

# Re-Inquiries

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## The Effect of Analyzing Reasons on the Stability of Brand Attitudes: A Reconciliation of Opposing Predictions

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Past research has shown that thinking of reasons as to why one likes or dislikes an object can disrupt attitude stability, even though other forms of effortful processing (such as that induced by high involvement) typically produce strengthening effects on stability. The current article addresses this dilemma by showing that, depending on specific theoretically derived moderating factors, reasons analysis can produce either a disruptive or a strengthening effect on attitude stability. Our findings help to resolve the conflict surrounding the effects of reasons analysis and also provide support for a construction-based match-mismatch account of the underlying process.

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**B**efore making a purchase decision, consumers often analyze why they like or dislike a particular brand. In this article, we examine the stability of such reasons-based judgments. This issue is of significance not only because of the practical importance of studying long-term effects but also because conflicting predictions can be formulated regarding the effect of reasons analysis on attitude stability. One prediction is that reasons analysis, because it produces heightened issue involvement (Alba, Marmorstein, and Chattopadhyay 1992), should enhance attitude stability, in line with the finding that greater involvement produces more effortful processing and thus greater stability (Petty and Cacioppo 1986). In a recent article, however, we reported find-

ings that were contrary to this expectation: participants asked to analyze reasons for their brand evaluations formed attitudes that were significantly less stable over time than the attitudes of respondents in a nonreasons control group (Sengupta and Fitzsimons 2000, experiment 3).

The current article seeks to resolve the dilemma surrounding these opposing predictions. In particular, we draw on a construction-based perspective of judgment formation (Payne, Bettman, and Johnson 1992) to identify conditions under which reasons analysis produces a weakening effect versus a strengthening effect on attitude stability, in comparison both to a nonreasons control group (experiment 1) and to a high-involvement group (experiment 2). By documenting theoretically informative boundary conditions for earlier findings, our results serve to clarify the mechanism underlying the effect of reasons analysis on attitude stability, and they also provide a resolution of the conflict existing in the literature.

### CONCEPTUAL BACKGROUND

Research in social cognition has reliably shown that analyzing reasons disrupts the link between stated preferences and subsequent choices (Wilson et al. 1984, 1989). Recent

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work in consumer research has extended this disruption effect to the domain of attitude stability. Specifically, Sengupta and Fitzsimons (2000) studied a context in which participants were provided with a mixture of verbal cues (i.e., information on product attributes) and visual cues (i.e., packaging) during initial attitude formation; as is often the case in a retail purchase context, only the visual package cue was made available at delay. Participants who analyzed reasons for their initial brand attitudes prior to reporting these evaluations (vs. a control group that was simply asked to evaluate the brand) displayed lower attitude stability over time, as indicated by a weaker link between initial and delayed judgments.

Two possible explanations can be put forth for this weakening effect of reasons analysis, each of which holds different implications for the robustness of the finding. One explanation, which is consistent with disruption findings having been obtained across a variety of contexts, is based on the premise that reasons analysis per se causes an intrinsic lowering in attitude strength. For instance, analyzing reasons for one's judgments has been shown to produce greater attitude ambivalence (Sengupta and Johar 2002; Tetlock 1983). It has also been argued that the task of analyzing reasons distracts respondents from focusing on their attitudes (Simonson and Nowlis 2000). Greater ambivalence and greater distraction are both consistent with an intrinsic weakening view of reasons analysis. Note that this reasons-intrinsic explanation argues that disruption is a function of reasons analysis in and of itself. Thus, it predicts that the lowered stability effect obtained by Sengupta and Fitzsimons (2000) should be robust across conditions—that is, it should be independent of other factors such as the type of cue reinstated at delay.

