

Changing Your Mind About Seeing a Brand That You Never Saw: Implications for Brand Attitudes

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ABSTRACT

Two field experiments examine the attitudinal consequences of consumers changing their minds about previously seeing brands when in fact they have not. In the first study, an increase in false brand awareness, holding brand exposure constant, is found to result in more favorable brand attitudes. In the second study, changes in false brand awareness were found to mediate the development of defensive thoughts in which respondents self-justify changing their minds. Defensive thoughts, in turn, mediate the development of brand attitudes. The results suggest that simple changes in one's subjective probability of previously seeing a brand independent of actual exposure can have significant attitudinal consequences for that brand. This is due to the generation of self-justifying cognitions. Individual change scores are further found to have greater theoretical and empirical utility than static measures. © 2011 Wiley Periodicals, Inc.

To uncover what consumers believe or how they feel about brands, marketing researchers often ask them questions. One potential concern is that the answers may not be based on actual brand knowledge or experience. Problems with uninformed consumers reporting information about brands they know little or nothing about are well documented. In surveys, consumers have been found to be quite willing to report an awareness of, and opinions about, products and brands that are actually fictitious (e.g., Peterson & Kerin, 1981; Goldsmith, 1986; Graeff,

2002, 2003), which can lead to questionable inferences made on the basis of that data. What has not been examined, however, is whether false brand reports can potentially have desirable consequences. For example, can reporting that you have seen a brand before when you have not actually make you like it more—and if so, then why? This research addresses this issue in two field experiments that examine the attitudinal consequences of consumers reporting an increased awareness of brands they have never seen before.

The position that brand awareness is linked to brand attitudes has a long history in both the advertising and consumer behavior literatures. Hierarchy of effects models in advertising indicate that brand awareness causally precedes brand liking (Lavidge & Steiner, 1961; Barry & Howard, 1990). This same assumption has been made in brand preference models (Twedt, 1967; Keller, 1993). Despite a lack of empirical evidence supporting the contention that brand awareness results in more favorable brand attitudes (Vakratsas & Ambler, 1999), brand awareness is considered to be a necessary condition for marketplace success (Keller, 2008).

The most obvious means by which brand awareness is increased is through advertising repetition. Yet, depending on the measure used, the correspondence between actual and reported awareness is sometimes unclear. People might mistakenly report seeing or hearing about a brand when in fact they have not. This can occur with recognition-based awareness testing and can be a potential problem when reports are assumed to be true without a means to verify their accuracy. Kotler and Keller (2009) and Shimp (2007) indicate that recognition is a commonly accepted measure of brand awareness. Industry sources confirm that the use of self-reported measures of brand awareness is likely to overestimate actual awareness levels. For example, in a study examining uninformed response bias with grocery products, Goldsmith (1986) found that 40% of respondents indicated being aware of brands that did not actually exist. Similar problems have been observed with false claims of ad recognition using Starch “Noted” scores (Starch, 1966). In the Starch method, participants are shown individual ads from a publication and asked if they have ever seen that ad in that publication. A significant degree of false reporting of seeing ads has been independently confirmed by several investigators (Wells, 1964; Simmons, 1961; Clancy, Ostlund, & Wyner, 1979), leading some to question the meaning of the measurement since true recognition represents but a portion of the total claims. For example, Simmons (1961) observed that reports of seeing ads that were not present approached the same level as those that were present. Krugman (1985) argues that Starch scores measure attention-grabbing power. Wells (1964) suggests that Starch scores measure what respondents believe they would have seen rather than what they actually did. In response, some have offered methods of removing response bias from ad recognition scores (Singh & Cole, 1985).

FALSE REPORTS OF BRAND AWARENESS

False reports of brand awareness might even be a more serious concern for marketing managers than erroneous claims of seeing individual ads. Brand awareness levels are often used in making decisions for broad-based advertising campaigns across multiple media, which can be costly. False awareness might occur, for example, when introducing a line extension within a family branding

context. For example, Frito-Lay, Inc. research indicated that Cracker Jack brand consumers overstated awareness for several line extensions, for example, Cracker Jack Fat Free and Cracker Jack Nutty Deluxe (Kerin & Peterson, 2010). However, rather than address the extent of error in brand awareness scores, or the means to address it, a question examined in this research is whether false reports of brand awareness are necessarily a bad thing. False reports may be beneficial if consumers who erroneously believe they have seen a brand also believe other things in line with company brand objectives. Through two field experiments, this research tests how and why an increase in false awareness of a brand might have an effect on desired outcomes. The suspicion is that the veracity of brand awareness memory has little bearing on whether it affects other measures of interest to marketers, such as brand attitudes. If someone believes they have seen a brand before, what should matter most in terms of consequent effects is not whether it is true but how strongly they believe it.

