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Abstract

In three experiments, we examine the effects of attitude dissimulation (i.e., expressing false attitudes) on various dimensions of attitude strength. We propose that dissimulation involves access of true attitudes which serves to increase true attitude accessibility. At the same time, dissimulation creates an additional link in memory between the object and the false attitude, which serves to decrease true attitude accessibility. We hypothesize that the first positive effect will prevail in the case of initially strong (but not weak) true attitudes because the strength of the true attitude-object link can counteract the effects of the additional false attitude-object link. Experiment 1 documents that lying about one’s attitude toward a brand can increase accessibility of initial (true) attitudes to the same extent as truthful attitude expression, especially if these attitudes are strongly held. Results from Experiment 2 reveal that elaboration on weak attitudes at the time of dissimulation eliminates the differential impact of dissimulation on strong versus weak attitudes. Experiment 3 demonstrates that these effects generalize to important consequences of attitude strength, namely attitude-behavior correspondence and attitude persistence. Taken together, our experiments provide insight into the processes underlying the effects of dissimulation on attitude strength and highlight the potentially insidious effects of lying about one’s attitudes.
Anecdotal evidence as well as academic research supports that idea that people often lie to one another (DePaulo et al. 1996; Kashy and DePaulo 1996). In a general marketing context, salespeople often lie about their true feelings about the brands that they sell. In a more specific consumer context, people may lie about their possessions (e.g., lying about the price paid for a product) or their attitudes. For example, most people can recall instances of complimenting a friend about a new acquisition even when they did not truly like it. Given that we often indulge in such dissimulation, it is important to understand its consequences, which may not be as innocuous as is typically assumed.

Research in the area of attitude dissimulation has examined the effect of deception on the deceiver's own attitudes and has concluded that people tend to change their attitudes in the direction of the lie (Bem 1972; Festinger 1957; Salancik and Conway 1972). However, more recent research has found that such attitude change is limited to cases where dissimulation has aversive consequences for which the deceiver feels personally responsible (Cooper and Fazio 1984; Scher and Cooper 1989). Dissimulation in consumer settings typically does not have aversive consequences for the dissembler. For example, telling a friend that his new suit looks good (when you think it looks quite bad) may actually produce positive consequences for the friend as well as the dissembler. Research suggests that, in this situation, true attitudes may not change in the direction of the lie; however, attitude dissimulation may have important consequences for the strength with which true attitudes are held (Maio and Olson 1995).

Maio and Olson (1995) found that dissimulation that did not have aversive consequences produced a significant reinforcement of true attitudes that was manifested in increased attitude accessibility. However, this research focused on the effects of dissimulation on attitudes that were strongly held (e.g., attitudes towards murder, friendship, etc.). In the marketing domain, consumers are likely to hold relatively weak attitudes towards products and brands. We therefore contrast the effects of dissimulation on strong versus weak attitudes. Such an investigation is also theoretically important because researchers have identified attitude strength as an important construct that can explain many divergent findings in the attitudes literature (cf. Fazio 1990).
In this paper, we examine (1) how initial attitude strength moderates previously observed attitude dissimulation effects (Experiment 1), (2) the mechanism underlying this moderation (Experiment 2), and (3) the consequences of dissimulation for indicators of attitude strength other than accessibility such as attitude persistence and the attitude-behavior relationship (Experiment 3). We begin by introducing the concept of attitude accessibility and then discuss how dissimulation affects accessibility.

THEORETICAL FRAMEWORK

Attitude Strength and Attitude Accessibility

The present research draws on Fazio’s (1986) definition and operationalization of attitude strength in terms of attitude accessibility. Fazio has relied on the associative network model of memory to conceptualize attitude strength as the associative strength of the link between an attitude object and its evaluation. Attitude strength is considered to be the underlying characteristic of attitudes that determines their accessibility or ease of retrieval. If the object-evaluation association is strong, the evaluation is expected to be easy to access upon exposure to cues relating to the target object. Accordingly, the time taken to retrieve an evaluation of an object in response to a direct inquiry is used to measure attitude accessibility. Given the correspondence between attitude strength and accessibility, this latency based measure of accessibility is also the preferred measure of attitude strength when it is viewed in associative network terms (Fazio 1995).

Under this conceptualization, attitude accessibility is related to other dimensions of attitude strength such as attitude certainty and extremity. Indeed, significant correlations have been found between response latency measures of attitude accessibility and measures of attitude extremity and importance (Bargh et al. 1992; Krosnick et al. 1993; see also Fazio 1995 for a discussion). The significance of attitude accessibility is further highlighted by its crucial role as a factor that moderates the effects of attitudes on consequences such as stability and behavior (Berger and Mitchell 1989; Fazio, Powell and Williams, 1989; Zanna, Fazio, and Ross, 1994).
Research on the antecedents of attitude accessibility (and the underlying construct of attitude strength) has reliably documented that repeated attitudinal expression serves to increase accessibility (Fazio et al. 1982; Fazio, Powell and Herr 1983; Fazio et al. 1989; Powell and Fazio 1984). For instance, Fazio et al. (1982) found that participants who had repeatedly expressed their attitudes were subsequently faster at responding to an attitudinal inquiry, as compared to control participants who expressed their attitudes only once. This finding follows directly from the conceptualization of attitudes as object-evaluation associations. Principles of associative learning (Anderson 1990) posit that the more often an association is rehearsed, the stronger it becomes. Thus, repeated attitudinal expression increases attitude strength and consequently attitude accessibility. Increased accessibility, in turn, is manifested in lowered response latency of attitude expression when cued by the attitude object.

**Attitude Dissimulation and Accessibility**

If repeated expression of true attitudes increases attitude accessibility, what happens when people lie about their attitudes? Lying involves a conscious intention to deceive (e.g. DePaulo et al. 1996) suggesting that lying about one’s true attitude involves conscious activation of the true attitude itself. Therefore, in the same way as true attitude expression, repeated dissimulation involves repeated activation of the true attitude and this should result in increased attitude accessibility. Maio and Olson (1995) tested this hypothesis using a within-subjects design in which participants expressed false or true attitudes towards a variety of objects. Results revealed that repeated lying led to increased attitude accessibility of true attitudes. In fact, the increase in accessibility obtained by repeated dissimulation was equivalent to that obtained by the repeated expression of true attitudes. In both cases, accessibility improved significantly as compared to the case where attitudes were not expressed prior to measurement.

Maio and Olson (1995) proposed that conscious activation of true attitudes that is entailed by dissimulation acts towards increasing accessibility. However, research based on the associative network model of memory (Anderson 1990) suggests a mechanism whereby dissimulation should actually reduce accessibility. Specifically, this model posits that the
greater the number of pathways emanating from a source node, the lower the amount of activation along any single path. Such lowered activation serves to increase the reaction time involved in retrieving a target node -- a phenomenon known as the 'fan effect' (Lewis and Anderson 1976). In the present context, the target node of interest is the true attitude that is linked to the attitude object. The act of dissimulation sets up a new link between the attitude object and the 'false' attitude that was expressed during the act of dissimulation. Because of the fan effect, this additional link should result in reduced accessibility of the true attitude when cued by the attitude object.

