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Understanding the Effects of Process-Focused versus Outcome-Focused Thought in Response to Advertising

JENNIFER EDSON ESCALAS
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Research on mental simulation finds differential effects for process versus outcome focus. We manipulate the focus of participants' thoughts while viewing advertisements and find that under low to moderate involvement, argument strength has a greater effect on behavioral intentions when participants focus on the process versus the outcome of product use. This differential advantage of process-focused thought reverses under conditions of high involvement. The apparent reason for the sensitivity of process-focused thought to argument strength under low to moderate involvement is that a process focus leads to the relatively spontaneous formulation of a plan to purchase given strong, but not weak, ad arguments.

Advertising often encourages consumers to simulate favorable outcomes of product use. A recent ad campaign for Whirlpool washing machines asks consumers to "imagine" clothes that "look new, longer." Even ads that do not specifically instruct viewers to use their imagination often focus on product benefits. For example, ads for beauty products show beautiful people, ads for ovens show delicious food, and ads for fitness equipment show lean, buff bodies. Thus, messages appear to focus on the enjoyment of achieved positive benefits or outcomes. Of course, some outcome-focused messages are more persuasive than others. The dominant models used to predict the degree of persuasion are dual-process models, such as the elaboration likelihood model (ELM; Petty, Cacioppo, and Shumann 1983) and the heuristic-systematic model (HSM; Chaiken 1980). The critical element in these theories is the amount of thought or elaboration that an individual devotes to the message in the ad.

One of the main developments beyond the dual-process model approach to persuasion is work documenting the differential effects of distinct types of elaboration on memory, judgment, and persuasion. Meyers-Levy (1991) notes that the effects of elaboration on ad processing differ depending on whether that elaboration is item specific (i.e., focusing on distinctive aspects of the featured product) or relational (i.e., focusing on shared themes within a category). Mala-

viya, Kisielius, and Sternthal (1996) extend this work, noting that the combination of both item-specific and relational elaboration facilitates ad recall. Other areas of consumer research also consider qualitative distinctions between types of thought. For instance, one of the classic distinctions related to consumer decision processing is that between attribute- versus alternative-based cognitive processing operations (e.g., Bettman and Kakkar 1977). Research on consumers' classification processes distinguishes between holistic (similarity-based) versus analytical (rule-based) methods (Alba and Hutchinson 1987).

Continuing in the tradition of investigating the effects of qualitatively different types of elaboration, this article explores the differential effects of a newly delineated distinction: outcome- versus process-focused thought. Recent research in social psychology indicates that by focusing on the processes involved in goal-directed activities, rather than on favorable outcomes, people are better able to achieve their goals (Taylor et al. 1998). Recent consumer research has extended this finding to advertising, where process-focused thought was found to enhance behavioral intentions toward advertised products (Escalas and Luce 2003). In the advertising domain, the thought focus effect is moderated by argument strength, a finding not anticipated by Taylor et al. (1998).

The purpose of the current article is to explore under what conditions thought focus influences responses to advertisement argument strength. In the next section, we discuss the differences between process- and outcome-focused mental simulation. We draw specific hypotheses regarding how these different thought foci may influence consumers during

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ad viewing. In two experiments, we demonstrate that under conditions of low to moderate involvement, the effect of advertisements encouraging process-focused thought on behavioral intentions is more sensitive to argument strength than ads encouraging outcome-focused thought. We also begin to identify the cognitive processes leading to this effect: relatively low involvement, narratively structured, planning processes.

PROCESS- VERSUS OUTCOME-FOCUSED MENTAL SIMULATION

Mental simulation is the imitative mental representation of events (Taylor and Schneider 1989). A good deal of social psychological research on mental simulation about likely future events concludes that it can affect future outcomes through positive changes in attitudes, behavioral intentions, and actual behavior, particularly if the simulation is self-relevant and repeated (e.g., Anderson 1983; Carroll 1978; Gregory, Cialdini, and Carpenter 1982). It appears, however, that not all types of mental simulation are equally beneficial (Taylor et al. 1998). Recent research establishes process versus outcome focus as a crucial distinction between types of mental simulation. Pham and Taylor (1999) look at the effects of mental simulation for students' behavioral outcomes such as increased studying and better grades and conclude that the most successful simulation focuses on processes rather than outcomes. Thus, simulating progressive steps toward a goal is more effective toward achieving that goal than simulating experiences of success resulting from having reached the goal.