In order to address these questions, fictitious brands were examined, providing an assessment of “false memory” effects. This literature has demonstrated that under certain conditions false or distorted memories can be implanted in respondents (Macrae et al., 2002). Hyman and Loftus (1998) suggest that for a false memory to occur, respondents must consider the event to be plausible and believe they were likely to experience that event. Roediger and McDermott (1995) emphasize that the process of false memory creation relies on the combination of self-knowledge and the suggestibility of an event. In consumer contexts, Braun (1999) and Braun, Ellis, and Loftus (2002) found that ads can be confused with personal experiences, resulting in the distortion of consumer memories.

Little prior research has studied the consequences of false memory creation, such as attitudes or behaviors. The studies that do exist have examined issues with strong prior opinions or high levels of respondent involvement, such as attitudes toward gay men (McIntire et al., 2004) and adverse childhood experiences (Bernstein et al., 2005). What has not yet been demonstrated is whether and why false memory creation has any attitudinal relevance toward commonly purchased consumer goods not likely to generate strong cognitive or affective reactions. These issues were examined in this research holding brand exposures constant to control for the effects of mere exposure (Zajonc, 1968; Janiszewski, 1993) and objective familiarity (Howard, 1997; Hoyer & Brown, 1990) on attitudes. Differences in an observed relationship between false brand awareness and attitudes, holding brand exposures constant, could not be explained through mere exposure or other bases of objective familiarity. This point is an important one since prior research demonstrating mere exposure and familiarity effects on brand attitudes causally link those effects to variation in brand exposure, or presumed exposure. This research examined what occurs when consumers change their mind (their subjective probability estimates) over the course of just a couple of minutes about whether they have seen a (fictitious) brand before, independent of additional exposure to that brand. Would such an event have any meaningful consequences for consumer brand attitudes?

There are reasons to expect that changes in false reports of brand awareness might not be systematically related to brand attitudes. The literature on uninformed response bias (Graeff, 1999, 2002, 2003) suggests that attitude data provided by consumers on fictitious brands can contain significant error. This is especially a problem when “don’t know” options are not provided in questions

presented to consumers (Graeff, 2002), which is the norm for semantic differential items used in much attitude research. When consumers know nothing about a brand, consumer knowledge schemas may result in attitudes being based on stored information related to something else, such as a different but similar-sounding brand. Alternatively, consumers might simply report an attitude because one is expected, even though it lacks real meaning (Graeff, 2003). In either of these scenarios, one would not expect changes in reported awareness of a fictitious brand to systematically vary with attitudes toward that brand because of the error in the attitudinal data. From another perspective, however, the act of reporting changes in false brand awareness might very well result in brand attitudes being systematically linked to those changes—because of what happens when people change their minds. This research argues that when consumers change their mind, they attempt to self-justify that change, which mediates the development of attitudes toward the brand they changed their mind about.

BRAND AVAILABILITY AND FALSE BRAND AWARENESS

The measure of false brand awareness used in this research reflects consumer confidence (probability estimates) that they previously saw a brand, consistent with prior research that has examined false cognitions (Garry et al., 1996; Braun, Ellis, & Loftus, 2002). A likelihood (probability) estimate was selected as a measure of false brand awareness because the outcome of memory search is not an either-or decision. It is specified to different degrees of confidence. Confidence, in turn, serves as a gatekeeper that determines the effect of memory on other relevant constructs (Swann & Gill, 1997). Information more confidently retrieved from memory will often have a stronger effect on subsequent decisions (Cowley, 2004).

A change in false awareness is induced in these studies through the use of a brand availability manipulation. The perceived availability of a brand at a store is expected to affect the likelihood that frequent shoppers will feel they *should have seen* that brand on a previous shopping trip even when they have not, resulting in the heightening of false brand awareness. For example, imagine being a loyal store shopper at a particular grocery chain and being intercepted just prior to entering the store on a shopping trip. You are shown a picture of a brand, which in reality is fictitious, and asked if you have ever seen it before. You give a low probability estimate. But then you are informed that the store you are about to enter currently carries (vs. at a future date will carry) that brand and asked again whether you have ever seen it before. When told the brand is currently available, you change your mind and this time you give a higher probability estimate of previously seeing it. The question addressed in this research is what, if any, would be the attitudinal consequences of changing your mind?¹

¹ This view does not assume that consumers like all brands sold at the store where they shop, although the authors believe that loyal/frequent customers are more inclined to like what that store sells. This research also does not indicate that changes in beliefs about a store carrying a brand one is familiar with will make one like it more. This is an important clarification. A change in one's subjective awareness of having seen a brand that appears unfamiliar is different than changes in one's beliefs that a store carries a brand with which one is very familiar. A change in one's belief that a store where one shops carries a familiar brand would not result in an increase in one's awareness of that brand. The attitudinal effect of changes in belief (even if false) that a store carries a brand that one is familiar with is not an issue examined in our research.

CHANGES IN FALSE BRAND AWARENESS, SELF-JUSTIFICATION, AND BRAND ATTITUDES

An expectation that a change in false brand awareness should influence brand attitudes is based on the position that individual change is a self-relevant experience. In short, when we change our mind it implicates us. Because of that, self-enhancement or protection processes often become engaged (Brown, Collins, & Schmidt, 1988) as people attempt to explain the change they just made.