This reasoning suggests that dissimulation, even if it produces increased accessibility as compared to a control condition, should be less beneficial than truthful expression of attitudes. However, Maio and Olson's (1995) results showed that dissimulation and truthful expression led to equivalent increases in accessibility. The solution to this seeming discrepancy lies in the nature of the attitudes studied by Maio and Olson. These researchers deliberately chose attitude objects (e.g., rapists, puppies, etc.) towards which participants were likely to have strong attitudes to ensure that participants would not have difficulty in identifying their true and false attitudes. The fan effect is likely to be less influential in cases where the object and its evaluation are strongly linked in memory. Therefore, dissimulating on strong attitudes increases attitude accessibility to the same extent as truthful attitude expression. However, when attitudes are weakly linked to the attitude object, the fan effect is likely to operate because the original object-attitude link is not strong enough to counter the new link set up between the object and the false attitude. In this case, dissimulation is not likely to increase attitude accessibility to the same extent as truthful attitude expression.

To summarize, we propose that the repeated accessing of true attitudes that is necessitated by repeated dissimulation acts towards increasing attitude accessibility in general. However, this effect may be diluted because of the conflicting influence exerted by the additional link created between the object and the false attitude. Although the strength of the original attitude-object link should eliminate this effect for strong attitudes, the dilution effect should be observable for weak attitudes. Experiment 1 tests this proposition.
EXPERIMENT 1: MODERATING EFFECT OF INITIAL ATTITUDE STRENGTH

This experiment examines the effects of attitude dissimulation on attitude accessibility of brands toward which attitudes are strongly versus weakly held. We compare the time taken to report true attitudes for brands toward which participants hold strong versus weak attitudes under three conditions -- repeated expression of true attitudes, repeated expression of false attitudes, and no prior attitude expression. We expect an interaction between attitude strength and attitude expression on the key dependent variable of attitude accessibility. Specifically, attitude dissimulation should increase attitude accessibility relative to control to the same extent as truthful attitude expression for brands toward which attitudes are strongly held, but not for brands toward which attitudes are weakly held.

Seventy-seven undergraduate students participated in the 2 x 3 experiment which was designed so that brand attitude strength (strong versus weak) and attitude expression (true vs. false vs. control) were manipulated within-subjects. We created three sets of brands consisting of five strong attitude and five weak attitude brands in each set. Following Fazio et al. (1989), we classified brands as evoking a strong attitude or a weak attitude on the basis of time taken to express true attitudes toward a set of brands in a pretest. To manipulate attitude expression, participants repeatedly expressed true attitudes towards brands in one set, false attitudes towards brands in the second set, and no attitudes towards brands in the third set which served as a control. The sets were counterbalanced using a digram-balanced latin square design. Participants were randomly assigned to one of the resulting three sets to ensure that each set served as the true, false or control set an equal number of times.

Stimuli Selection Pretest

Forty students participated in the pretest in groups of 3 to 5. They were informed that they were participating in a computerized study of brand attitudes, as part of which they would have to provide evaluative responses to a set of brand names that would appear on the computer screen. Participants were told that each time a brand name appeared on the screen, they should hit the key labeled ‘Like’ (the / key) or the key labeled ‘Dislike’ (the z key) depending on whether they liked or disliked that brand. It was emphasized that both speed and accuracy were extremely important in this task. Ten practice trials were included to
familiarize participants with the task. Participants then responded ‘Like’ or ‘Dislike’ to 184 brands in different product categories. Next, participants were given a questionnaire where they rated each of the brands on a 5-point brand attitude scale (1 = dislike very much, 5 = like very much) and a 5-point brand familiarity scale (1 = extremely unfamiliar, 5 = extremely familiar).

The thirty brands to which the average response time was the fastest (i.e., the strong attitude brands) and the thirty brands to which the average response time was the slowest (i.e., the weak attitude brands) were short listed for consideration. Fifteen brands from each shortlist were selected if (1) they were liked, and if (2) they were familiar (i.e., means above the midpoint of 3). Three sets were created with each containing five strong and five weak brands so that the three brand sets were equally liked ($M$’s = 3.24, 3.32 and 3.37, $F(2,76)$ = 2.4, $p > .05$). It was not possible to equate liking of strong and weak brands and the final set of 15 strong brands were liked more than the 15 weak brands ($M$’s = 3.43 versus 3.19; $F(1,38)$ = 11.42, $p < .01$). The effect of brand liking was controlled statistically in the main experiment.

**Main Experiment Procedure**

Participants were told that the research study consisted of four separate experiments. To distract participants from the true purpose of the experiment, they were told that experiments 2, 3, and 4 (phases 2, 3, and 4 below) involved examining the effects of subliminal noise on task performance (cf. Maio and Olson 1995). They were informed that a special speaker installed in the computer would play subliminal noise at various points during the second, third and fourth studies and that they would be unable to hear this noise.

**Phase 1: Initial attitudes.** Participants were told that this was a study about their opinions of various brands and they rated all thirty brands on liking scales (anchored at 1 = dislike very much and 5 = like very much).

**Phase 2: Manipulation.** Participants then went through the manipulation of repeated attitude expression where they expressed true attitudes toward ten of the thirty brands ten times each and false attitudes toward another ten of the thirty brands ten times each. They were told to respond as quickly and accurately as possible. Instructions to provide true or
false attitudes were presented along with brand names on the computer screen, one at a time, and participants pressed the key labeled ‘Like’ or the key labeled ‘Dislike.’ For example, if the word ‘False’ appeared along with a brand that participants actually liked, they pressed the ‘Dislike’ key.

As described in the experiment overview, the sets of brands were counterbalanced across participants. One-third of the participants expressed true attitudes toward one of the three sets and false attitudes toward another of the three sets with the third set serving as a control toward which they did not express any attitudes. The brands within the two assigned sets for each participant were combined and presented in random order. There were ten blocks of presentation of the twenty brands. Within each block the twenty brands were presented in a random order and participants expressed true attitudes toward ten brands and false attitudes toward ten brands. Thus, each participant expressed his or her true or false attitudes on 200 trials.

Phase 3: Dependent measures. As in phase 2, participants were asked to respond as quickly and accurately as possible by pressing the key labeled ‘Like’ or ‘Dislike.’ They were told that they should express their true attitudes toward all the brands in this study. After responding to ten practice brands, participants were presented with the thirty brands, one at a time, on the computer screen and pressed ‘Like’ or ‘Dislike’ based on their true attitudes toward the brand. Their responses and their response times were recorded by the computer. This ended the computer portion of the experiment.

Phase 4: Final attitudes. Participants were then told that the experimenters were interested in the effects of subliminal noise on brand judgments and they filled out the same liking scales as in phase 1. This measure was taken to check whether the attitude expression manipulation led to a change in attitudes. In addition, they filled out a familiarity scale anchored at 1 = extremely unfamiliar with brand and 5 = extremely familiar with brand.