Focus of Mental Simulation and Advertising

Recent research (Escalas and Luce 2003) extends the process versus outcome thought focus paradigm to advertising, demonstrating that participants instructed to focus on the process of using a fictitious vitamin product reported stronger intentions to engage in behavior encouraged by the advertisement. Further, participants are more sensitive to argument strength under process-focused instructions, such that process-focused instructions enhance the favorable effect of strong arguments and the unfavorable effect of weak arguments. Given the existing demonstration that process-focused thought may have an important influence on persuasion outcomes, a closer look at the mechanisms underlying these effects seems warranted.

Taylor et al.'s (1998) research finds two mediators through which process-focused simulation generates advantageous outcomes: planning and emotion regulation. However, Taylor et al. (1998) do not elaborate on exactly how process-focused thought results in a plan.¹ Thus, prior work in social

¹Although Taylor et al. (1998) find that emotion regulation is a mediator of process-focused simulation effects, we do not expect to find significant mediation for emotion variables, as the advertising situations we investigate are generally less threatening than the situation that they investigate (i.e., studying for an exam).

psychology suggests that planning mediates the effect of process-focused mental simulation, and prior consumer research demonstrates that process-focused mental simulation effects extend to the advertising domain where they are moderated by argument strength. However, prior work has not yet addressed the specific planning processes through which process-focused thought increases sensitivity to argument strength, nor has this work explored implications for more traditional views of persuasion, such as the ELM. We believe that the narrative structure of mental simulation can be used to shed light on both.

Theory Development: Mental Simulation and Planning

Simulations are episodic in nature: people imagine an event unfolding over time. Therefore, simulations are similar to stories or narratives (Fiske 1993) linking actions and outcomes in a causal fashion (Bruner 1990; Pennington and Hastie 1986; Stein and Albro 1997). Process-focused simulation emphasizes the actions necessary to achieve an outcome, forging action-outcome links. Thus, process-focused thought seems likely to encourage plan formation, where a plan is a method of doing something worked out in some detail before it is begun, by creating a detailed, step-by-step story or narrative (e.g., "If I engage in actions *x* and *y*, then I will achieve the outcome *z*"). On the other hand, outcome-focused simulation emphasizes the end of the story, that is, the positive benefits or results of action. The actions are assumed to have occurred, but the step-by-step details are not necessarily considered.

Thus, we argue that process- versus outcome-focused modes of thought encourage the creation of different types of narratives in working memory. We expect these different narratives to recruit different types of exemplars or associations from memory. This is consistent with the classic notion of schema-based thought (e.g., Bartlett 1932), which argues that people reconstruct or otherwise "selectively" remember prior events to fit their current expectations. Schank and Abelson (1977, 1995; Abelson 1981) extended these ideas by noting that knowledge of complex event sequences is represented in scripts, or detailed sequences of goal-directed actions, and that these scripts might guide both interpretation of incoming information and retrieval of past information. We expect that both the structure of the narrative information in working memory and the focal episode(s) to which information is matched will differ under process- versus outcome-focused thought conditions, with process-focus matching to exemplars of prior actions and/or action-outcome linkages and outcome-focus matching to exemplars of outcomes only.

In persuasion contexts, the formation of behavioral intentions should be influenced by the specific episodes that are matched to one's mental simulation. We anticipate that process-focused thought will generally result in sensitivity to argument strength because consumers will be unable to associate the simulation to prior successful actions or plans

(or use them to guide simulation) when the behavior's ability to achieve the outcome is weak. Thus, persuasion will be determined by matching the process in the ad-generated simulation to favorable or unfavorable action-outcome sequences that consumers have experienced or heard about from others. Conversely, the outcomes portrayed in advertising are generally favorable, such that in outcome-focused simulations, consumers should match their simulation to episodes in memory that involve the favorable outcome presented by the ad. Unless consumers engage in elaboration and systematic processing, they may pay little attention to argument strength during outcome-focused simulation.