When a change in reported brand awareness is accompanied by a defense of that change, it should be manifested in the content of consumer thought processes. Prior research has demonstrated that thought generation accompanies defensive processing (Chaiken, Giner-Sorolla, & Chen, 1996; Sears & Funk, 1991). In these studies, it is expected that consumer thought processes will focus on explaining (defending) why they changed (or didn't change) their reported awareness of the brand. Although not all thoughts will be favorable toward the brand, particularly since it is fictitious (Graeff, 2002), it is anticipated that when people attempt to justify reported increases in brand awareness, the profile of those thoughts will tend to be positive in valence. People often attribute value and importance to things they know, or think they know, since knowledge itself is a personal possession that reflects on the self (Higgins, 1987; Banaji & Prentice, 1994). These attributions might be pronounced among those who are well informed about a topic (Alba & Hutchinson, 1987). For example, customers who frequently shop at a store might consider themselves well informed about the assortment of goods that store carries. Hence, when those consumers change their mind and increase (decrease) their reported brand awareness, it is suspected that brand-related thoughts justifying that change should be more (less) favorably biased. This should be especially true when the awareness change occurs within a favorable brand-related context, such as being informed that the brand is sold at the store they normally shop. Consistent with dual process theories of persuasion (Petty & Cacioppo, 1986; Chaiken, 1980, 1987), favorable brand thoughts should result in favorable brand attitudes.

STATIC VERSUS CHANGE MEASURES AND THEORETICAL EXPECTATIONS

Since "change" by definition is a process, that process may not be represented well by point (static) judgments. Change in these studies is measured using individual change scores. The use of change scores has long been debated (Cronbach & Furby, 1970; Benjamin, 1973), and questions have focused on their potential unreliability (Humphreys, 1996; May & Hitner, 1997). Some advise against the use of change scores in consumer research, except when there is a strong theoretical justification (Peter, Churchill, & Brown, 1993).

In these studies, a change in false brand awareness is expected to engage self-relevant thinking manifested in the generation of thoughts that attempt to justify the change just made. The greater the change, the greater the need to justify that change, and the greater should be the attitudinal impact of defensive thoughts regarding that change. If this logic is correct, a measure of change in false brand awareness (time 2 minus time 1) should be more strongly predictive

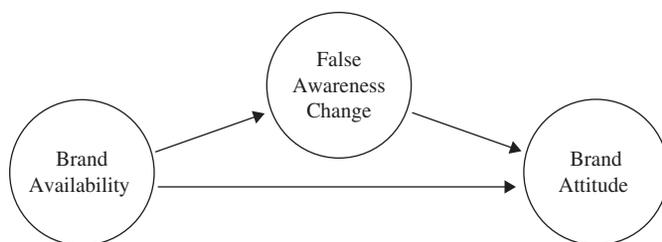


Figure 1. Mediation model tested in Experiment 1.

of either thoughts or attitudes than static measures of awareness (time 2 or time 1). This should be found because the difference, but not a static, measure will reflect the degree of change in false brand awareness theoretically expected to drive the level of defensive processing that occurs. This expected linkage between the degree of consumer change and the level of defensive processing that occurs suggests a theoretical basis for anticipating greater utility from a measure of change in false brand awareness than from a static item.

EXPERIMENTAL HYPOTHESES AND OVERVIEW

The studies reported here were conducted as field experiments. Field experiments can have advantages in the construct validity of experimental arrangements (Cook & Campbell, 1979). A field setting was selected because the interaction between selection, setting, and treatment was expected to partially determine the effectiveness of the treatments used. Hence, primary household shoppers intending to shop at a particular store were intercepted as they entered the store to manipulate the availability of a brand sold by that store. The first experiment examined the relationship between changes in false brand awareness and brand attitude.

The hypotheses for Experiment 1 are as follows:

H1: Changes in false brand awareness mediate the effect of brand availability on brand attitudes.

H1 is diagrammed in Figure 1. The second hypothesis contends that a measure of false brand awareness change has theoretical utility in explaining consumer attitudes.

H2: Changes in false brand awareness more strongly mediate the effect of brand availability on brand attitudes than static measures of false brand awareness.

Mediation testing was conducted using Baron and Kenny's (1986) method. Baron and Kenny state that three regression equations must be estimated to establish a mediation model, and the following effects must hold: (1) a significant effect of regressing the dependent on the independent variable; (2) a significant effect of regressing the mediator on the independent variable; and

(3) when regressing the dependent variable on both the mediator and the independent variable, the effect of the independent variable must be weaker than in Equation (1). If all three conditions hold, the mediational model is supported. Baron and Kenny (1986) note that “the strongest demonstration of mediation” (p. 1176) occurs when the independent variable is reduced to nonsignificance in Equation (3). The Sobel test (*S*, hereafter) was used to indicate whether an observed effect of an independent on a dependent variable is significantly mediated (Sobel, 1982).