Results

The data for each participant was aggregated across the five strong and five weak brands within each attitude expression set (true, false, control). All analyses were conducted
using a 2 x 3 within-subjects design with Attitude Strength (strong vs. weak) and Attitude Expression (true vs. false vs. control) serving as factors.

**Manipulation and confounding checks.** Comparison of the like/dislike responses in the manipulation phase with the responses in the dependent variable phase confirmed that participants followed attitude expression instructions. The majority of each participant’s responses in the manipulation phase were the same as (opposite of) the responses in the dependent measures phase when participants were asked to express true (false) attitudes. Confounding checks revealed that strong and weak brands were reassuringly rated to be equally familiar ($M$'s: 3.65 vs. 3.61, $p > .9$). However, as in the pretest, strong brands were liked more than weak brands (in phase 1, $M$'s: 3.43 vs. 3.06; $F(1,69) = 75.76$, $p < .01$). To control for this confound, brand liking is used as an additional predictor in the main analyses of attitude accessibility.

To determine whether attitude expression caused attitude change, the absolute difference in liking ratings collected in Phase 1 versus Phase 4 was calculated for each participant. This change variable was then subjected to a 2 (strong vs. weak) x 3 (true vs. false vs. control) within-subjects ANOVA. The only significant effect obtained was a main effect for Attitude Expression ($F(2,138) = 4.36$, $p < .05$). Pairwise comparisons were conducted (collapsing across the strength factor) and revealed that attitudes changed more when attitudes had been expressed truthfully versus not expressed at all ($M$’s: .26 vs. .19; $t(69) = 2.62$, $p < .05$). Attitudes also changed more when attitudes had been expressed falsely versus not expressed at all ($M$’s: .25 vs. .19; $t(69) = 2.46$, $p < .05$). Means in the truthful expression condition did not differ from those in the false expression condition ($t < 1$). Because attitude expression has a significant effect on attitude change, it is possible that the effects of attitude expression on attitude accessibility might be accounted for by their effects on attitude change. Attitude change is included as a covariate in the analysis of response times to control for this possibility.

**Attitude accessibility.** Support for our proposition that initial attitude strength moderates the effects of attitude dissimulation would be revealed in a significant interaction effect. Specifically, expressing false attitudes toward strong attitude brands should make true
attitudes toward these brands as accessible as expressing true attitudes; truthful and false expression should increase accessibility relative to the control condition. For weak attitude brands, expressing true attitudes should increase attitude accessibility relative to control more than expressing false attitudes.

Most participants took approximately 900 milliseconds to respond and none of the responses were greater than 1600 milliseconds or less than 500 milliseconds. All responses were therefore retained for the analyses. Mean latencies are in Table 1.

[Insert Table 1 about here]

A 2 x 3 within-subjects ANOVA on the response times revealed a main effect for attitude strength (F(1,76) = 54.47, p < .01), such that response times toward strong attitude brands were faster than toward weak attitude brands. This finding confirmed the validity of our manipulation of initial attitude strength. A significant main effect was also obtained for attitude expression (F(2,152) = 34.49, p < .01). These main effects were qualified by the hypothesized significant interaction (F(2,152) = 3 78, p < .05). For strong attitude brands, follow-up contrasts revealed that participants were faster at expressing attitudes that they had repeatedly lied about (M = 908 ms) or truthfully expressed (M = 865 ms) than at indicating attitudes they had never previously expressed (M = 1011 ms; t(76)=3.46, p < .01 and t(76)=4.95, p < .01 respectively). Response latencies for falsely versus truthfully expressed attitudes did not differ significantly (t(76) = 1.59, p > .1).

For weak attitude brands, contrasts with the control condition revealed the same results. Repeatedly expressing false attitudes resulted in greater accessibility of true attitudes compared to the control condition (M's = 1027 ms vs. 1219 ms; t(76) = 4.96, p < .01). Repeated expression of true attitudes also resulted in greater accessibility of true attitudes compared to the control condition (M's = 950 ms vs. 1219 ms; t(76) = 7.09, p < .01). However, unlike in the strong attitude brands case, there was a significant difference between response times in the true versus false expression conditions. Participants were faster at expressing attitudes that they had truthfully expressed compared to attitudes that they had lied about (M's: 950 ms vs. 1027 ms; t(76) = 2.21, p < .05). These results indicate that, in general, attitude dissimulation increases attitude accessibility relative to a control condition;
however this effect is greater for strong attitude brands compared to weak attitude brands. Analyses of logarithmic transformations of the response times (to reduce skewness in the data) provided the same results as above.

Recall that attitude change in the attitude expression and attitude dissimulation conditions differed from attitude change in the control condition. However, attitude strength and attitude expression did not have a significant interaction effect on attitude change. This makes it unlikely that the interaction effect observed on attitude accessibility could be explained by the effects of the two independent variables on attitude change. We further examined whether the effects of attitude dissimulation on attitude change are related to its effects on attitude accessibility by including attitude change (the absolute value of the difference in attitude scores in phase 1 versus phase 4) as a covariate in an analysis of covariance. The analysis was performed across all trials of all participants (each trial served as one observation) with response time as the dependent variable and attitude strength and attitude expression conditions as between-subjects independent variables. The attitude change score was not a significant covariate (F(1,2082) = 1.29, p > .25) and the interaction between attitude strength and expression remained significant. Thus, we can rule out the interpretation that the effects of attitude dissimulation and expression on attitude accessibility can be accounted for by their effects on attitude change.

Does attitude strength moderate the attitude dissimulation and attitude accessibility relationship or is attitude strength confounded with attitude extremity? To examine this possibility we included brand liking (collected in phase 1) as a predictor in the model using each trial as a single observation. Response times served as the dependent variable in a regression analysis and attitude strength, brand liking, and attitude expression (contrast coded as two dummy variables) and all two-way interactions were included in the model. All main effects were significant (p's < .05) as was the interaction between attitude strength and one of the dummy variables representing attitude expression (p < .05). The interaction between liking and the dummy variables representing the three attitude expression conditions was not significant (p's > .5). Thus, attitude strength rather than extremity appears to moderate the effect of attitude dissimulation on attitude accessibility.
Discussion

Results from this experiment are consistent with previous research (Maio and Olson 1995), and demonstrate that attitude dissimulation increases attitude strength, as revealed in greater accessibility of the underlying true attitude. We documented this effect in the product domain. Maio and Olson studied the effects of dissimulating about attitudes towards issues such as puppies, loneliness, rapists etc. People are likely to know exactly where they stand with regard to these issues, and consequently, dissimulation may be easier than in the case of products. It is reassuring to note, therefore, that the effects of dissimulation on accessibility were replicated in the product context, particularly for strong attitudes.