However, a different explanation (with very different implications for robustness) can also be offered for the disruption finding obtained by Sengupta and Fitzsimons (2000). This explanation rests on the premise that attitudes at any point in time are constructed afresh on the basis of contextual cues (Payne et al. 1992). Initial attitudes of control participants in the Sengupta and Fitzsimons study were likely to have been based predominantly on the visual cues provided, both because of the “picture superiority” effect (Houston, Childers, and Heckler 1987) and because the verbal information was specifically chosen to be fairly nondiagnostic. On the other hand, since verbal information typically possesses an advantage over visual information in terms of being verbalized as reasons (Schooler and Engstler-Schooler 1990), participants required to list reasons for their attitudes would tend to base these attitudes primarily on the verbal cues provided. While collecting delayed judgments five days later, however, only the visual cues (the package pictures) were reinstated for all respondents. Since a substantial interval had elapsed, retrieving initial attitudes would not have been an easy task. It is more likely that delayed judgments in both reasons and control conditions were constructed afresh on the basis of the externally available product information—that is, the visual cues. Given

such a construction scenario, the lower attitude stability obtained in the reasons condition is easily explained as a function of the “mismatch” between the cues guiding initial and delayed attitudes in that condition (verbal vs. visual cues), compared to the “match” between the cues guiding initial and delayed attitudes for the control condition (visual cues at both times).

## EXPERIMENT 1: DISRUPTION VERSUS STRENGTHENING

Experiment 1 tested these two competing explanations for the disruption effect by manipulating the information reinstated at delay (visual vs. verbal information). While the reasons-intrinsic account predicts uniform disruption irrespective of the reinstated information, the match-mismatch mechanism predicts a reversal of the disruption effect upon reinstatement of the original verbal information, since delayed attitudes will then be formed primarily on the basis of the verbal information, resulting in a greater “match” for reasons versus control conditions. In addition to supporting the match-mismatch mechanism, such a strengthening effect would take a step toward addressing the dilemma surrounding the opposing predictions for the effects of reasons analysis by showing that this type of processing can, at times, enhance attitude stability.

Experiment 1 also sought to provide support for the match-mismatch mechanism by showing that the hypothesized effects disappear under conditions inimical to the operation of this mechanism, which rests on the assumption that delayed attitudes are constructed primarily on the basis of the cues that are salient at delay. However, delayed attitudes may sometimes be based primarily on retrieved initial evaluations rather than being constructed afresh on the basis of temporarily salient cues. In such retrieval-friendly conditions—which should prevail, for instance, when the initial attitude is highly accessible and therefore easily retrieved at delay (Fazio 1995)—the match-mismatch account is less likely to be valid. Rather, a high degree of stability should obtain regardless of whether cues at delay match those responsible for initial attitude formation.

### Experiment 1: Overview and Design

One hundred and forty-seven undergraduate students participated in the study in exchange for partial class credit. A 2 (reasons task: reasons vs. control)  $\times$  2 (cue present at delay: visual vs. verbal)  $\times$  2 (accessibility of initial attitude: high vs. low) between-subjects design was used. Initial brand attitudes were measured following exposure to the stimuli, immediately after the reasons task. Following methods used in the attitude accessibility literature (Berger 1992; Fazio et al. 1986), initial attitudes were activated either five times (high accessibility) or only twice (low accessibility). Delayed brand attitudes were measured in another session held five days later, at which participants were exposed to either the original visual cues or the original verbal cues for all four brands. In order to facilitate a comparison of stability

results, the stimulus information was the same as that used by Sengupta and Fitzsimons (2000).

*Procedure.* Participants were told that they would take part in two unrelated studies, to be held in two sessions five days apart. In session 1, participants were presented with a short booklet. In the control conditions, the booklet instructed them to evaluate four brands of Canadian candy bars; in the “reasons” conditions, an additional instruction was included based on previous reasons research (Sengupta and Fitzsimons 2000; Wilson et al. 1993): “In order to prepare yourself to report your evaluation, please analyze why you feel the way you do about the candy bar as you look at the information provided. That is, go over in your mind what it is that makes you think that the candy bar is likable or dislikable. After you have examined the information, we will ask you to list your reasons for liking or disliking the candy bar.”

The booklet then provided a description of each brand of candy bar, including a visual cue (a color picture of the product package), as well as verbal cues comprising both attribute information (e.g., the bar’s shelf life) and the brand’s marketing history (e.g., details regarding its launch date). The verbal information was chosen to be fairly non-diagnostic, because the disruption effect is more likely to be observed under these conditions (see Sengupta and Fitzsimons 2000; also see Wilson et al. 1989). After examining the stimuli, participants who were assigned to the reasons conditions were asked to list their reasons for liking or disliking each candy bar. A clear assurance of anonymity was provided. Participants who were assigned to the control conditions were simply asked to list reasons related to their choice of university. Next, all participants were asked for their evaluations of the candy bars they had seen (time1 attitudes). In the high attitude accessibility conditions, they responded to five nine-point attitude scales for each candy bar, ranging from  $-4$  to  $+4$  (“very unfavorable/very favorable”; “very bad/very good”; “dislike very much/like very much”; “very distasteful/very tasty”; “unpleasant/pleasant”). In the low attitude accessibility conditions, participants responded to only two scales for each bar (“very unfavorable/very favorable” and “very bad/very good”).