EXPERIMENT 1

Method

Procedure. Consumers were intercepted prior to entering outlets of a national supermarket chain in a large southwestern city. Each was asked to participate in a research study on product brands. Respondents were not compensated for their time. All participants were primary shoppers for grocery products in their household. All participants were also frequent shoppers at that supermarket chain and provided answers such as “always,” “usually,” and “typically” when asked if that store chain was their first shopping choice for everyday household products.

Respondents were given two manila envelopes. One contained an 8 × 10 color photograph of a fictitious brand of drain cleaner (Hurricane); the other contained an Information and Opinion Booklet. They were first asked to examine the photograph (see Figure 2). Respondents put the photograph back in the envelope when they were through. Next, they took out the Information and Opinion Booklet, which contained the experimental manipulations and measured variables.

The first page of the Information and Opinion Booklet was a cover page. A brand awareness item was presented on the second page that asked, “How likely or unlikely is it that you have seen or heard of the Hurricane brand of drain cleaner?” Answer categories ranging from 0% to 100% were presented, with 0% indicating certainty they have never seen/heard of the brand before and 100% indicating certainty they have seen/heard of the brand before. When respondents were finished, they turned the page.

The third page contained a paragraph of information on the history and growth of the Hurricane brand in the marketplace. Included in that paragraph was a brand availability manipulation. Half of the participants were told the brand is currently sold at the store they were about to enter and half were told the store would begin selling the brand next year.

On page 4, respondents were told that the makers of Hurricane were especially interested in consumer awareness of their product and now that they have learned a little more about the brand to please [again] indicate, “How likely or unlikely is it that you have seen or heard of the Hurricane brand of drain cleaner?” using the same 0% to 100% answer categories described previously. Participants were told they could re-examine their previous answer and also the photograph prior to responding to this item a second time.

Page 5 contained three sets of items. First, attitude toward the Hurricane brand was measured. Respondents were asked, “I personally feel that the Hurricane



Figure 2. Brand stimulus in Experiment 1.

brand of drain cleaner is” good–bad, undesirable–desirable, beneficial–not beneficial. Attitude toward products sold by the retailer was measured next. Respondents were asked, “I personally feel that the products sold at [retailer] are” good–bad, undesirable–desirable, beneficial–not beneficial. Both sets of attitude items used 7-point scales. Finally, respondents were asked how often drain cleaner was used in their household, with a 5-point scale ranging from never to very frequently.

Design and Participants. Brand availability (current availability vs. later availability) was a between-subjects factor and time of measurement (time 1, time 2) was a within-subjects factor. For means testing, this one-between, one-within repeated measures design was relevant to the awareness data, while only the between-subjects factor was relevant to analysis of the attitudinal data. One hundred twenty ($N = 120$) consumers participated in Experiment 1.

Results

The three items on attitude toward the brand ($\alpha = 0.91$) and store products ($\alpha = 0.81$) were found to reliably measure the same underlying constructs. They were therefore summed to form indices. Therefore, the attitude toward the brand index had a range from 3 to 21, as did attitude toward store products.

Means Tests. A main effect of time of measurement was found [$F(1,118) = 10.55, p < 0.002$], with awareness at time 2 being higher than at time 1. This was qualified, however, by a significant interaction between brand availability and time of measurement [$F(1,118) = 9.63, p < 0.002$]. Respondents who were told the

retail chain would begin selling the brand next year reported almost identical likelihood levels of brand awareness at time 1 ($M = 13.83\%$) and time 2 ($M = 14.00\%$) ($t < 1$). Respondents who were told the retail chain currently sold the brand reported a significant increase in likelihood brand awareness from time 1 ($M = 14.00\%$) to time 2 ($M = 21.33\%$) ($t = 4.23, p < 0.00001$).²

A significant effect of brand availability on brand attitude was found ($[F(1,118) = 11.28, p < 0.001]$). Those told that the store currently sold the brand liked it more ($M = 13.77$) than those told the store would start selling it next year ($M = 12.15$). Brand availability did not have a significant effect on respondent attitude towards products in general sold by the retailer [$F(1,118) = 1.95, p < 0.17$] ($M = 17.83, 17.27$).

Mediational Tests. Mediational testing was performed to determine whether a change in false brand awareness mediated the effect of availability on brand attitude. For these tests, the level of false brand awareness change was obtained by subtracting the static time 1 from the static time 2 measure. False awareness at time 2 and false awareness change (from time 1 to time 2) were compared as potential mediators. False awareness at time 1 was not significantly related to brand attitudes and hence there are no mediational effects to report (all $S < 1$). Product usage also had no effect on the mediational findings.

Of the three equations required for estimation using Baron and Kenny's (1986) method, one was common to both competing measures: regressing the dependent variable (brand attitude) on the independent variable (brand availability). This effect was significant [$F(1,118) = 11.28, p < 0.001$].

The mediational effects of time 2 awareness were tested first. The regression of false brand awareness at time 2 on brand availability was significant [$F(1,118) = 4.82, p = 0.03$]. When regressing brand attitude on both the mediator and brand availability, the effect of availability on attitude remained significant [$F(1,117) = 6.81, p = 0.01$] ($S = 2.05, p = 0.04$).