Our results also extend prior research by identifying a factor that moderates the relationship between dissimulation and attitude accessibility. Specifically, our findings reveal that the effect of dissimulation on attitude accessibility is significantly larger for attitudes that are already strong. While dissimulation increased accessibility for weak attitudes as well (as compared to a control), this increased accessibility was less than that produced by repeated truthful expression of weak attitudes. Experiment 2 was designed to provide further insight into this finding.

EXPERIMENT 2: ELIMINATING THE FAN EFFECT FOR WEAK ATTITUDES

Why does the effect of attitude dissimulation resemble the effect of truthful expression on accessibility for strong attitudes more than for weak attitudes? We reasoned that this difference is due to fact that dissimulation leads to a fan effect for weak attitudes, but not for strong attitudes. The accessibility of strongly held attitudes is less likely to be diluted by the additional link created by dissimulation, because the original link between the object and the true attitude is strong enough to ward off interference effects. For weak attitudes, however, the interference produced by the link associating the object with the false attitude, results in a dilution of accessibility.

This reasoning suggests that in order for dissimulation to increase accessibility for weak attitudes to the same extent as truthful expression, the fan effect produced by dissimulation has to be eliminated. We suggest that such elimination will result if people
elaborate on their true attitudes at the time of dissimulation. Elaboration should result in an increase in the strength of the link between the attitude object and the true attitude (Petty and Cacioppo 1986). In turn, increased strength of the link will aid in countering possible interference from the new link created by dissimulation.

Research on the associative network model suggests another way by which such elaboration should serve to counter the fan effect. Researchers have found that the fan effect can be eliminated when additional items of information learned are related back to the previously learned information (Anderson 1983; Smith, Adams and Schorr 1978). Drawing on these findings, we suggest that elaborating on true attitudes at the time of dissimulation should reconcile the different links associated with the attitude object, thus mitigating against possible interference effects.

In sum, even for weak attitudes, it should be possible for dissimulation to produce an improvement in attitude accessibility equivalent to that obtained by truthful expression, when dissimulation is accompanied by elaboration of the underlying true attitude. We test this prediction in Experiment 2.

**Experimental Design and Procedure**

Forty-six students participated in this 2 (attitude strength) x 3 (attitude expression) within-subjects experiment for partial course credit. The experiment replicated Experiment 1 except for additional elaboration instructions. In phase 2 of the experiment, participants were asked to elaborate on their true attitudes at the time of attitude expression regardless of whether they were asked to provide truthful attitudes or to dissimulate. Specifically, all participants were told to think carefully about how much they liked the brand before responding to the manipulation. As in Experiment 1, the main dependent variable was attitude accessibility as measured by response times to express true attitudes.

While strong attitude brands were included in the design to provide a replication of Experiment 1 findings, Experiment 2 focused on brands associated with weak initial attitudes. For weak attitude brands, in contrast to Experiment 1 findings, we predicted that dissimulation (when accompanied by elaboration) would produce increases in accessibility that would be equivalent to that produced by truthful expression. This prediction calls for a
comparison of accessibility levels in the dissimulation-plus-elaboration condition with the truthful expression condition. However, the within-subjects nature of our design dictated that, in the interest of consistency, participants be asked elaborate on true attitudes in all conditions -- thus, the dissimulation-plus-elaboration condition was actually compared with a truthful expression-plus-elaboration condition. We note that explicit instructions to elaborate should, if anything, facilitate attitude accessibility in the truthful expression condition (cf. Zanna et al. 1994). Thus, producing equivalent levels of accessibility in the dissimulate-plus-elaborate and truthful expression-plus-elaborate conditions actually provides a stronger test of our hypothesis.

**Results**

Data analyses followed the same pattern as in experiment 1. Preliminary analyses confirmed that participants followed instructions. As in experiment 1, mean level of attitude change (the absolute value of the difference in each participant’s attitude rating) was subjected to a 2 (strong vs. weak) x 3 (true vs. false vs. control) within-subjects ANOVA. This time none of the effects was significant, making it unlikely that the observed effects of attitude expression on attitude accessibility can be explained by their effects on attitude change.

**Attitude accessibility.** Given that participants were instructed to always elaborate on true attitudes, support for the proposed mechanism underlying dissimulation effects would be revealed by a significant main effect for attitude expression. For both strong attitude and weak attitude brands, truthful and false attitude expression should lead to more accessible attitudes than no attitude expression.

First, we examined the distribution of response times for outliers. One participant was dropped from the analyses because of extremely high response times. Mean latencies are in Table 2.

[Insert Table 2 about here]

As a confirmation of the attitude strength manipulation, a 2 x 3 within-subjects ANOVA on the response times revealed a main effect for Attitude Strength (F(1,44) = 61.16, p < .01), such that response times toward strong attitude brands were faster than toward weak
attitude brands. The hypothesized significant main effect was also obtained for Attitude Expression ($F(2.88) = 17.96, p < .01$). However, the interaction between the two factors was also significant ($F(2.88)=3.32, p < .05$). For strong attitude brands, follow-up contrasts predictably revealed that participants were faster at expressing attitudes that they had repeatedly lied about ($M = 858$ ms) or truthfully expressed ($M = 794$ ms) than at indicating attitudes they had never previously expressed ($M = 926$ ms; $t(44)=1.93$, $p < .06$ and $t(44) = 4.70$, $p < .01$ respectively). Unexpectedly, however, response latencies for falsely versus truthfully expressed attitudes also differed significantly ($t(44) = 2.47$, $p < .05$). The means reveal that attitudes that had been truthfully expressed were more accessible than attitudes that had been falsely expressed. However, the finding that truthful and false expression result in more accessible attitudes than no expression replicates Experiment 1.

For weak attitude brands, contrasts with the control condition revealed that repeatedly expressing false attitudes resulted in greater accessibility of true attitudes compared to the control condition ($Ms = 949$ ms vs. 1146 ms; $t(44) = 4.88$, $p < .01$). Repeated expression of true attitudes also resulted in greater accessibility of true attitudes compared to the control condition ($Ms = 965$ ms vs. 1146 ms; $t(44) = 3.32$, $p < .01$). Importantly, in contrast with findings from experiment 1, there was no significant difference between response times in the true versus false expression conditions. Participants were equally fast at expressing attitudes that they had truthfully expressed compared to attitudes that they had lied about ($Ms = 965$ ms vs. 949 ms; $t(44)<1$). These results indicate that instructions to elaborate on true attitudes eliminates the differential effects of truthful expression and dissimulation on attitude accessibility of weak attitude brands. Reanalyses of response times using logarithmic transformations confirmed these results.

Although attitude change was not affected by attitude expression, we included the absolute value of attitude change as a covariate in an ANOVA across all trials of all participants (each trial served as one observation) to ensure that the effects of attitude expression on accessibility could not be accounted for by their effects on attitude change. Response times served as the dependent variable and attitude strength and attitude expression as between-subjects independent variables. The attitude change score was a significant
covariate \((F(1,1366) = 6.04, \ p < .05)\). However, the main effects of attitude strength and attitude expression remained significant \((p's < .01)\). Thus, we can rule out this alternative explanation for the results.

