The Effects of Imagery, False Memory and Experience on Attitude Confidence

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We examine whether the use of imagery in advertising can create false memories about brand experiences among consumers, thereby affecting the confidence with which consumers hold attitudes about an advertised brand. We propose that viewing a high imagery ad (compared to a low imagery ad) may create a false memory that consumers have used the brand in the past. Since direct product experience leads to more confident attitudes than attitudes based on indirect experience, this false memory about brand usage may lead to more confident brand attitudes. Thus, imagery can have effects on attitude confidence that are equivalent to the effects of actual direct experience.

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EXTENDED ABSTRACT

Two key variables that have been little considered in the marketing literature on imagery are the creation of false memories and attitude strength. A false memory may consist of a mistaken belief that a fictitious event occurred (e.g., being lost in a mall as a child) or a distortion of an event that actually did occur (e.g., meeting Bugs Bunny at Disneyland instead of Mickey Mouse). Recent research in psychology (e.g., Mazzoni and Memon 2003) has suggested that imagery can lead to the development of false memories. Thus, imagery can make respondents incorrectly believe that an event was actually experienced by them.

Based on this stream of research, we suggest that if false memories are implanted through imagery, these false memories may exhibit some effects that are similar to genuine product experience. Past research in marketing has demonstrated that product experience leads to stronger attitudes as compared to attitudes that are based on indirect product experience such as exposure to advertising (e.g., Regan and Fazio 1977). If imagery results in a mistaken belief that consumers have direct experience with a product (i.e., false memory), then it follows that imagery and experience may have equivalent effects on attitude strength. Therefore, we propose that attitudes based on imagery-evoking information will be stronger than attitudes based on information that is not imagery-evoking due to the creation of false product experience memories following exposure to a high-imagery advertising message.

Study 1

Design: 2 (image-provoking ability of the ten ads: high-imagery vs. low-imagery) x 10 (different products) mixed design, with imagery as the between-subjects factor and the different products as the within-subjects factor with 100 undergraduate students.

Procedure: Respondents were given a series of 10 print advertisements and given 45 seconds to view each ad. One week following the presentation of the ads, respondents were asked to complete an online survey containing the dependent measures.

Dependent measures

False memory. We used two different measures of false memory. The first measure was a product usage memory measure wherein, participants were provided with a list of fifty brands, amongst which were the ten target brands contained in the series of ads. Respondents were asked to select all of the brands that they believe they had used at least once. For the second measure, five brands (two target brands and three filler brands from the list) were each presented to respondents with a series of three statements (“I have purchased this product,” “I have seen this product in local grocery stores,” “I have heard about this product from friends or family members”) and respondents were asked to select all statements that apply.

Attitude and attitude strength. Attitude was measured through the use of a four-item, seven-point scale (bad-good, negative-positive, unfavorable-favorable and undesirable-desirable). Attitude strength was measured using a three-item, seven-point scale (“how strongly do you hold the opinion about ___?”, “how confident are you in your opinion of ___?” and “how certain are you in your opinion of ___?”)

Results

There were no differences in self-reported involvement between any of the experimental conditions (all p-values>.1). There was no effect of imagery on attitudes towards the two target brands (M_{High Imagery}=5.21, M_{Low Imagery}=5.02, F (1, 73)=0.75, p>.1).

Attitude strength. There was a significant main effect of imagery on attitude strength towards the two target brands (F (1, 73)=6.36, p<.05). Respondents exposed to the high-imagery ads reported stronger attitudes (M=6.01) than respondents exposed to the low-imagery ads (M=5.06). Thus, H1 was supported.

Product Usage Memory. There was a significant main effect of imagery (F (1, 73)=5.26, p<.05) such that respondents that were exposed to the high-imagery ads selected more targets from the list on average (M=2.50) than respondents that were exposed to the series of low-imagery ads (M=1.69). Thus, H2 was supported.

Second memory measure. Respondents that read the high-imagery ads selected more false memory statements on average for each of the target brands (M=1.14) than respondents that read the low-imagery ads (M=0.61, F (1, 73)=13.20, p<.05), supporting H2. There was not a significant difference between the two conditions in terms of the number of false memory statements selected for the filler brands (p >.05).