Note that we expect the above processes of narrative construction or simulation to occur naturally and under conditions of low elaboration. Much research on narrative processing shows that people naturally think about and interpret the world around them through stories (Bruner 1990; Kerby 1991). Some researchers believe that narrative processing is extremely pervasive, such that "all of our knowledge is contained in stories and the mechanisms to construct and retrieve them" (Schank and Abelson 1995, p. 1). Further, recruitment of (different) exemplars for process- versus outcome-focused thought may often occur through an automatic process of recruitment of mental representations (Bargh and Chartrand 1999) rather than through an overt and effortful search for specific memories. For example, this process could occur through pattern recognition and matching to related prior plans, which may be relatively low in effort, if not completely automatic (e.g., see Klein 2000 on recognition-primed decision making). Thus, we believe that the effects we attribute to process-focused thought do not require significant amounts of cognitive elaboration to occur. We predict that process-focused thought will uniquely generate sensitivity to argument strength under conditions traditionally associated by ELM and other dual-processing models with insensitivity to argument strength. Specifically, we expect process-focused thought to lead to sensitivity to argument strength in low to moderate involvement conditions or, equivalently, under relatively low levels of cognitive resources (cf. Anand and Sternthal 1989).

HYPOTHESIS DEVELOPMENT

We intend to further investigate the thought focus by argument strength interaction demonstrated in Escalas and Luce (2003) in order to uncover the underlying mechanisms that lead to this effect. We expect our findings to replicate the finding demonstrated in that article:

H1: Under conditions of low to moderate involvement, argument strength will have a greater effect on behavioral intentions when thoughts focus on the process of using the product, compared to the outcome of using the product.

As argued in our theory development section, we believe the above-mentioned pattern of results to be driven by relatively spontaneous planning processes that are generated

by process- but not outcome-focused thought. We expect that outcome-focused thought will come under the purview of the dual-process model predictions: when involvement is high, elaboration of the ad's message under the outcome-focus condition should consist of systematic processing, evoking differential levels of persuasion depending on the strength of the ad message. Thus, we see low to moderate involvement levels as a boundary condition for the basic effect in hypothesis 1, and we do not expect increased sensitivity to argument strength under process- versus outcome-focused thought to persist under high involvement conditions (i.e., conditions associated with high levels of elaboration or the availability of high levels of cognitive resources).

H2: Under conditions of high involvement, argument strength will have an effect on behavioral intentions when thoughts focus on the outcome of using the product.

Because we argue that process-focused planning processes can occur under conditions of relatively automatic or low effort processing, it seems that competing predictions are possible regarding the combination of process-focused thought and high involvement. Process-focused participants might become cognitively aware of and sensitive to argument strength, consistent with the prediction made for outcome-focused participants mentioned above and more generally consistent with the ELM. Thus, they may engage in conscious, analytical processing of argument quality, remaining (or becoming even more) sensitive to argument strength. Alternatively, the addition of increasingly elaborate and conscious process-focused thought over and above these purportedly automatic processes might somehow interfere with or distract subjects from planning. For instance, subjects attempting to consciously and analytically reflect on the process of product usage may go beyond ad argument strength in their thinking. Therefore, high involvement, process-focused sensitivity to argument strength remains an empirical question that will be addressed in experiment 1.

We expect the effect postulated in hypothesis 1 to be driven by relatively spontaneous planning processes that are uniquely evoked by process-focused thought. More precisely, we expect that the episodic, narrative structure of simulations in the process-focus conditions will generate attempts to link actions and outcomes into a concrete, step-by-step plan. We also expect process-focused participants to accept (or reject) the link between advertised behavior and outcomes as they formulate (or veto) such a plan. On the other hand, we do not expect outcome-focused thought to lead to plan formulation. Thus, we expect that process-focused thought will operate to increase sensitivity to argument strength through planning, whereas outcome-focused thought will not.

H3: Under conditions of low to moderate involvement, degree of planning will mediate the effect of argument strength on behavioral intentions for process-focused participants.

Below, we report two experiments examining the interactive effect of argument strength and thought focus on behavioral intentions under conditions of low to moderate involvement (hypothesis 1). Experiment 1 also compares the effects of thought focus under conditions of high involvement (hypothesis 2). Then, experiment 2 focuses solely on the low to moderate involvement context in order to examine the degree to which planning mediates this effect (hypothesis 3).

EXPERIMENT 1

In this study, we examine the moderating effect of process versus outcome thought focus on response to argument strength (hypothesis 1) in the context of print advertisements for fictitious vitamin and shampoo products. We also manipulate involvement to test our hypothesis that low to moderate involvement levels serve as a boundary condition for the differential advantage of process-focused thought (hypothesis 2).