Next, the mediational effects of false brand awareness change were tested. The regression of false awareness change on brand availability was significant [$F(1,118) = 9.63, p < 0.002$]. When regressing attitude on both false awareness change and brand availability, the effect of availability on attitude was reduced to marginal significance [$F(1,117) = 3.20, p < 0.08$] ($S = 2.93, p = 0.003$). These findings support H1 and H2.

Discussion

Experiment 1 demonstrates that changes in false brand awareness mediate the formation of brand (but not store) attitudes and that change scores have greater

² A reviewer noted that, on an intuitive level, it makes sense that the brand availability manipulation worked. The authors agree—and selected that manipulation because in pretesting it was found to be effective at increasing reports of false brand awareness, which allowed them to answer the question they wished to investigate: What happens when people change their minds about having seen a brand before? The authors acknowledge that the means by which awareness change was manipulated is unlikely to be observed in natural market environments—but they also believe that the *outcomes* of the change observed (which is what the paper really addresses) were genuine and should be generalizable to other contexts.

explanatory utility than static measures.³ These findings are theoretically intriguing because false awareness at time 1 was not related to brand attitude. Further, although false awareness at time 2 was a significant predictor, it was not as strong a mediator as the measure of false brand awareness change. These results suggest that the process and degree of change engages consumer dynamics not captured by either of the static awareness measures.

Experiment 2 tests whether defensive thoughts mediate the relationship observed between changes in false awareness and brand attitude. As such, Experiment 2 seeks to test a mechanism by which the results in Experiment 1 were obtained. Again, brand availability is expected to result in changes in false brand awareness. Along with the increase in false brand awareness, an increase in favorable defensive cognitions (thoughts directed at the brand by respondents self-justifying their reported awareness) and attitude is anticipated. Any observed effect of brand availability on defensive thoughts, however, is hypothesized to be mediated by increases in false brand awareness. Similarly, the effect of changes in false brand awareness on attitude, as observed in Experiment 1, is hypothesized to be caused by the generation of favorable defensive thoughts. Stated differently, the appearance of a causal relationship between false awareness change and attitude observed in Experiment 1 is hypothesized to be due to the fact that awareness change mediates the development of favorable defensive thoughts, which in turn mediates brand attitude development. In Experiment 2, a defensive thought profile (the number of positive thoughts minus the number of negative thoughts) was used as a measure of their relative favorability (see Petty & Cacioppo, 1986) and called “net” defensive thoughts. Two hypotheses were tested in Experiment 2:

- H3:** Changes in false brand awareness mediate the effect of brand availability on net defensive thoughts.
- H4:** Net defensive thoughts mediate the effect of changes in false brand awareness on brand attitude.

Hypotheses 3 and 4 are diagrammed in Figure 3.

EXPERIMENT 2

Method

Procedure. The procedure used in Experiment 1 was employed again, with modifications made in the stimuli and measures. Two different and fictitious

³ An initial study ($N = 240$) was conducted to eliminate the possibility that experimental demand can account for the effect of the brand availability manipulation on changes in false brand awareness. Using the same methodology reported in Experiment 1, brand availability was again actively manipulated. However, “shopper frequency” was also passively manipulated. Persons who stated that they “always,” “usually,” or “typically” select this store as their first choice (called “frequent shoppers”) were compared to “infrequent shoppers” who stated they generally shop elsewhere. The same findings reported in Experiment 1 were obtained for frequent shoppers, i.e., an increase (no increase) in false brand awareness from time 1 to time 2 when the brand was currently (not currently) available. However, no significant increase in false brand awareness from time 1 to time 2 was obtained for infrequent shoppers across levels of brand availability. If demand were the cause of increases in false brand awareness at time 2 for frequent shoppers told that the brand was currently sold by the store, the same or even a greater increase should have been found for infrequent shoppers. That result was not obtained.

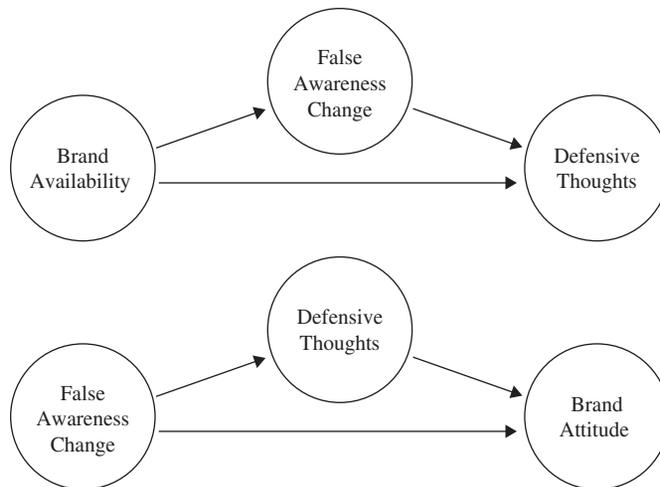


Figure 3. Mediation models tested in Experiment 2.

brands in a different product category were used (Vineyard Grapes and Nutri-Veg Mixed Vegetables; see Figure 4) to evaluate whether the earlier findings generalize across product categories. A thought listing task was added to the measures used in Experiment 1. On the page following the time 2 awareness measure respondents were told to list the thoughts they had about the target brand. Respondents were presented with a page containing ten boxes to list their thoughts and asked to place only one thought in each box.