Mediation analysis. To test whether false memory mediated the effect of imagery on attitude strength, we conducted analyses in line with the procedure outlined in Baron and Kenny (1986). The following three relationships were established: (1) Imagery predicts attitude strength (β=.28, p<.05) (2) Imagery predicts false memory (β=.39, p<.05) and (3) When imagery and false memory are included as predictor variables, only false memory significantly predicts attitude strength (β=.25, p<.05) and imagery is reduced to non-significance (β=.19, p>.1). These results suggest that false memory fully mediates the effect of imagery on attitude strength.

Study 2

Design: 2 (direct product experience: yes vs. no) x 2 (imagery: high vs. low) between-subjects design with 113 undergraduate students.

Procedure: Respondents were exposed to the same set of 10 ads used in study 1 and were given 45 seconds to read each ad. Respondents in the no-experience condition then moved on to another study. Respondents in the experience conditions were informed that they would be given one of the advertised products to taste. The target product used in the study was Orville Redenbacher’s Blue Corn popcorn. Respondents were given half of a cup of popcorn to taste. Since the target brand was a fictitious brand, we used ACTII popcorn for the taste experience. One week after the experiment, respondents were contacted by e-mail and instructed to complete a survey online.

Dependent measures: We measured false memory, attitude and attitude strength for the Orville Redenbacher popcorn using the same measures as in study 1.

Results

False memory. Planned contrasts revealed that in the no-experience conditions, there was a significant effect of imagery on false memory such that respondents that read the high imagery ads selected a significantly higher mean number of statements in the false memory measure (M=.91) than respondents that read the low-imagery ads (M=.64).

There was a significant main effect of imagery on attitude strength towards the two target brands (F (1, 73)=2.90, p<.05). Respondents exposed to the high-imagery ads reported stronger attitudes (M=5.21) than respondents exposed to the low-imagery ads (M=5.02). Thus, H1 was supported.

Product Usage Memory. There was a significant main effect of imagery (F (1, 73)=5.06, p<.05) such that respondents that were exposed to the high-imagery ads selected more targets from the list on average (M=2.50) than respondents that were exposed to the series of low-imagery ads (M=1.69). Thus, H2 was supported.
imagery ads ($M=.46, t=1.97, p=.05$). In the product experience conditions, as expected, there was no effect of imagery on false memory. There were no main or interactive effects of experience and imagery on the false memory for any of the filler brands and none of the planned contrasts were significant (all $p$-values>.1). Thus, as expected, the false memory creation was specific to the target brand alone.

The two experience conditions did not differ significantly on any of the dependent variables (all $p's>.1$) including attitude strength (supporting H3a), and hence we averaged the two experience conditions and conducted planned contrasts to test H3c.

**Attitude strength.** In line with expectations, we found that the experience conditions elicited significantly higher attitude strength than the low imagery alone condition ($M_{Experience}=6.1, M_{Low Imagery}=4.41, t=3.59, p<.01$), supporting H3d. The high imagery-no experience condition also elicited significantly higher attitude strength than the low imagery-no experience condition ($M_{High Imagery}=5.40, M_{Low Imagery}=4.41, t=2.08, p<.05$), supporting H3b. The experience and high imagery alone conditions were not significantly different ($t=1.60, p>.1$), supporting H3c.

**Attitude.** In line with expectations, we found that attitudes towards the target brand were significantly higher in the experience conditions ($M=4.93$) as compared to the high imagery-no experience ($M=4.39, t=2.13, p<.05$) and the low imagery-no experience conditions ($M=4.31, t=2.22, p<.05$). There were no differences between the high imagery and low imagery no experience conditions ($p>.1$).

Our research contributes to the literatures in imagery, product experience, and false memory. We extend the effects of imagery to include attitude strength, a variable that has not been previously considered in the imagery literature. Contrary to much of the previous research on product experience, we find that experience only results in stronger attitudes than an ad if the ad is pallid; an extremely vivid ad leads to equivalently strong attitudes as experience. Further, we find that the effect of imagery on attitude strength persists for as long as one week, suggesting that the effect is strong. In addition to contributing to research on imagery, we extend the false memory literature by considering the effects of false memory on attitudes and attitude strength.

**REFERENCES**