Method

Design, Participants, and Procedure. This study is a $2 \times 2 \times 2 \times 2 \times 2$ mixed design, crossing product (vitamins/shampoo, within subjects) with thought focus (outcome/process focus, between subjects) with argument strength (strong/weak, between subjects) with level of involvement (control/high involvement, between subjects). Order (vitamin first/shampoo first) was also counterbalanced between subjects. As part of their requirements in an introductory marketing course, 178 students at a large, private northeastern university participated in this study. Stimuli were presented and responses collected via a Visual Basic computer program run in a university computer lab. Participants received pre-ad processing instructions (relevant to each participant's thought focus and the elaboration group), viewed a one-page print advertisement (for vitamins or for shampoo), answered opinion questions using zero to 100 sliding scales, started the process again for their second print advertisement, and finally read a debriefing statement.

Independent Variables. We manipulate process versus outcome focus between subjects with the pre-ad thought focus instructions presented in appendix A (i.e., the ad text did not vary across these conditions). We manipulate argument strength between subjects by varying the credibility and strength of "scientific" claims made in each ad (see app. B for ad text). We also implement a between-subjects involvement manipulation, with the goal of motivating deeper elaboration without biasing the type or content of thought. Thus, we told the high involvement participants to "PAY ATTENTION to the ad as if you were actually thinking about a real ad." Subjects were told that they would be eligible for one of five \$50 prizes based on their performance in an (unspecified) later test to see if they had paid attention; they were also told repeatedly that the test questions would come after a set of opinion questions (i.e., our dependent

measures). Thus, the "test" phase of the experiment (related to the \$50 prize) was clearly separated from the "opinion" phase where dependent measures were collected. Prizes were randomly awarded from among students with perfect recall of product brand names. Participants in the control condition for the involvement manipulation were not presented with these instructions and were therefore expected to be characterized by low to moderate involvement (Escalas and Luce 2003).

Measures. After each ad, participants reported their behavioral intentions (BI) toward the product with the two-item measure listed in appendix C ($\alpha = .75$).² We then measured self-reported process focus ($\alpha = .86$), outcome focus ($\alpha = .78$), and argument strength ($\alpha = .90$) as manipulation checks. We checked our involvement manipulation in three ways. First, we measured response times for ad viewing and for questionnaire completion (i.e., time to view each ad and respond to dependent measures about that ad) as unobtrusive checks. Second, we collected a free-response memory measure for the brand name associated with the relevant advertisement. Third, we took two scale measures addressing personal relevance ($\alpha = .87$). Finally, we collected a four-item scale for a self-report of degree of planning ($\alpha = .75$) to explore hypothesis 3.

Results

Manipulation Checks. The thought focus manipulation successfully influences the process-focus check ($M_{\text{process}} = 45.02$, $M_{\text{outcome}} = 37.83$; $F(1, 161) = 8.96$, $p < .01$). However, the thought focus manipulation does not significantly influence the outcome-focused check ($M_{\text{process}} = 59.73$, $M_{\text{outcome}} = 62.60$; $F(1, 161) = 1.56$, NS). It appears that participants in the process-focused conditions thought about both the process and the outcome of using the shampoo/vitamins, while participants in the outcome-focused instructions condition thought primarily about the results of using the shampoo/vitamins. The argument strength manipulation affects the relevant check ($M_{\text{strong}} = 53.48$, $M_{\text{weak}} = 38.94$; $F(1, 161) = 17.94$, $p < .001$). Finally, the relevant checks show that our involvement manipulation was successful. First, there is a main effect of involvement for ad viewing time ($F(1, 160) = 4.51$, $p < .05$), with the high involvement condition ($M = 22$ sec.) associated with longer viewing times than the control condition ($M = 17$ sec.). We find an analogous effect on questionnaire completion time ($M_{\text{high involvement}} = 370$ sec., $M_{\text{control condition}} = 319$ sec.; $F(1, 160) = 7.30$, $p < .01$). Second, there is a significant effect of the involvement manipulation on memory for the product brand name ($M_{\text{high involvement}} = 0.74$, $M_{\text{control condition}} = 0.46$; $F(1, 132) = 23.47$, $p < .01$). Finally, participants reported greater personal relevance under increased involvement ($M_{\text{high involvement}} = 41.62$,

²In cases where Cronbach's alpha is less than 0.85, individual items were checked to verify that they showed the same pattern of responses as scale items.