Five days later, participants returned to take part in the second stage of the experiment. Depending on the cue reinstatement condition, they were presented with either only the visual information (the four package pictures) or only the verbal information from the first session (the marketing history and attribute information for each candy bar). All participants then completed a second set of attitude measures (time2 attitudes), consisting of two items per candy bar, each on a 1–7 scale, with endpoints “good”/“bad” and “like”/“dislike.”

## Results

Following the procedure used in past research that has examined the predictive ability of attitudes in the context of multiple brands, analyses were conducted by obtaining

four observations for each respondent, one for each brand (see Berger 1992; Sengupta and Fitzsimons 2000).<sup>1</sup> This data was examined in the context of the full  $2 \times 2 \times 2$  ANOVA. Attitude stability was analyzed by comparing the absolute difference of standardized attitude scores collected across the two sessions for each brand. The lower the absolute difference score, the higher the degree of attitude stability. A main effect of accessibility was obtained on this difference score: as expected, when initial attitudes were frequently activated (and therefore, more accessible) the difference score was lower ( $M_{\text{diff}} = 0.50$ ), and accordingly stability was greater, than when initial attitudes were less accessible ( $M_{\text{diff}} = 0.61$ ;  $F(1, 580) = 9.74, p < .01$ ).

Of more importance, this main effect was qualified by a three-way interaction ( $F(1, 580) = 15.44, p < .001$ ), which was further explored by examining the pattern of results within low versus high accessibility (see table 1 for means). Under low initial attitude accessibility, delayed attitudes should be constructed primarily on the basis of the cues available at delay. Consistent with the match-mismatch perspective, therefore, attitude stability should then be interactively affected by the mode of initial processing and the particular cues reinstated at delay, with a disruption effect (lower stability for reasons than for control) resulting for visual cue reinstatement and a reversal of the effect being observed for verbal cue reinstatement. As expected, the interaction between reasons task and reinstated cue was significant under low attitude accessibility ( $F(1, 580) = 17.44, p < .001$ ). Planned contrasts then revealed that when visual cues were reinstated, the degree of attitude stability was significantly lower for reasons ( $M_{\text{diff}} = 0.71$ ) versus control conditions ( $M_{\text{diff}} = 0.50, F(1, 580) = 5.30, p < .05$ ), thus replicating the disruption results obtained by Sengupta and Fitzsimons (2000). Importantly, however, when verbal cues were reinstated, this disruption effect was reversed: attitude stability was significantly greater for reasons ( $M_{\text{diff}} = 0.42$ ) versus control conditions ( $M_{\text{diff}} = 0.86, F(1, 580) = 25.42, p < .0001$ ).

In contrast, under high accessibility, delayed attitudes should be based largely on the retrieved initial attitude; accordingly, attitude stability is unlikely to be affected by the interaction between the reasons task and the reinstated cue. In support, analyses within high accessibility conditions revealed no interaction between reasons task and reinstated cue ( $F(1, 580) < 1, \text{NS}$ ). Further, planned contrasts within each type of reinstated cue showed that high attitude accessibility prevented disruption irrespective of the reinstated cue. In other words, attitude stability did not differ for reasons versus control conditions for the visual cue (reasons  $M_{\text{diff}} = 0.42$ , control  $M_{\text{diff}} = 0.38, F(1, 580) < 1, \text{NS}$ ) or for the verbal cue (reasons  $M_{\text{diff}} = 0.61$ , control  $M_{\text{diff}} = 0.51, F(1, 580) = 1.33, p > .20$ ).

<sup>1</sup>While this mode of analysis follows earlier research and allows for easier exposition of the findings, a  $2 \times 2 \times 2 \times 4$  analysis with brand as a within-subjects factor was also conducted, and it produced the same pattern of results.