**Discussion**

This experiment differed from Experiment 1 in one significant respect in that participants were instructed to elaborate on their true attitudes at the time of repeatedly expressing true or false attitudes. Results replicate those of Experiment 1 in the case of strongly held attitudes such that attitude dissimulation increased attitude accessibility. More importantly, results depart from those of Experiment 1 in that weakly held attitudes displayed the same pattern as strongly held attitudes. Asking participants to elaborate on true attitudes at the time of dissimulating increased attitude accessibility of weakly held attitudes to the same level as that created by repeated truthful expression. This finding is consistent with the explanation we offered earlier for the differential effects of dissimulation on strong and weak attitudes. We proposed that dissimulation was less successful in increasing true attitude accessibility for weak attitudes, because the fan effect created by dissimulation is more likely to cause interference for weak attitudes as compared to strong attitudes. Thus, the fan effect has to be countered in order to increase the facilitating effect of dissimulation on accessibility for weak attitudes. The use of elaboration instructions should accomplish this, both by strengthening the original link to the true attitude, and also by reconciling the different links emanating from the attitude object (Anderson 1983). Our results clearly support this argument, and highlight a mechanism by which dissimulation can increase accessibility of a weakly held attitude to the same levels as truthful expression.

While not the focus of this experiment, the finding that instructions to elaborate on strong attitudes increases attitude accessibility more in the truthful expression condition compared to the dissimulation condition was unexpected. One possible explanation for this finding relates to the effects of thought suppression (Wegner 1994). Particularly in the case of strong attitudes, it seems plausible that the act of dissimulation involves some degree of suppression of the underlying true attitude, which gets spontaneously activated on exposure to the attitude object. According to the principles of thought suppression, such a process
would also result in heightened elaboration of the true attitude, and a subsequent increase in attitude accessibility. Thought suppression, therefore, is a possible contributory factor, (as Maio and Olson also acknowledge), to the facilitating effects of dissimulation on the accessibility of strongly held attitudes. If so, the explicit elaboration instructions that were given to participants in Experiment 2 would act against suppression because participants in the dissimulation condition were explicitly asked to think about their true attitudes and did not need to suppress them. Thus, while dissimulation would still result in increased accessibility as compared to the control condition, the increase in accessibility obtained may no longer be equivalent to that obtained in the true expression condition. This is especially likely if we assume that the elaboration that arises from an attempt at suppression can be of a stronger nature than explicit elaboration (Wegner 1994). Such an explanation is, of course, a speculative one, and awaits further research.

Apart from this discrepancy, the finding that both repeated dissimulation and truthful expression can increase attitude accessibility relative to a control condition for strong attitudes represents a replication of Experiment 1 findings. While such replication is reassuring, our primary focus is on the effects of dissimulation for weak attitudes. Apart from the theoretical difference between strong and weak attitudes that elicits differential dissimulation effects, there is also a practical reason for this focus. Specifically, attitudes towards products are often held weakly. This is particularly true of attitudes towards unfamiliar brands and of attitudes created by advertising (versus those created by direct experience; Berger and Mitchell 1989) Thus, an investigation of the impact of dissimulation on attitude strength for weak attitudes carries particular significance in the consumer context.

Several researchers have examined ways of increasing attitude strength for such weakly held brand attitudes (Berger and Mitchell 1989; Haugtvedt et al. 1994; Krishnan and Smith 1998; Sengupta et al. 1997). Rather than simply looking at the effects of their manipulations on attitude accessibility, these researchers have typically focused on strength-related consequences such as attitude-behavior correspondence (Berger and Mitchell 1989; Krishnan and Smith 1998) and attitude persistence (Haugtvedt et al. 1994; Sengupta et al.
In line with this research, Experiment 3 examines the effects of dissimulation on such consequences of attitude strength in the context of weakly held attitudes.

**EXPERIMENT 3: CONSEQUENCES OF ATTITUDE STRENGTH**

Experiments 1 and 2 investigated the impact of attitude dissimulation on attitude accessibility, which is commonly thought of as an operational measure of attitude strength. For both theoretical and practical reasons, however, it would be desirable to examine other indicators or consequences of attitude strength. Various aspects of attitudes such as accessibility, conviction, centrality, importance and intensity have all been posited to operationalize attitude strength (Eagly and Chaiken 1993). In a general sense, all these dimensions differentiate attitudes that are stable and consequential from those that are not. However, Krosnick et al (1993) used multitrait-multimethod confirmatory factor analysis to assess the relations among these dimensions and found that not all dimensions are related. This conclusion mirrored that of Raden (1985) who suggested that low inter-correlations between these dimensions provides evidence that they cannot be used interchangeably as measures of attitude strength. In fact, Raden questioned whether attitude strength is a global, unitary property of attitudes. Given that different operationalizations of attitude strength may be tapping into different dimensions of attitude strength, examining the effects of dissimulation on operationalizations other than attitude accessibility would be useful. Such a triangulation would help increase our confidence in the posited nomological network.

**Attitude-Behavior Correspondence and Attitude Persistence**

Two consequences of attitude strength that are highly relevant in the marketing context are the link between attitudes and behavior (Berger and Mitchell 1989; Fazio et al. 1989) and attitude persistence (Haugtvedt et al. 1994; Sengupta et al. 1997). For many marketers, product purchase is the litmus test of the success of a marketing strategy. Clearly, therefore, the link between attitudes (such as those produced by advertising) and purchase behavior is of great significance. Further, in many marketing contexts, purchase behavior may lag significantly behind formation of an initial attitude, thus highlighting the importance
of a stable attitude. Thus, the impact of dissimulation can be of particular significance if these strength-related consequences are also affected by dissimulation.

Findings from our first two experiments have direct relevance to this issue because attitude accessibility has been shown to be related to both the attitude-behavior link and attitude persistence. Accessible attitudes are likely to exhibit a stronger link with behavior (Berger and Mitchell 1990; Fazio et al. 1983; Fazio and Williams 1986; Fazio et al. 1989), and also to remain more stable over time (Hodges and Wilson 1994; Fazio et. al 1992; Zanna, Fazio and Ross 1994). The explanation for both these effects relies on the idea that accessible attitudes are more likely to be spontaneously activated and retrieved from memory. Such retrieval guides perceptions of the attitude object, thus directing behavior in a manner consistent with the valence of the attitude. Similarly, accessible attitudes are more easily retrieved from memory after a period of time. Accordingly, the correspondence between initial and delayed measures of attitude is likely to be higher for accessible attitudes. On the other hand, salient environmental factors may have a greater impact on the delayed measure of less accessible attitudes than the original attitude itself.

Experiments 1 and 2 found evidence for the impact of various forms of attitudinal expression on attitude accessibility. Based on these findings, we expect that lying repeatedly about one’s attitudes should have the same facilitating effect on the attitude-behavior link, and attitude persistence, as repeated true expression of attitudes. In Experiment 3, however, instead of examining existing attitudes, we focus on new product attitudes induced by advertising. Attitudes produced in such a scenario are likely to be fairly weak, particularly in the context of single-exposure advertising for unfamiliar brands (Berger and Mitchell 1992). Our findings thus far suggest that for weak attitudes, dissimulation alone may not increase attitude accessibility to the same extent as truthful expression. Instructions to elaborate on true attitudes at the time of dissimulating are needed to achieve such an increase.