$M_{\text{control condition}} = 35.61$; $F(1, 132) = 8.92$, $p < .01$). We found no evidence that our thought focus manipulation or our thought focus by argument strength interaction influenced ad response times (F 's < 1), questionnaire response times (F 's < 1), brand memory ($p > .20$), or rated personal relevance (F 's < 1).

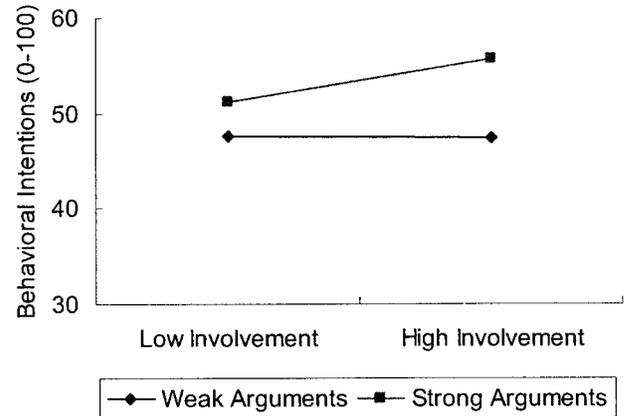
Hypotheses 1 and 2. Hypothesis 1 predicts that argument strength will differentially affect BI under process-focused (but not outcome-focused) thought in the control condition, while hypothesis 2 specifies high involvement as a boundary condition for this effect. As expected, we find a three-way argument strength by thought focus by involvement interaction for behavioral intentions ($F(1, 161) = 4.21$, $p < .05$). Consistent with hypothesis 1, planned contrasts show that within the control involvement condition, the strong versus weak arguments have a differential effect on BI for process-focused thought conditions ($M_{\text{strong}} = 53.49$ vs. $M_{\text{weak}} = 34.64$; $F(1, 161) = 16.03$, $p < .01$). Conversely, again considering the control involvement condition, argument strength does not effect BI for outcome-focused thought conditions ($M_{\text{strong}} = 51.14$ vs. $M_{\text{weak}} = 47.64$; $F(1, 161) = 1.23$, $p > .20$).

Under high involvement (i.e., with explicit instructions encouraging attention to the ad), the simple effects pattern actually reverses. Specifically, there is a significant argument strength effect under outcome focus ($M_{\text{strong}} = 55.67$ vs. $M_{\text{weak}} = 47.37$; $F(1, 161) = 6.01$, $p < .05$) but not under process focus ($M_{\text{strong}} = 52.81$ vs. $M_{\text{weak}} = 48.29$; $F < 1$). Thus, under high involvement, we find a differential effect across argument strength only in the outcome condition. However, in the control condition, the differential effect of argument strength is found only in the process condition.

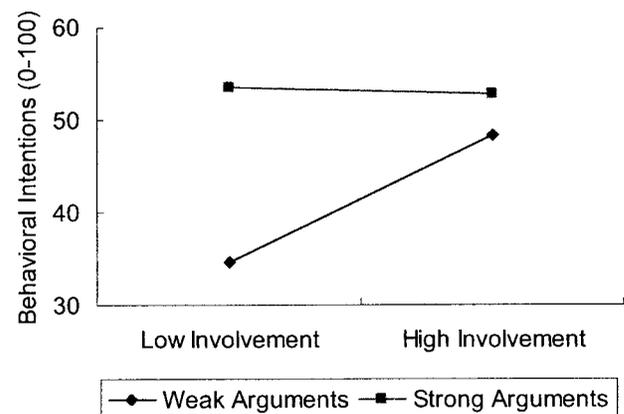
A graphical representation of our results, organized by processing-instruction condition for ease of comparison to traditional ELM findings, is provided in figure 1. Note that our outcome-focused thought conditions conform to the expectations of the ELM model, with sensitivity to argument strength increasing with elaboration. The process-focused thought conditions stand in stark contrast to this pattern, with sensitivity to argument strength actually decreasing with elaboration. Thus, while each of the involvement by thought focus conditions is associated with (directionally) higher behavioral intentions for stronger arguments, the directional and statistical strength of this effect increases with involvement (consistent with ELM) for outcome focus but not for process focus.