**TABLE 1**  
EXPERIMENTS 1 AND 2: ATTITUDE STABILITY BY CONDITION

Processing mode	Verbal or visual time2 cue	High or low time1 attitude accessibility	Attitude difference <sup>a</sup> experiment 1	Attitude difference experiment 2 <sup>b</sup>
Control	Verbal	High	.51	.47
Control	Verbal	Low	.86	.59
Control	Visual	High	.38	.75
Control	Visual	Low	.50	.50
Reasons	Verbal	High	.61	.36
Reasons	Verbal	Low	.42	.41
Reasons	Visual	High	.42	.65
Reasons	Visual	Low	.71	.89
High involvement	Verbal	High	. . .	.55
High involvement	Verbal	Low	. . .	.87
High involvement	Visual	High	. . .	.64
High involvement	Visual	Low	. . .	.53

<sup>a</sup>Lower attitude difference scores indicate greater attitude stability.

<sup>b</sup>For experiment 2, "control" refers to low-involvement conditions.

## Discussion

Experiment 1 not only replicated the disruptive effect of reasons analysis on attitude stability but, more importantly, identified theoretically informative boundary conditions for this effect. Under conditions of low initial attitude accessibility, reinstatement of visual cues at delay produced disruption (cf. Sengupta and Fitzsimons 2000); however, reinstatement of verbal cues actually produced a strengthening effect—greater attitude stability was obtained for reasons versus control conditions. This reversal of the typical disruption finding addresses the dilemma as to whether reasons analysis should yield strengthening or weakening; further, it provides support for a construction-based match-mismatch explanation of the disruption effect rather than a reasons-intrinsic explanation (which argues that the disruption finding should generalize across the type of reinstated cue). Results in the high attitude accessibility conditions also provided support for the construction-based account by showing that disruption can be prevented when conditions are more conducive to a retrieval than to a construction process at delay.

Building on the match-mismatch thesis, experiment 2 sought to further clarify the conflict between the opposing effects that have been documented for two different types of effortful processing (reasons-based disruption vs. high-involvement strengthening) by directly comparing stability effects for these two processing modes. Of importance, in contrast to the construction-based stability mechanism offered here, the accepted mechanism for the heightened stability effect of high involvement rests on a retrieval process at delay. More elaborative processing (such as that produced by high involvement) is held to increase the accessibility of initial inputs at the point of delay, thus increasing the likelihood of retrieving and using these inputs during delayed evaluations (Haugtvedt et al. 1994; Sengupta, Goodstein, and Boninger 1997).

However, conditions at delay may not always favor a

retrieval process. Under the circumstances studied in experiment 1 (long time delay, portions of the product information available in the external context), a construction mode of judgment formation is more likely to hold sway. In such conditions, instead of assuming that high involvement is intrinsically associated with greater stability than is reasons analysis, the construction-based match-mismatch perspective suggests that the relative degree of stability for these two processing modes will depend on the extent to which reinstated cues at delay match those used to form initial attitudes.

## EXPERIMENT 2: REASONS ANALYSIS VERSUS HIGH INVOLVEMENT

In contexts such as that studied in experiment 1, in which visual information was designed to be more diagnostic/relevant to the product's merits than verbal information, the cues used to form initial attitudes should differ for reasons analysis versus high involvement. While reasons analysis should produce a focus on verbal cues, dual process models of persuasion posit that high involvement causes respondents to focus on the diagnostic features of the information mix (Chaiken, Liberman, and Eagly 1989; Petty and Cacioppo 1986)—in this case, the visual component. Given a construction-based judgment process at delay, therefore, reinstatement of the visual cue at delay should lead to greater stability for the high-involvement group versus the reasons group, but reinstatement of the original verbal information should produce greater stability for reasons versus high-involvement conditions. Experiment 2 tested these hypotheses and thereby sought to show that neither reasons analysis nor high involvement is irretrievably associated with low or high attitude stability—a finding that would further clarify the existing conflict in the literature.

While experiment 2 primarily focused on a comparison of reasons analysis and high involvement, a low-involvement control condition was also included. Participants in

this group should process the product information in a cursory, noneffortful fashion. Since visual cues are typically easier to process than verbal information (Houston et al. 1987), initial attitudes for this control group are likely to be greatly influenced by these cues. As a result, although the focus on visual cues arises from a different reason than in the high-involvement condition (i.e., ease of processing vs. diagnosticity; see Petty and Wegener 1999), the pattern of attitude stability predicted for this low-involvement condition is equivalent to that predicted for the high-involvement condition—a heightening of attitude stability when the visual cue is reinstated.