Thoughts were coded as defensive, non-defensive, or other. Defensive thoughts were those directed at the brand in which respondents attempted to justify changing (or not changing) their minds about having seen it before. Respondent defensive thoughts included: “On second thought, I think I saw a friend using this”; “I’m a loyal [retailer] shopper so I might have seen it”; “I changed my answer a little bit because it does look a little familiar to me”; “I answered the same way both times because I’m pretty sure I’ve never seen it before”; “I didn’t think so the first time you asked and I don’t think so now.” Non-defensive thoughts were directed at the brand without attempting to explain or justify a change or lack of change in brand awareness. Respondent non-defensive thoughts included: “Nutritional vegetables. OK”; “Can I get a free sample?”; “I like/I buy [competitive brand/product]”; “It must be doing good to be sold at [retailer]”; “I only eat [fresh fruits/vegetables].” Many respondents reported simple statements of position, such as “Don’t know it” and “Never heard of it.” These thoughts were categorized as non-defensive. “Other” thoughts included cognitions not directed at the brand, including, for example, thoughts about product marketing (“They need to do a better job in the store”), the research study (“You people need to do this inside”), and unrelated thoughts (“I don’t really know what to say”). Two coders blind to experimental conditions classified thoughts into the three categories. Inter-rater agreement was 0.92 and disputes were resolved through discussion. Those same coders also rated each thought as either positive, negative, or neutral with respect to the target brand (inter-rater agreement = 0.82) with disagreements again resolved through discussion. Net (positive – negative) defensive and non-defensive thoughts were examined as potential outcomes of awareness change and as potential mediators of brand attitude per Petty and Cacioppo (1986).



Figure 4. Brand stimuli in Experiment 2.

Subjects and Design. Brand availability (current availability vs. later availability) and product (grapes vs. vegetables) were between-subjects factors and time of measurement (time 1, time 2) was a within-subjects factor. For means testing, this two-between one-within repeated measures design was relevant to the awareness data, while only the between-subjects factors were relevant to analysis of the attitudinal data. Two hundred forty ($N = 240$) respondents participated in Experiment 2.

Results

The three items measuring attitude toward the target brands ($\alpha = 0.86$) and attitude toward products sold by the retailer ($\alpha = 0.80$) were found to measure the same underlying construct. The items were summed to form indices as described in Experiment 1.

Means Tests. A main effect of time of measurement was found [$F(1,236) = 27.95$, $p < 0.0001$], where false awareness at time 2 was greater than at time 1. This

main effect was qualified by a significant interaction between brand availability and time of measurement [$F(1,236) = 15.74, p < 0.0001$]. A significant difference in mean brand awareness scores was found when respondents were told that the retailer currently sells the brands (time 1: $M = 12.50\%$; time 2: $M = 20.67\%$; $t = 6.54, p < 0.0001$). No significant difference in false awareness scores was found when respondents were told the retailer would sell the brands next year (time 1: $M = 13.50\%$; time 2: $M = 14.67\%$; $t < 1$). These results replicate the findings in Experiment 1. No significant product effects were found, indicating consistency of the results across the two brands.

A significant effect of brand availability on brand attitude was found [$F(1,236) = 8.65, p < 0.004$]. Those told that the retailer currently sells the brand reported a more favorable attitude ($M = 13.53$) than those told the store would sell the brand next year ($M = 12.47$). Again, no product effects were obtained. No significant effects were found for attitude toward products sold by the retailer (all $F < 1$).

ANOVA results revealed a significant effect of brand availability on net defensive thoughts [$F(1,236) = 7.21, p < 0.008$]. Respondents who were told that the retailer currently sells the brands reported more favorable thoughts ($M = 0.86$) than those told that the retailer would sell the brands next year ($M = 0.51$). However, no effect of brand availability on net non-defensive thoughts was found ($F < 1$). Those in the future availability condition reported about the same number of net non-defensive thoughts ($M = 0.43$) as those in the current availability condition ($M = 0.54$). No significant effect of brand availability on "other" thoughts listed was found, and this variable will not be further discussed. No significant effects of the product variable were observed for any of the thought measures.

Mediational Tests. Only brand availability was modeled as an independent variable given the lack of any significant product effects. The first set of tests examines whether false brand awareness adequately mediates brand attitudes. Neither the time 1 measure of false awareness nor the product usage variable affected the mediational results. As in Experiment 1, false awareness at time 2 was compared to false awareness change (from time 1 to time 2), which was again obtained by subtracting the time 1 measure from the time 2 measure. Common to both sets of tests, the dependent variable (attitude) is related to the independent variable (brand availability) [$F(1,238) = 8.72, p < 0.003$].