Hypothesis 3. In order to address hypothesis 3, we assess self-reported planning in the control involvement condition, where argument strength has an effect under process-focused thought. First, there is a thought focus by argument strength interaction for our plan mediator ($F(1, 161) = 4.92$, $p < .05$). Under process-focused thoughts, more planning is reported for strong ($M = 42.85$) than for weak ($M = 32.76$) ad arguments (simple effect $F(1, 161) = 4.93$, $p < .05$). (Under outcome-focused thought, directionally less planning is reported for strong [$M = 37.67$] than

FIGURE 1
INTERACTION RESULTS FOR EXPERIMENT 1
OUTCOME-FOCUS REPLICATES ELM



PROCESS WORKS DIFFERENTLY



for weak [$M = 41.56$] arguments, however, the simple effect is not significant [$F < 1.0$].) When the plan mediator is added to the model for behavioral intentions, we find a significant main effect of planning on BI ($F(1, 160) = 11.53$, $p < .001$). The addition of the planning variable to the model causes the thought focus by argument strength effect to drop to nonsignificance ($F(1, 160) = 2.06$, $p = .15$, as compared to the above-reported $F(1, 161) = 4.38$, $p < .05$). Therefore, we have some evidence that the interaction found under control involvement conditions is mediated by planning. We explore this hypothesis in further depth in experiment 2.

Additional Analyses. In addition to entering into interactions, argument strength has a significant main effect on behavioral intentions ($M_{\text{strong}} = 53.56$, $M_{\text{weak}} = 44.70$;

$F(1, 161) = 12.59, p < .001$). Additionally, there is a main effect of product on behavioral intentions ($M_{\text{vitamins}} = 47.03, M_{\text{shampoo}} = 51.73; F(1, 161) = 5.19, p < .02$), however, product class does not interact with our effects of interest.

Discussion of Results from Experiment 1

Experiment 1 demonstrates that under low to moderate involvement, participants are more sensitive to argument strength when given process-focused (vs. outcome-focused) instructions (hypothesis 1). It further demonstrates that this argument strength by thought focus interaction is reversed under high involvement (hypothesis 2, see fig. 2). Our manipulation checks indicate that our thought content manipulation primarily influences whether participants consider the process of using the advertised product, with participants in both conditions considering final outcomes. This is consistent with our assertion that process-focused simulations link processes to outcomes in goal-oriented action sequences.

Our combined pattern of results indicates that process-focused thought represents a relatively unique case of divergence from the effects predicted by dual-processing models of persuasion (e.g., ELM). We replicate the ELM predictions under outcome-focused thought. When participants are directly encouraged to elaborate on the ad, we find a differential effect across argument strength for outcome-focused thought, whereas under conditions of low involvement (control), argument strength is ignored. However, when participants engage in process-focused thinking, we find the rather counterintuitive result that process focus generates sensitivity to argument strength only in the absence of involvement. Under high involvement, process-focused thought appears to distract participants' attention away from the differential strength of the ad's arguments. This finding is consistent with Sujan, Bettman, and Baumgartner's (1993) finding that consumers can be distracted away from paying attention to weak arguments when they become absorbed in remembering an autobiographical episode. It may be that high involvement process-focused mental simulation similarly distracts attention away from weak arguments. This possibility will be further addressed in the general discussion.

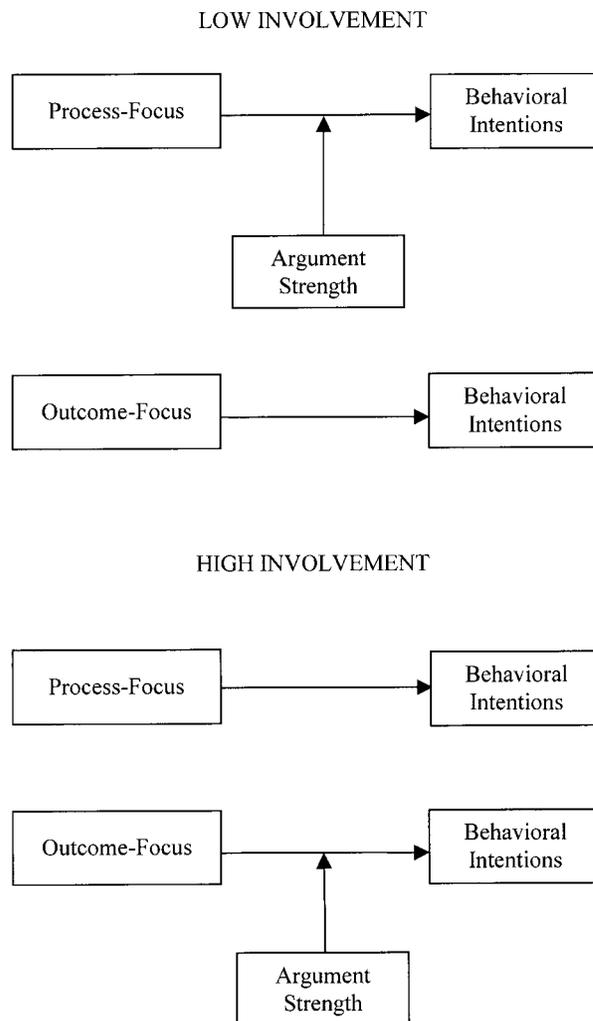
This study provides some support for our plan formation explanation of process-focused thought effects. A self-reported measure of cognitive planning mediates the thought focus by argument-strength interaction under conditions of low to moderate involvement (hypothesis 3). However, because we expect that process-focused planning processes are relatively spontaneous, it seems possible that answers to our planning measures involved post hoc rationalizations of expressed purchase intent rather than planning generated during ad viewing. Therefore, in experiment 2, we develop a new, and less transparent, measure of spontaneous planning.