## Experiment 2: Design and Procedure

One hundred and fifteen undergraduates participated in the study in exchange for partial class credit. A 3 (processing instructions: reasons/high involvement/low involvement)  $\times$  2 (accessibility: low/high)  $\times$  2 (cue reinstated at delay: visual/verbal) design was used. The procedure followed was similar to experiment 1, except that a new product category, apartments, was studied in order to increase generalizability. All participants were provided with information about five different apartments, presented on successive pages of the stimulus booklet. Each of these pages contained a color photograph of the exterior of the apartment building and a table that provided information on the carpet color (milkweed, egg-white, bisque, ivory, or linen), the number of power outlets in the bedroom (10–12), the number of apartments per floor in the building (8–16), and the type of tile in the bathroom (ceramic, clay, or marble). Pretesting had revealed that each of these verbal attributes was considered less diagnostic than the photograph. Participants formed initial attitudes toward each apartment under reasons, high-involvement, or low-involvement conditions. The reasons conditions contained the same instructions as in experiment 1. In the high (low)-involvement conditions, participants were told that a new real estate agency founded by an alumnus from their (a different) business school had opened in their (a distant) city and was interested in their opinions of five apartment buildings that the agency was marketing locally (in a distant city). Further, they were told that each opinion was very important (not very important), since this was a small-scale (large-scale) survey. Initial attitudes were reiterated either five times or twice in order to manipulate attitude accessibility. Delayed attitude measures were collected five days later when participants were presented either the visual information (the apartment photos) or the verbal information (the attribute information for each apartment) from the first session.

## Results

A 3  $\times$  2  $\times$  2 ANOVA on the attitude stability index (i.e., the standardized absolute difference between initial and delayed attitudes) revealed a main effect of accessibility: as expected, when initial attitudes were more accessible, the difference score was lower ( $M_{\text{diff}} = 0.54$ ), and accordingly stability was greater, than when initial attitudes were less

accessible ( $M_{\text{diff}} = 0.67$ ;  $F(1, 557) = 5.64, p < .05$ ). Of more importance, this main effect was qualified by a significant three-way interaction ( $F(2, 557) = 4.08, p < .05$ ), which was further explored by examining the pattern of results across accessibility levels (see table 1). Under low initial attitude accessibility, the match-mismatch account argues that visual cue reinstatement should produce high stability for both high- and low-involvement conditions (vs. reasons), whereas verbal cue reinstatement should reverse this pattern. In support, planned contrasts revealed that when visual cues were reinstated, attitude stability was significantly lower for reasons ( $M_{\text{diff}} = 0.89$ ) versus both high-involvement ( $M_{\text{diff}} = 0.53, F(1, 557) = 10.04, p < .001$ ) and low-involvement conditions ( $M_{\text{diff}} = 0.50, F(1, 557) = 11.39, p < .001$ ); the latter two conditions did not differ ( $F < 1$ ). However, when verbal cues were reinstated, this pattern was reversed. Attitude stability was significantly greater for reasons ( $M_{\text{diff}} = 0.41$ ) versus high-involvement ( $M_{\text{diff}} = 0.87, F(1, 557) = 13.88, p < .001$ ) and low-involvement conditions ( $M_{\text{diff}} = 0.75, F(1, 557) = 7.04, p < .01$ )—again, the latter two groups did not differ ( $F(1, 557) = 1.08, p = .30$ ).

By contrast, under high accessibility, delayed attitudes should be based largely on the retrieved initial attitude; thus, high attitude stability should be obtained across conditions. In support, planned contrasts showed that high attitude accessibility prevented disruption irrespective of the reinstated cue—attitude stability did not differ across the three conditions for the visual cue (reasons  $M_{\text{diff}} = 0.65$ , low-involvement  $M_{\text{diff}} = 0.59$ , high-involvement  $M_{\text{diff}} = 0.64$ , all  $p$ 's  $> .10$ ), or for the verbal cue (reasons  $M_{\text{diff}} = 0.36$ , low-involvement  $M_{\text{diff}} = 0.47$ , high-involvement  $M_{\text{diff}} = 0.55$ , all  $p$ 's  $> .10$ ).