Based on the observed accessibility effects, we predict that compared to a control condition where attitudes are not expressed, truthful attitude expression and dissimulation-plus-elaboration of weak true attitudes will result in equivalent increases in attitude strength as indicated by (1) the correspondence between attitudes and behavior, and (2) the
correspondence between initial and delayed attitudes. Simple dissimulation (without elaboration) may increase the levels of these strength-consequences to some degree as compared to the control condition, but should have a smaller effect than truthful attitude expression.

**Experimental Design and Procedure**

We manipulated four levels of attitude expression (truthful expression, false expression, false expression-plus-elaborate on true and no attitude expression) in a between-subjects design. Three groups of participants were asked to repeatedly express true, false, or no attitudes. In addition, a fourth group was asked to elaborate on true attitudes at the time of providing false attitudes. We refer to these conditions as “true,” “false,” “control,” and “false-elaborate” respectively.

As explained earlier, we were particularly interested in the effects of dissimulation for weak attitudes. To ensure creation of weak attitudes, we induced low involvement conditions during message processing (Petty and Cacioppo 1986). Specifically, participants were told that the study concerned new candy bars being successfully marketed in a different country (Canada) and that these candy bars would not be available to the students any time soon. Participants were also told that their individual opinions would be aggregated with those of others (see Petty, Cacioppo and Schumann 1983) for similar low involvement instructions. Because lack of experience with the attitude object can contribute to weakly held attitudes (Fazio and Zanna 1978), we used Canadian brands (Crunchie, Caramilk, Mr. Big and Sweet Marie) pretested to be unfamiliar to the student participants in our experiment.

The stimulus booklet that was handed out to participants presented information about each candy bar on successive pages. Three types of information were presented for each bar: a) the ad slogan and some marketing information about the brand; b) a color picture of the candy bar; and c) information on the candy bar’s shelf life and availability in Canada. After exposure to the stimuli, participants received a second booklet that included the attitude expression manipulation and the measurement of dependent variables.

First, all participants completed two manipulation checks for message involvement. They were asked to indicate a) how carefully they had read the product information, and b)
how interested they were in reading the product information, on two semantic differential seven-point scales \((r = .60)\). Next, participants were exposed to the manipulation of attitude expression. In each of the three experimental conditions, participants were asked to express evaluations towards the four candy bars on five dichotomous scales (like/dislike, bad/good, tasty/not tasty, favorable/unfavorable, positive/negative). Following Berger (1992), participants were exposed to all four brands on a single page with the brands presented in a different order for each of the five dichotomous scales. This was done to prevent mere retrieval of previously provided responses from one attitude activation to the next.

In the “true” condition (truthful expression), participants saw the brand name and the slogan and expressed their true attitude five times towards each of the four brands on five different dichotomous scales (each scale on a different page). In the “false” condition (false expression), participants were told: “some research has shown that asking people to express the opposite of their true feelings is a good way of measuring how they really feel.” Based on this rationale, participants were instructed to express the opposite of their true feelings towards the four brands on each of the five scales above. Instructions in the “false-elaborate” condition (false expression-plus-elaboration) were exactly similar, with the addition that participants were asked to carefully think about their true feelings towards the brands before expressing the opposite of these feelings. Finally, participants in the control condition were given the slogan accompanied with the jumbled brand name and were asked to unscramble the brand names. All four brand names were presented on a single page and participants completed five different jumbles. This ensured that control participants were exposed to the brands the same number of times as participants in the experimental conditions, controlling for any differences that might arise from automatic attitude activation in the experimental conditions.

Participants then responded to three seven-point evaluation scales \((1 = \text{bad},\text{unfavorable, dislike; } 7 = \text{good, favorable, like})\) for each brand (Cronbach’s alphas > .80 for each brand) and then provided personal information. Finally, participants were told that promotional samples of the four candy bars would be available later, and that they should circle the name of the brand that they wanted to sample. This served as the measure of choice.
behavior. After two days, participants unexpectedly received the brand names and slogans and were again asked to provide evaluations on a similarly worded set of three evaluation scales (Cronbach’s alpha > .80 for each brand), anchored this time at -4 and +4. By using differently anchored scales at immediate and delayed measurement of attitude, we hoped to prevent an affect referral phenomenon whereby participants would simply retrieve initial evaluations at delay. The delay period of two days was chosen on the basis of similar delays used in other persistence research (e.g., Hagtvedt and Strathman 1990).

Results

**Manipulation Check.** Levels of involvement were relatively low as desired (M = 4.00 on a 7-point scale).

**Attitude-behavior correlation.** The brand selected by each participant served as the measure of brand choice. Following the procedure used by Fazio et al. (1989; see also Berger 1992), we first computed the attitude-behavior Spearman correlation for each brand, pooled across all participants within each of the four conditions. Four correlation coefficients (one for each brand) were thus obtained in each condition. Each of these correlation coefficients was then converted to a Fisher z-score, and treated as a separate observation. Based on these data, ANOVA was used to test for differences across conditions, with brand as the unit of analysis. Given the low number of observations in each condition, non-parametric ranks-sum tests were also carried out for all the correlations analyses reported here. In each case, results from the rank-sum test corroborated the results from the ANOVA.

Results from the ANOVA revealed a marginally significant effect for the four level factor of Attitude Expression (F(3,12) = 2.19, p < .10). Planned contrasts were carried out in order to test our specific predictions. These contrasts showed that the attitude-behavior correlation was significantly higher in the true condition versus the control condition (r’s: .48 vs. .33, F(1,12) = 5.57, p < .05) and in the false-elaborate condition versus the control condition (r’s: .45 vs. .33, F(1,12) = 3.76, p < .05). However, the correlation in the false condition did not differ from that in the control condition (r’s: .39 vs. .33, F(1,12) = 1.10, p > .3). Thus, a significant increase in the attitude-behavior link (compared to the control condition) was only obtained by repeated true expression, or by dissimulation when
accompanied by elaboration (see Table 3 for average correlations). Dissimulation by itself was not enough to produce this increase. This result is consistent with the effects reported earlier for the impact of attitude expression on attitude accessibility of weakly held attitudes.

[Insert Table 3 about here]

**Attitude persistence.** We computed the correlation between initial attitudes and attitudes measured after a two-day delay (see Hodges and Wilson 1993 for a similar measure of attitude persistence). Based on the same technique discussed above, we used ANOVA to compare differences in correlations across conditions. The overall effect of Attitude Expression was significant ($F(3,12) = 4.00$, $p < .05$), and the pattern of correlations showed that attitudes were more persistent in all experimental conditions compared to the control condition ($r$'s: true = .77, false-elaborate = .79, false = .80, control = .55; all contrasts with control $p$'s < .05). Further, none of the three experimental conditions differed from one another. Again, results from non-parametric tests converge with those reported above.