EXPERIMENT 2

Experiment 2 extends experiment 1 in two principle ways. First, we employ coding of subjects' ad-generated thought

FIGURE 2

PROCESS VERSUS OUTCOME THOUGHT FOCUS MODEL



listings as a more subtle methodology for reflecting spontaneous planning processes. Because experiment 1 demonstrates a path from process-focused thought to sensitivity to argument strength only under low to moderate involvement conditions, we focus on this condition. Second, experiment 2 manipulates thought focus as an integral part of the relevant advertisement. We use the context of a storyboard advertisement for a fictitious shampoo product. Storyboards are commonly used by advertising agencies to sketch out ad concept ideas by presenting a series of ad scenes. This medium enables us to manipulate the degree to which the ad focuses on the process versus the outcome of product usage, while simultaneously controlling the content of the ad. Thus, we are able to explore whether advertisers can influence the degree to which ad viewers' thoughts focus on the process or outcome of using their product without depending on impracticable pre-ad instructions.

Method

Design, Participants, and Procedure. This study is a $2 \times 2 \times 2$ between-subjects design, crossing storyboard focus (process vs. outcome) with argument strength (strong vs. weak) with thought protocol measurement (present vs. absent). Involvement was held constant at the (presumably low to moderate) control level from experiment 1, as the current experiment is concerned with testing for the presence of spontaneous planning processes hypothesized to occur under these conditions. Two hundred and twenty-two undergraduate students at a private, northeastern university participated in this study to meet a course requirement. The computer-based procedure for this study was similar to that described for experiment 1. However, the program used one storyboard ad stimulus rather than two print ads and solicited open-ended ad responses from half of our subjects.

Independent Variables. We manipulate thought focus by varying the degree to which the storyboard advertisement focuses on the process or the outcome of using a fictitious shampoo product. The storyboard consists of four scenes, incorporating three digital images with a title above the picture and text below the picture. The three images include (1) a photo of a woman washing her hair, (2) a photo of the woman with styled hair, talking with a man, and (3) a photo of hair care products. In the process-focus condition, the first and second scenes are the photo of the woman washing her hair, followed by the photo of the woman and man, followed by the product shot. In the outcome-focus story condition, the first scene is the photo of the woman washing her hair, followed by two scenes with the photo of the woman talking to the man, followed by the product shot. The scenes are timed to appear for approximately 15 sec. each. We manipulate ad strength in the text below the pictures in the storyboard scenes, varying both the credibility and the strength of specific "scientific" claims made in each ad (see app. D).

Measures. Immediately after ad viewing, approximately half of the participants were asked to type in the thoughts they had while looking at the ad ($n = 109$). Two independent coders, blind to the hypotheses, completed a general classification scheme for thoughts (e.g., positive vs. negative brand and ad thoughts) as well as more specific questions to assess the degree to which the thoughts articulated a plan (see app. C). The two coders' average degree of planning scores were reasonably correlated ($r = .62, p < .001$), had strong Cronbach's alphas (coder 1, $\alpha = .93$; coder 2, $\alpha = .99$), and were averaged to form one degree of planning score per participant (combined $\alpha = .90$).

