky, A. (2000). Indifference Curves That Travel with the Choice Set. *Marketing Letters*, 11, 199–209.
- Eagly, A. H., Wood, W., & Chaiken, S. (1978). Causal Inferences About Communicators and Their Effect on Opinion Change. *Journal of Personality and Social Psychology*, 36, 424–435.
- Feldman, S. (1966). Motivational Aspects of Attitudinal Elements and Their Place in Cognitive Interaction. In S. Feldman (Ed.), *Cognitive Consistency*, New York: Academic Press.
- Folkes, V. S. (1988). The Availability Heuristic and Perceived Risk. *Journal of Consumer Research*, 15, 13–23.
- Godes, D., & Mayzlin, D. (2004). Using Online Conversations to Study Word-of-Mouth Communication. *Marketing Science*, 23, 545–560.
- Heider, F. (1958). *The Psychology of Interpersonal Relations*, New York: John Wiley & Son.
- Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic Word-of-Mouth Via Consumer-Opinion Platforms: What Motivates Consumers to Articulate Themselves on the Internet? *Journal of Interactive Marketing*, 18, 38–52.
- Henricks, M. (1998). When Your Customers Talk . . . People Listen. So Why Aren't More Business Owners Using the Cheapest and Easiest Form of Advertising? *Entrepreneur*, February. URL: <http://www.Entrepreneur.com/article/0,4621,228051,00.html>.
- Herr, P. M., Kardes, F. R., & Kim, J. (1991). The Effects of Word-of-Mouth and Product-Attribute Information on Persuasion: An Accessibility-Diagnosticity Perspective. *Journal of Consumer Research*, 17, 454–462.
- Hirschman, E. C., & Holbrook, M. B. (1982). Hedonic Consumption: Emerging Concepts, Methods, and Propositions. *Journal of Marketing*, 46, 92–101.
- Hunt, J. M., Domzal, T. J., & Kernan, J. B. (1981). Casual Attributions and Persuasion: The Case of Disconfirmed Expectancies. *Advances in Consumer Research*, 9, 287–292.
- Hutton, J. G., & Mulhern, F. J. (2002). *Marketing Communications: Integrated Theory, Strategy and Tactics*. Hackensack, NJ: Pentagram Publishing.
- Jones, E. E., & Davis, K. E. (1965). From Acts to Dispositions. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 2), New York: Academic Press.
- Jones, E. E., & Nisbett, R. E. (1972). The Actor and the Observer: Divergent Perceptions of the Causes of Behavior. E. E. Jones et al. (Eds.), *Attribution: Perceiving the Causes of Behavior*. Morristown, NJ: General Learning Press.
- Kamins, M. A., & Assael, H. (1987). Moderating Disconfirmation of Expectations Through the Use of Two-Sided Appeals: A Longitudinal Approach. *Journal of Economic Psychology*, 8, 237–253.
- Kanouse, D. E., & Hanson, L. R. (1972). Negativity in Evaluations. In E. E. Jones et al. (Eds.), *Attribution: Perceiving the Causes of Behavior*. Morristown, NJ: General Learning Press.

- Katz, E., & Lazarsfeld, P. F. (1957). *Personal Influence*. Glencoe, IL: Free Press.
- Keller, K. L., & Staelin, R. (1987). Effects of Quality and Quantity of Information on Decision Effectiveness. *Journal of Consumer Research*, 14, 200–213.
- Kelley, H. H. (1967). Attribution Theory in Social Psychology. In D. Levine (Ed.), *Nebraska Symposium on Motivation* (Vol. 15). Lincoln: University of Nebraska Press.
- Kelley, H. H. (1973). The Process of Causal Attribution. *American Psychologist*, 28, 107–128.
- Kunda, Z. (1990). The Case for Motivated Reasoning. *Psychological Bulletin*, 108, 480–498.
- Malhotra, N. K. (1982). Information Load and Consumer Decision Making. *Journal of Consumer Research*, 8, 419–430.
- Mayzlin, D. (2003). Promotional Chat on the Internet, Working Paper, Yale School of Management, New Haven, CT.
- Mayzlin, D. (2006). Promotional Chat on the Internet. *Marketing Science*, 25, 155–164.
- Mizerski, R. W. (1982). An Attribution Explanation of the Disproportionate Influence of Unfavorable Information. *Journal of Consumer Research*, 9, 301–310.
- Mort, G. S., & Rose, T. (2004). The Effect of Product Type on Value Linkages in the Means-End Chain: Implications for Theory and Method. *Journal of Consumer Behaviour*, 3, 221–234.
- Moskowitz, H. R., & Bernstein, R. (2000). Variability in Hedonics: Indications of Worldwide Sensory & Cognitive Preference Segmentation. *Journal of Sensory Studies*, 15, 263–284.
- Pangborn, R. M. (1981). Individuality in Responses to Sensory Stimuli. In J. Solms & R. L. Hall (Eds.), *Criteria of Food Acceptance: How Man Chooses What He Eats* (pp. 177–219). Zurich: Forster Verlag.
- Payne, J. W., Bettman, J. R., & Johnson, E. J. (1988). Adaptive Strategy Selection in Decision Making. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 14, 534–552.
- Pham, M. T. (1998). Representativeness, Relevance, and the Use of Feelings in Decision Making. *Journal of Consumer Research*, 25, 144–160.
- Silverman, G. (1997). How to Harness the Awesome Power of Word of Mouth. *Direct Marketing*, November, 32–37.
- Skowronski, J. J., & Carlston, D. E. (1987). Social Judgment and Social Memory: The Role of Cue Diagnosticity in Negativity, Positivity, and Extremity Biases. *Journal of Personality and Social Psychology*, 52, 689.
- Sobel, M. E. (1982). Asymptotic Intervals for Indirect Effects in Structural Equations Models. In S. Leinhardt (Ed.), *Sociological Methodology*, (pp. 290–312). San Francisco: Jossey-Bass.
- Strahilevitz, M., & Meyers, J. G. (1998). Donations to Charity as Purchase Incentives: How Well They Work May Depend on What You Are Trying to Sell. *Journal of Consumer Research*, 24, 434–446.
- Tedeschi, B. (1999). Consumer Products Are Being Reviewed on More Web Sites, Some Featuring Comments From Anyone With An Opinion. *New York Times*, E-Commerce Report; October 25.
- Thompson, N. (2003). More Companies Pay Heed to Their “Word of Mouse” Reputation. *New York Times*, Business/Financial Desk, June 23.
- Ward, J., & Ostrom, A. (2002). Motives for Posting Negative Word of Mouth Communications on the Internet. In B. Bickart & R. Schindler (Eds.), *Expanding the Scope of WOM: Consumer-to-Consumer Information on the Internet. Special Session Summary* (pp. 428–430) *Advances in Consumer Research*, 29.
- Weinberger, M. C., & Dillon, W. R. (1980). The Effects of Unfavorable Product Information. In J. C. Olson, (Ed.), *Advances in Consumer Research*, Vol. 7. (pp. 528–532), Ann Arbor, MI: Association for Consumer Research.
- Whyte, W. H. Jr. (1954). The Web of Word of Mouth. *Fortune*, 50, 140–143.
- Yang, Z., & Peterson, R. T. (2003). I Read About It Online . . .” *Marketing Research*, 15.
- Zajonc, R. B. (1968). Attitudinal Effects of Mere Exposure. *Journal of Personality and Social Psychology*, 7: Monograph, 1–29.