We also computed the absolute value of the difference between initial and delayed attitudes in each condition as another measure of attitude persistence – the lower the difference score, the greater the persistence (Wilson, Kraft, and Dunn 1989). Because of the difference in scales used to collect evaluations at time 1 and time 2, attitude scores were standardized for each brand and attitude expression condition for both immediate and delayed measures. ANOVA on the difference scores provides completely consistent results with the correlations reported above. The effect of Attitude Expression was significant ($F(3,12) = 12.77$, $p < .001$). More importantly, planned contrasts showed that attitude change was greater (and attitude persistence was therefore lower) in the control condition compared to the other three conditions ($M$'s: control = .77, true = .49, false-elaborate = .48, false = .52; all contrasts with control $p$'s < .05). The effects of dissimulation on persistence differed from its effects on attitude-behavior correspondence in that simply dissimulating about one’s attitudes led to a significant increase in persistence, but not in the attitude-behavior correlation.

**Discussion**

Results on two important strength-related consequences provide broad converging evidence for findings from the two previous experiments regarding the effects of attitude
expression on attitude accessibility. For attitude-persistence as well as the attitude-behavior link, we found that repeated true expression, and dissimulation when accompanied by elaboration on true attitudes, resulted in significant (and equivalent) increases as compared to a control group. Moreover, our earlier findings for accessibility had led us to predict that for weak attitudes, such as the ones studied in this experiment, repeated dissimulation alone might not be sufficient to produce an increase in attitude strength (and thus, in strength-related consequences) as compared to the control. This prediction was supported for the attitude-behavior link: although the pattern of results tended towards a greater correlation for the simple dissimulation condition (versus the control), this difference was not significant. For attitude persistence, however, we found that dissimulation in itself was enough to produce a significant increase, comparable to that obtained in the other two experimental conditions.

Experiment 3 findings not only provide additional support for the premise that dissimulation can increase the strength of the underlying attitude, they also highlight the importance of this effect. Clearly, if lying about one’s feelings serves to make them endure longer, lying may be more consequential than is commonly supposed. Similarly, the findings that dissimulation under certain contexts (i.e., when accompanied by elaboration) can increase attitude-behavior correspondence suggests that lying can lead to actual changes in one’s behavior. Further, unlike research which suggests that any changes in attitudes and behavior tend to be consistent with the expressed opinion (Bem 1972; Salancik and Conway 1972) we find that such changes actually occur in the direction opposite to the false expression.

One possible explanation of this discrepancy focuses on the difference between different consequences of attitude strength. While diverse strength consequences such as attitude-behavior correspondence, attitude resistance, and attitude persistence share some common antecedents (e.g., degree of elaboration: Petty and Cacioppo 1986), several researchers have found evidence for distinguishing between these constructs (Haugtvedt et al. 1994; McGuire and Papageorgis 1961; Raden 1985). For example, Haugtvedt et al. (1994) found that the use of repetition with variation in an advertising context was successful in
increasing attitude persistence but not attitude resistance. Similarly, in their classic study, McGuire and Papageorgis (1961) demonstrated that repeatedly associating a belief with a credible source (e.g., parents telling children to brush their teeth regularly) would lead to a persistence of that belief but would not ensure resistance to an attack. These findings lead to the speculation that different consequences of strength can be placed on a strength continuum. For example, attitudes that are resistant to an attack may be thought of as being stronger than attitudes that are persistent but not resistant. An analogous case might be made for the relationship between the attitude-behavior link and attitude persistence, such that the former may be viewed as being a higher-order indicator of attitude strength than the latter. Such an argument makes intuitive sense. While an initial evaluation might well correspond with another evaluation (albeit delayed), predicting behavior from evaluations may be more problematic (Wicker 1969). Thus, it might be easier to increase attitude persistence than the correspondence between attitude and behavior. Accordingly, even the relatively smaller increases in accessibility that are produced by simple dissimulation (versus dissimulation-plus-elaboration) may be sufficient to yield increased persistence, but may not increase the strength of the link with behavior.

GENERAL DISCUSSION

This research examines a counter intuitive but compelling proposition, namely that dissimulation may, under certain conditions, serve to strengthen prior beliefs rather than to undermine them. We extend prior work on attitude dissimulation by examining the issue in a different domain, that of product attitudes, and by studying how and why initial attitude strength moderates the effects of dissimulation on attitude strength. We also examine multiple attitude relevant dependent measures in addition to attitude accessibility. Below, we provide an overview of our results and integrate the findings in a general attitudinal framework. We then acknowledge limitations in our research and discuss emerging opportunities for future research.
Key Findings

Experiment 1 examined a boundary condition for the effect of attitude dissimulation on attitude accessibility. Results suggest that both truthful and false attitude expression increase the temporary accessibility of strong attitudes (i.e., attitudes that are chronically accessible) to the same extent. However, truthful attitude expression has a greater impact on temporary accessibility of weak attitudes compared to false attitude expression. Automatic activation of attitudes on exposure to the attitude object alone cannot explain these results. Bargh et al (1992) have shown that automatic attitude activation is a fairly general phenomenon that occurs for most evaluations stored in memory. If such an automatic activation explanation were to be invoked, it would imply that both strong and weak attitudes should benefit to the same extent from activation at the time of dissimulation. Our finding that strong attitudes benefit more than weak attitudes lends support to the premise that conscious access of true attitudes at the time of dissimulation underlies the effect of attitude dissimulation on attitude accessibility.

We suggest that dissimulation produces a greater accessibility effect for strong rather than weak attitudes because the fan effect created by dissimulation is likely to detract from the accessibility for the latter. Results from Experiment 1 are consistent with this proposition. Experiment 2 further reinforces this argument by examining demonstrating that comparable improvements in accessibility can be obtained for dissimulation and truthful expression under conditions that mitigate against interference due to the fan effect. Specifically, we show that elaborating on true attitudes at the time of dissimulation—a manipulation that should serve to counteract the fan effect—increases accessibility to the level produced by truthful repeated expression.

Thus, our investigation into the moderating role of initial attitude strength on the effects of dissimulation helps to further clarify the process underlying these effects. Further, our findings for weak attitudes extend earlier findings (Maio and Olson 1995) which focused only on the effects of dissimulation in the case of strong attitudes. The focus on weak attitudes is of particular significance in the consumer context, especially for attitudes towards new products, and for those created by indirect influences such as advertising.
In line with this focus, Experiment 3 further explored the effects of dissimulation for weak attitudes. While accessibility is the preferred operationalization of attitude strength, prior research has pointed out that attitude strength is a multi-dimensional construct (Krosnick et al. 1993; Raden 1985). It is therefore important to measure the impact of dissimulation on other indicators of attitude strength apart from attitude accessibility. The effects of attitude dissimulation may be particularly insidious given that the strength of an attitude can dictate how well the attitude corresponds with actual behavior (Fazio et al. 1989), and also how well it endures over time (Zanna et al. 1992). Experiment 3 directly tested these strength-related consequences in the context of weak attitudes, and demonstrated that attitude dissimulation can have serious consequences for attitude persistence. When accompanied by elaboration on true attitudes, dissimulation can also have a significant impact on brand choice.