*Supplementary Analyses.* Convergent support for our stability findings was provided by an internal analysis within the “reasons” conditions. Each reason reported by participants was coded in terms of whether it implied a positive, negative, or neutral evaluation of the brand. Two independent assistants (93% agreement) performed this coding task. For each participant in the reasons conditions, a valenced reasons index (VRI) for each brand was then computed by subtracting the total number of negative reasons from the total number of positive reasons.

The relationship between VRI and initial attitudes, as well as that between VRI and delayed attitudes, helped to provide insights into the processes underlying attitude formation at initial exposure and delay. We expected high correspondence between VRI and time1 attitude measures across reasons conditions, as initial attitudes in all these conditions should be based on the reasons generated. As expected, this correlation was high for each of the four reasons conditions (correlations were between 0.52 and 0.60; none of the pairwise contrasts was significant; all  $p$ 's  $> .28$ ). As far as time2 attitudes are concerned, they should exhibit a strong link with VRI when initial attitudes are highly accessible, because the delayed attitude is then based primarily on the initial attitude, which itself is highly correlated with VRI. As expected, the correlation between VRI and time2 attitudes under high accessi-

bility was high for both visual cue reinstatement ( $r = 0.45$ ) and verbal cue reinstatement ( $r = 0.57$ ;  $z = 0.81$ ,  $p = .21$ ). Under low attitude accessibility, however, differences should emerge across cue type because the delayed attitude is now based primarily on the cues reinstated at delay. Therefore, a lower link between VRI (which is based primarily on verbal cues) and time2 attitudes should be obtained for visual (vs. verbal) cue reinstatement. In support, a lower correlation between VRI and time2 attitudes was observed when visual ( $r = 0.20$ ) rather than verbal cues ( $r = 0.55$ ,  $z = 1.92$ ,  $p < .05$ ) were reinstated under low accessibility. Thus, the supplementary evidence provided by examining the influence of listed reasons was consistent with our view of how initial and delayed attitudes were formed.<sup>2</sup>

## Discussion

Experiment 2 further clarified the dilemma regarding the opposing effects on stability that have been documented for reasons analysis (disruption) versus high involvement (strengthening). Specifically, our findings showed that, under conditions that favor a construction process at delay, either mode of processing can produce greater stability than the other. Thus, under construction-favorable conditions, it may not be correct to assert that high message involvement is inherently associated with high attitude stability or reasons analysis with low stability; rather, the extent of stability in both cases depends on the match/mismatch between the inputs used for initial attitude formation and those available for use at delay. In other words, the key difference between reasons analysis and high involvement does not lie in the intrinsic degree of attitude strength that can be produced by either processing mode. Instead, the major difference has to do with the cues that need to be reinstated at delay in order to produce a match (vs. a mismatch) with initial inputs. For instance, in the context of the current experiments, in which the visual cue is more relevant to the product's central merits than the accompanying verbal information, we found that visual cue reinstatement at delay leads to increased stability for high involvement (vs. reasons), whereas verbal cue reinstatement produces increased stability for reasons (vs. high involvement).

Another interesting finding in experiment 2 has to do with the equivalence in stability results for high- versus low-involvement conditions under low attitude accessibility. Research has shown that high-involvement produces greater stability than low-involvement processing (e.g., Chaiken 1980); however, as noted earlier, such findings are based on the classic retrieval perspective of attitude formation at delay. Specifically, when delayed attitudes are based on a retrieval process, it follows that high involvement should produce greater stability than low involvement, because the elaborative processing induced by high involvement leads to greater accessibility (and thus retrievability) of initial inputs at delay. The current research simply argues that the

retrieval perspective does not tell the whole story. When there is a long time delay between initial and delayed judgments, and attitude-relevant cues are externally available at delay, respondents may construct their attitudes afresh rather than retrieve initial judgments. Our results suggest that attitude stability will then depend on the match/mismatch between the inputs used to form initial attitudes versus those reinstated at delay. Initial attitudes for both high- and low-involvement respondents in this experiment were likely to have been based primarily on the apartment photo, because this cue was both relatively more diagnostic and easier to process than the verbal information (e.g., Petty and Wegener 1999). Thus, stability for both conditions was increased by reinstating the visual (vs. verbal) cues.