First, the mediational effects of time 2 false awareness were examined. Regressing time 2 false awareness on brand availability produced a significant effect [$F(1,238) = 6.97, p < 0.01$]. When regressing attitude on both time 2 false awareness and brand availability, the effect of availability on attitude remained significant [$F(1,237) = 5.38, p = 0.02$] ($S = 2.26, p < 0.03$).

Next, the mediational effects of false awareness change were examined. When regressing false awareness change on brand availability, a significant effect is obtained [$F(1,238) = 15.75, p < 0.0001$]. When regressing attitude on both false awareness change and brand availability, the effect of availability on attitude is reduced to marginal significance [$F(1,237) = 3.68, p < 0.06$] ($S = 3.08, p = 0.002$). These results support H1 and H2 and replicate the findings of Experiment 1.

The next set of tests examines whether false awareness change mediates the development of respondent thoughts. Net defensive thoughts (the dependent

Table 1. Experiment 2 Mediation Model and Standardized Regression Coefficients.

Dependent Variable	Independent and Mediator Variables			R^2	ΔR^2
	Brand Availability	False Awareness Change	Net Defensive Thoughts		
Brand attitude	0.19**	—	—	0.19	—
Brand attitude	0.12*	0.26***	—	0.32	0.13**
Net defensive thoughts	0.17**	—	—	0.17	—
Net defensive thoughts	0.04	0.53***	—	0.54	0.37***
Brand attitude	0.29***	—	—	0.29	—
Brand attitude	-0.01	—	0.56***	0.56	0.27***

* $p < 0.10$; ** $p < 0.01$; *** $p < 0.001$.

variable) are tested first. As noted above, false awareness change is significantly related to the independent variable (brand availability). The relationship between net defensive thoughts and brand availability is also significant [$F(1,238) = 7.27, p < 0.008$]. When regressing net defensive thoughts on both false awareness change and brand availability, the effect of availability on net defensive thoughts is reduced to nonsignificance ($F < 1$) ($S = 3.67, p = 0.0002$). These results support H3.

False awareness change as a mediator of net non-defensive thoughts (the dependent variable) was tested next. Although false awareness change is significantly related to the independent variable (brand availability), net non-defensive thoughts are not [$F(1,238) = 1.24, p > 0.25$] and hence there is no effect to mediate ($S < 1$). These results indicate that false awareness change mediates the development of defensive, but not non-defensive thoughts.

Finally, an examination of net defensive thoughts as a mediator of the relationship between false awareness change and brand attitude was tested. False awareness change (the independent variable) is related to attitude (the dependent variable) [$F(1,238) = 22.60, p < 0.001$]. Net defensive thoughts are also related to the independent variable [$F(1,238) = 107.29, p < 0.0001$]. When regressing brand attitude on both net defensive thoughts and false awareness change, the effect of awareness change on attitudes is reduced to nonsignificance ($F < 1$) ($S = 7.07, p < 0.00001$). These results support H4 and indicate that defensive thoughts adequately explain the development of brand attitudes. Table 1 provides regression coefficients and effects of adding mediators to the models tested in Experiment 2. Figure 5 summarizes the results of the mediational testing.

Discussion

Experiment 2 demonstrates that the results from Experiment 1 are robust and replicate across different brands and product categories. Increases in false brand awareness result in favorable brand attitudes. Moreover, false brand awareness change has stronger mediational effects on brand attitude than static awareness measures. The relationship between false awareness change and attitude observed in Experiment 1, however, is now clarified. Mediational tests indicate that increases in false brand awareness motivate defensive processing: People

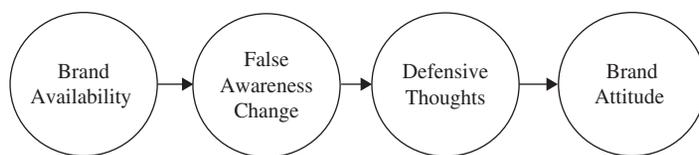


Figure 5. Summary of mediational models tested.

generate thoughts to self-justify changing their minds. Those thoughts, in turn, explain the observed attitudinal effects.⁴

GENERAL DISCUSSION

The results of this research indicate that when increases in false brand awareness occur, something happens in addition to the fact that people believe they are more aware of the brand. Changes in false awareness set in motion a complex process of cognitive and affective dynamics. There are four primary contributions of this work.

One contribution of this research is the first demonstration that changes in subjective estimates of brand awareness can affect attitudes independent of brand exposures. Prior research on both brand familiarity and mere exposure tie their effects to variations in exposure to a brand. In this research, the results show how and why brand exposures do not need to differ in order for subjective changes in awareness to impact brand attitudes. Specifically, the findings indicate that the simple act of changing one's perceptions of brand awareness can contribute to attitudinal development independent of changes in exposure to a brand.

A second and related contribution is the finding that the creation of a false brand memory can result in more favorable brand attitudes. The demonstration of this effect, which has been absent in the literature, highlights the potential benefits of false brand awareness. Although the extent of false brand awareness in practice is not precisely known, this issue is likely not a trivial one.