The broad convergence between the results from our three experiments is particularly reassuring given the different methods (response latency versus pen-and-paper) used across these experiments. The agreement between our findings is also significant given the multi-dimensional nature of attitude strength. The similar results obtained on different indicators highlight the reliability of our effects. Given the complex relationships between various antecedents and consequences of strength, one of the contributions of the current work lies in our investigation of multiple strength-related constructs (see also Haugtvedt et al. 1994; Krishnan and Smith 1998).

Limitations and Research Opportunities

One limitation of this research stems from discrepant findings regarding the effects of dissimulation on different operationalizations of attitude strength, such as the attitude-behavior link and attitude persistence. Dissimulation alone was sufficient to increase attitude persistence (vs. control) but additional elaboration on true attitudes at the time of dissimulation was required to increase attitude-behavior correspondence. We suggested that this discrepancy might be due to attitude-behavior link being a higher order indicator of attitude strength than attitude persistence. This explanation of our findings can only be of a speculative nature. The current research focused on examining the effects of attitude
dissimulation on attitude strength. We did not directly examine the effects of moderating accessibility on strength consequences; or the interplay between various consequences of attitude strength. This is an important limitation of our work.

Along the same lines, while the current research limited its attention to two major consequences of attitude strength, future research should also investigate a third strength-related consequence: attitude resistance. Resistance has been defined as the degree to which an attitude endures in the face of an attack. While some research suggests that consequences such as persistence and resistance share common antecedents (e.g., degree of elaboration: Petty and Cacioppo, 1986), other researchers have made the case that persistent attitudes may not always endure in the face of an attack (e.g., Haugevedt et al. 1994). Thus, while our findings indicate that dissimulation can increase attitude persistence, it would be interesting to examine whether a similar result can be obtained for attitude resistance as well.

Other limitations of our research also offer intriguing avenues for future exploration. For instance, it would be interesting to examine the specific process underlying dissimulation. While we agree with Maio and Olson (1995) that dissimulation is probably accompanied by an accessing of the true attitude, our research did not include measures that would tap into these processes. Future work in this area could include retrospective protocols that might provide insights into participants’ thoughts during the process of dissimulation. Such protocols could also help to identify whether dissimulation is accompanied by thought suppression (Wegner 1994). As we suggested, such thought suppression might be the a contributory factor to the observed effects of dissimulation in the case of strong attitudes.

Another limitation of our work has to do with the forced-nature of the dissimulation that we studied. It would be both interesting and practically relevant to investigate whether the current effects generalize to naturalistic lying contexts. As a first step, researchers might examine the antecedents of lying behavior in a consumer context. Clearly, dissimulation effects are more likely to be observed in situations that prompt deceptive behavior. Recent work in social psychology (DePaulo et al. 1996; Kashy and DePaulo 1996) has shown that people constantly lie to one another in everyday social interactions, because of motivations as
diverse as impression management and a desire to help others. Future work should aim at integrating the antecedents of lying with its consequences.

Finally, while the current research examines the effects of dissimulation from a cognitive perspective, it would be interesting to examine possible motivational antecedents of the effects of dissimulation. In this regard, research on the effects of psychological reactance (Brehm and Brehm 1981) is of particular interest. Reactance theory suggests that restricting a person's freedom of action will lead to an increased motivation to engage in that particular action. Thus, being forced to lie about one's true attitudes could well increase the motivation to act in a manner consistent with that attitude.

While this perspective would be consistent with some of the results observed here, it seems unlikely that such a motivation was operative in the current research. For example, in Experiment 3, participants were told that they were being asked to express the opposite of their true attitudes because “some research has shown that asking people to express the opposite of their true feelings is a good way of measuring how they really feel.” Such instructions do not seem to be restrictive of participants' freedom of action. However, in a more naturalistic lying context (e.g., being forced to lie about the tie your boss is wearing) may arouse the motivation to act in a direction opposite to the lie. In such contexts therefore, the effects of dissimulation may have motivational as well as cognitive antecedents. Conversely, the effects on attitudes and behavior that have been documented in the reactance literature (Brehm and Brehm 1981) could well be partly due to cognitive antecedents, as opposed to arising from purely motivational reasons. As the current research has shown, expressing a false opinion entails accessing one's true opinion; the increased accessibility of the true opinion that results can explain the changes that result in delayed attitudes and eventual behavior. Thus, these motivational and cognitive perspectives seem complementary to one another – future research could attempt to investigate the domains under which each of these factors is more likely to contribute to the effects of dissimulation.
FOOTNOTES

1 Suppression of true attitudes is less likely in the case of weakly held attitudes and therefore instructions to elaborate on true attitudes while dissimulating serve only to facilitate true attitude accessibility.
**TABLE 1**

**EXPERIMENT 1: ATTITUDE ACCESSIBILITY MEASURED BY RESPONSE TIMES TO REPORT TRUE ATTITUDES**

<table>
<thead>
<tr>
<th></th>
<th>True Expression</th>
<th>Dissimulation</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong Brands</td>
<td>865&lt;sup&gt;a&lt;/sup&gt;</td>
<td>908&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1011&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Weak Brands</td>
<td>950&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1027&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1219&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Note: Response times in milliseconds. Means in the same row with different superscripts are significantly different from each other at p < .05.
**TABLE 2**

EXPERIMENT 2: ATTITUDE ACCESSIBILITY AS MEASURED BY RESPONSE TIMES TO REPORT TRUE ATTITUDES

<table>
<thead>
<tr>
<th></th>
<th>True Expression</th>
<th>Dissimulation</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong Brands</td>
<td>794(^{a})</td>
<td>858(^{b})</td>
<td>926(^{c})</td>
</tr>
<tr>
<td>Weak Brands</td>
<td>965(^{a})</td>
<td>949(^{a})</td>
<td>1146(^{b})</td>
</tr>
</tbody>
</table>

Note: Response times in milliseconds. Means in the same row with different superscripts are significantly different from each other at p < .05.
**TABLE 3**

EXPERIMENT 3: ATTITUDE-BEHAVIOR CORRELATIONS AND ATTITUDE PERSISTENCE FOR WEAK ATTITUDE BRANDS

<table>
<thead>
<tr>
<th></th>
<th>True expression</th>
<th>False expression</th>
<th>False-plus-elaborate</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude-behavior</td>
<td>.48&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.39&lt;sup&gt;a,b&lt;/sup&gt;</td>
<td>.45&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.33&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Attitude change</td>
<td>.49&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.52&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.48&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.77&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Note: Attitude change is the absolute value of the difference between attitudes after a delay and initial attitudes: lower change is equivalent to higher persistence. Means in the same row with different superscripts are significantly different from each other at p < .05.
REFERENCES


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