## CONCLUSION

This article reexamined the disruptive influence of reasons analysis, with a particular focus on attitude stability effects. A simple view of disruption is that reasons analysis exercises an intrinsic weakening influence on attitudes, thus producing not only the weaker attitude-behavior link often observed in past research (e.g., Wilson et al. 1984, 1993) but also the lowered stability recently documented by Sengupta and Fitzsimons (2000). However, this view conflicts with research showing that other forms of effortful processing (such as that induced by high involvement) yield a strengthening effect on attitudes. As a way out of this dilemma, we propose that the disruption effect is not due to a weakening influence of reasons analysis per se; rather, disruption occurs when attitudes at delay are reconstructed on the basis of contextual cues and there is a resulting mismatch between initial and delayed attitudes. Findings from two studies supported this explanation: we replicated earlier disruption findings under "mismatch" conditions (visual cues reinstated at delay); however, "match" conditions (verbal cues reinstated at delay) produced a strengthening effect of reasons analysis, even in comparison to high-involvement processing. Also consistent with our construction-based explanation, no stability differences were observed for different modes of processing in retrieval-friendly contexts—that is, when initial attitude accessibility was high across conditions. Collectively therefore, in addition to identifying the limits of disruption, our findings clarified the mechanism underlying this effect and also took a step toward resolving the conflict between stability effects for reasons analysis versus traditional forms of elaborative processing, such as that produced by high involvement. Specifically, rather than assuming that high involvement is uniquely linked to strengthening and reasons analysis to weakening, we suggest that conditions conducive to a construction mode of response at delay can cause either processing mode to produce greater or lower stability depending on available contextual cues.

It is interesting to compare the current construction-based account of the disruption effect with the mechanism proposed for the attitude-behavior disruption results obtained by Wilson and his colleagues. These researchers argue that disruption occurs because reasons analysis causes initial at-

<sup>2</sup>While not reported for space reasons, a similar analysis (with similar results) was also carried out for experiment 1.

titudes to be constructed primarily on the basis of such features of the attitude object as are easily verbalized, whereas behavior is based on the chronic or "true" evaluation of the attitude object that is retrieved upon continuous interaction with the object (e.g., Wilson et al. 1984, 1993). In both paradigms, therefore, disruption is held to occur because of a discrepancy between the bases of initial and final responses. However, Wilson's account posits a retrieval process at delay (retrieval of the "chronic" evaluation), whereas the current account posits a construction process at delay—that is, attitudes are freshly computed based on available contextual cues. Of importance, unlike the retrieval-based account, the construction-based mechanism articulated in this article serves not only to explain disruption findings but also identifies when and how reasons analysis can produce strengthening effects.

Finally, we note that the construction-based approach adopted in this article is consistent with research that has argued for a constructionist view of judgment and decision making (Bettman, Luce, and Payne 1998; Schwarz and Bless 1992). As our findings reveal, the construction model can be particularly useful in explaining phenomena that appear anomalous when viewed from the traditional retrieval perspective. At the same time, our work suggests that both models may be valid, albeit under different conditions. Research in judgment and decision making should benefit, therefore, from the appropriate application of these dual yet complementary perspectives.