In addition to the store contextual effects that were examined here, the introduction of a line extension within a family branding context, new brands with common names, or names that evoke common concepts might also result in false awareness. Using recognition-based awareness testing, the possibility of false reports in these cases might be considerable. The question then becomes whether false awareness is desirable or undesirable. It would arguably be undesirable when calibrating awareness as an indicator of the effectiveness of an advertising campaign; actual and not reported brand awareness would be the construct of interest. However, the results obtained here suggest that false awareness of

⁴ A reviewer cautioned that the results might be explained by uninformed response bias (URB). The authors do not believe this is a concern given the outcomes of their experiments. If URB dominated the answers provided by the respondents in their studies, that error would have resulted in a disconfirmation of the hypotheses because of the increased level of statistical noise across experimental conditions. Although URB might explain why hypothesized effects are not supported, the authors do not believe URB offers a viable alternative explanation for why they did obtain support. If the attitudinal data were error ridden due to URB, they would not have behaved consistently with theoretical expectations, as seen in the mediational models tested.

a brand might not be undesirable, for example, when a consumer encounters a brand in a store. A customer perusing the shelves at a supermarket and initially dismissing a new brand but then noticing its trusted manufacturer and deciding, "On second thought, I think I've seen this before," would be a process wholly consistent with the studies reported here. There are likely to be numerous instances of consumers ignoring brands that at first they do not recognize but, on reflection, a subjective sense of awareness grows due to contextual, associational, or similarity factors. These cases would also be applicable to the findings reported here. Given the favorable attitudinal consequences of consumers believing they have previously seen a brand, the findings suggest that firms might be advised to focus on the opportunistic implications of false brand awareness, and perhaps even take steps to stimulate rather than reduce its occurrence.

One question that might be raised is whether the relationships observed would be found when people change their minds in the course of daily life. Although the experimental arrangements utilized to induce awareness change are unlikely to be observed in natural market environments, the outcomes that followed were genuine. People willingly changed their reported brand awareness without external pressure or coercion, which had persuasive consequences. The *outcomes* of change observed in these experiments are likely to be found in other contexts when change occurs (a) consciously, (b) by reason of free inner choice, or (c) relatively soon after making an initial judgment. The paradigm reported here provides ample opportunity for additional research.

A third contribution is the explanation provided for the relationship between false brand awareness change and brand attitude. When consumers changed their reported awareness of brands, they attempted to self-justify the change by generating thoughts that were favorably biased toward the brand they changed their minds about. This in turn resulted in more favorable brand attitudes. The fact that self-justification occurred in the context of changes in false brand awareness, and to a degree that it mediated the development of brand attitude, is theoretically significant for at least two reasons. First, although defensive processing is recognized as an important affective motivation (Eagly & Chaiken, 1993), no prior research has demonstrated its mediational significance in the development of brand attitudes. This research fills that void. Second, this finding also highlights the importance of the self-relevancy of memories when examining the memory-attitude relationship. The more strongly memories are linked to the self, whether through experiences of living, personal change, or personal value systems, the stronger should be the relationship of those memories with attitude. In these studies, the process of change heightened the self-relevancy of false awareness as indicated by the generation of defensive thoughts.

This view of the relationship between memory and attitude might have value in understanding other findings that have been reported. The meta-analytic study on the congeniality effect conducted by Eagly et al. (1999) is a case in point. The congeniality effect indicates that people should have better memory for information that supports their attitudes, a prediction that has been notoriously inconsistent over the years. Across studies, these investigators found that the relationship between recognition and attitude was significantly stronger for issues linked to important personal values. They speculated that defensive motivation might underlie that effect. These findings and suggestions are consistent with the proposition that the self-relevancy of information in memory

helps determine its relationship with attitude and that defensive processing can account for that effect.

A fourth contribution of this work is the demonstration that changes in reported brand awareness not only predict attitude but do so better than static awareness measures. This result is notable for two reasons. First, arguing for the importance of understanding individual change in false brand awareness would clearly be less compelling if a static measure proved of equal or greater value in explaining outcomes. Second, most literature suggests that measures of change should be avoided because they compound unreliability. Although the use of individual change scores is not common in consumer research, their use can be justified on theoretical grounds. Specifically, it was argued that the greater the change in false brand awareness, the greater the self-relevance of that change, and the stronger should be its effect on cognition and attitude. Hence, a measure that reflects the degree of individual change was predicted and found to mediationaly outperform one that did not. These findings suggest that researchers need not categorically abstain from the use of change scores in consumer testing. Rather, researchers should ask what the change represents and why it occurs when deciding on appropriate measures.

The experimental procedure used in these studies was exclusively oriented toward producing an increase in false brand awareness. Future research might consider developing a means of equivalently affecting increases and decreases in brand awareness to evaluate the contingencies of bidirectional change. A challenge in achieving this objective is that in preliminary testing a non-symmetrical effect on the number of people willing to change their minds in both directions was observed. It was easier to get people to say they have seen something before when they first say they have not than to say they have not seen something before when they first say they have. Other investigators might consider this dilemma further. Meanwhile, the results reported here provide a foundation for inquiries into a neglected area of research.

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