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## REFERENCES

- Alba, Joseph W., Howard Marmorstein, and Amitava Chattopadhyay (1992), "Transitions in Preference over Time: The Effects of Memory on Message Persuasiveness," *Journal of Marketing Research*, 29 (November), 406–16.
- Berger, Ida E. (1992), "The Nature of Attitude Accessibility and Attitude Confidence: A Triangulated Experiment," *Journal of Consumer Psychology*, 1 (2), 103–23.
- Bettman, James R., Mary Frances Luce, and John W. Payne (1998), "Constructive Consumer Choice Processes," *Journal of Consumer Research*, 25 (December), 187–217.
- Chaiken, Shelly (1980), "Heuristic versus Systematic Information Processing and the Use of Source versus Message Cues in Persuasion," *Journal of Personality and Social Psychology*, 39 (November), 752–66.
- Chaiken, Shelly, Akiva Liberman, and Alice H. Eagly (1989), "Heuristic and Systematic Information Processing within and beyond the Persuasion Context," in *Unintended Thought*, ed. James S. Uleman and John A. Bargh, New York: Guilford, 212–52.
- Fazio, Russell H. (1995), "Attitudes as Object-Evaluation Associations: Determinants, Consequences, and Correlates of Attitude Accessibility," in *Attitude Strength: Antecedents and Consequences*, ed. Richard E. Petty and Jon A. Krosnick, Mahwah, NJ: Lawrence Erlbaum, 73–92.
- Fazio, Russell H., David M. Sanbonmatsu, Martha C. Powell, and Frank R. Kardes (1986), "On the Automatic Activation of Attitudes," *Journal of Personality and Social Psychology*, 50 (February), 229–38.
- Haugtvedt, Curtis P., David W. Schumann, Wendy L. Schneier, and Wendy L. Warren (1994), "Advertising Repetition and Variation Strategies: Implications for Understanding Attitude Strength," *Journal of Consumer Research*, 21 (June), 176–89.
- Houston, Michael J., Terry L. Childers, and Susan E. Heckler (1987), "Picture-Word Consistency and the Elaborative Processing of Advertisements," *Journal of Marketing Research*, 24 (November), 359–69.
- Payne, John W., James R. Bettman, and Eric J. Johnson (1992), "Behavioral Decision Research: A Constructive Processing Perspective," *Annual Review of Psychology*, 43, 87–131.
- Petty, Richard E. and John T. Cacioppo (1986), *Communication and Persuasion: Central and Peripheral Routes to Attitude Change*, New York: Springer Verlag.
- Petty, Richard E. and Duane T. Wegener (1999), "The Elaboration Likelihood Model: Current Status and Controversies," in *Dual-Process Theories in Social Psychology*, ed. Shelly Chaiken and Yaacov Trope, New York: Guilford, 41–72.
- Schooler, Jonathan W. and Tonya Engster-Schooler (1990), "Verbal Overshadowing of Visual Memories: Some Things Are Better Left Unsaid," *Cognitive Psychology*, 22 (January), 36–71.
- Schwarz, Norbert and Herbert Bless (1992), "Constructing Reality and Its Alternatives: An Inclusion/Exclusion Model of Assimilation and Contrast Effects in Social Judgment," in *The Construction of Social Judgment*, ed. Abraham Tesser and Leonard Martin, Hillsdale, NJ: Lawrence Erlbaum, 217–45.
- Sengupta, Jaideep and Gavan J. Fitzsimons (2000), "Disruption vs. Reinforcement: The Effects of Analyzing Reasons for Brand Preferences," *Journal of Marketing Research*, 37 (August), 318–30.
- Sengupta, Jaideep, Ronald C. Goodstein, and David S. Boninger (1997), "All Cues Are Not Created Equal: Obtaining Attitude Persistence under Low-Involvement Conditions," *Journal of Consumer Research*, 23 (March), 351–61.
- Sengupta, Jaideep and Gita V. Johar (2002), "Effects of Inconsistent Information on the Predictive Value of Product Attitudes: Towards a Resolution of Opposing Perspectives," *Journal of Consumer Research*, 29 (June), 39–56.
- Simonson, Itamar and Stephen M. Nowlis (2000), "The Role of Explanations and Need for Uniqueness in Consumer Decision Making: Unconventional Choice Based on Reasons," *Journal of Consumer Research*, 27 (June), 49–68.
- Tetlock, Philip E. (1983), "Accountability and Complexity of Thought," *Journal of Personality and Social Psychology*, 45 (July), 74–83.
- Wilson, Timothy D., Dana S. Dunn, Jane A. Bybee, Diane B. Hyman, and John A. Rotondo (1984), "Effects of Analyzing Reasons on Attitude-Behavior Consistency," *Journal of Personality and Social Psychology*, 47 (July), 5–16.
- Wilson, Timothy D., Dana S. Dunn, Dolores Kraft, and Douglas J. Lisle (1989), "Introspection, Attitude Change, and Attitude-Behavior Consistency: The Disruptive Effects of Explaining Why We Feel the Way We Do," in *Advances in Experimental Social Psychology*, Vol. 22, ed. Leonard Berkowitz, New York: Academic Press, 289–343.
- Wilson, Timothy D., Douglas J. Lisle, Jonathan W. Schooler, Sara D. Hodges, Kristen J. Klaaren, and Suzanne J. LaFleur (1993), "Introspecting about Reasons Can Reduce Post-Choice Satisfaction," *Personality and Social Psychology Bulletin*, 19 (June), 331–39.