All participants answered a set of scale items similar to the set used in experiment 1 (see app. C). Behavioral intentions are again the primary dependent variable ($\alpha = .64$). Participants rated their degree of process-focused ($\alpha = .89$) and outcome-focused thought ($\alpha = .78$). Two items rated the strength of ad arguments ($\alpha = .87$). Two items were also constructed to reflect perceived quality of

the storyboard advertisement ($\alpha = .88$), primarily to ascertain whether the two thought focus storyboard scene orders were perceived as being equally high-quality advertisements. Finally, although involvement was not manipulated in this study, we included the manipulation check of personal relevance for comparison with study 1 ($\alpha = .72$). (Note that the time and recall measures could not be compared across studies because of differences in stimuli and procedure.)

Results

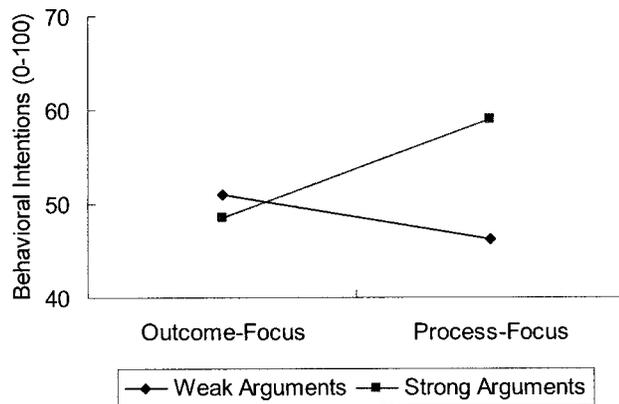
We were concerned that soliciting thought listings would interfere with the basic cognitive processes under study, so we manipulated thought listing presence between subjects. This variable and all its interactions are included in the model to test our manipulation checks and hypothesis 1, however, none of the main or interaction effects are significant and therefore are not discussed below.

Manipulation Checks. The effect of the storyboard thought focus manipulation on our process-focus manipulation check is significant ($M_{\text{process focus}} = 28.90, M_{\text{outcome focus}} = 20.07, F(1, 214) = 14.30, p < .001$). However, the effect of the storyboard manipulation on the outcome-focus manipulation check is not significant (process focus = 27.14, outcome focus = 29.48, $F(1, 214) = 1.18, \text{NS}$), consistent with the findings of experiment 1. Argument strength has a significant effect on the relevant manipulation checks assessing ad reasons ($M_{\text{weak}} = 42.17, M_{\text{strong}} = 46.62, F(1, 214) = 3.30, p < .05$, one-tailed test) and also influenced assessed ad quality ($M_{\text{weak}} = 39.63, M_{\text{strong}} = 46.48, F(1, 214) = 7.40, p < .01$). Note that ad reasons and ad quality were not influenced by the storyboard thought focus manipulation (F 's < 1.0), indicating that this manipulation was successful in altering process versus outcome focus without directly altering overall ad quality. In addition to entering into interactions discussed below, argument strength has a significant main effect on behavioral intentions ($M_{\text{strong}} = 53.58, M_{\text{weak}} = 48.67; F(1, 214) = 4.37, p < .05$). Finally, the personal relevance mean for study 2 was equivalent to that of the control condition, shampoo only mean in study 1 ($M_{\text{study 1}} = 25.90, M_{\text{study 2}} = 27.42; t(309) < 1.0$). A t -test comparison also reveals that the personal relevance mean in study 2 is significantly lower than that of the high involvement, shampoo product only condition in study 1 ($M = 34.28; t(176) = 2.63, p < .01$). Both t -tests support the view that study 2 was conducted in a low to moderate involvement setting.

Hypothesis 1. Consistent with the low to moderate involvement condition in experiment 1, we find a significant argument strength by storyboard focus (process vs. outcome) interaction on BI ($F(1, 214) = 8.85, p < .01$). As seen graphically in figure 3, for the process-focused conditions, weak arguments result in significantly lower behavioral intentions compared to strong arguments ($M_{\text{weak}} = 42.27$ vs. $M_{\text{strong}} = 59.00$; simple effect $F(1, 214) = 12.51, p < .01$);

FIGURE 3

INTERACTION RESULTS FOR EXPERIMENT 2



however, this is not the case under outcome-focus conditions ($M_{\text{weak}} = 50.99$ vs. $M_{\text{strong}} = 48.53$; simple effect $F < 1.0$).

Hypothesis 3. This hypothesis predicts that spontaneous planning processes will mediate the interactive effect of argument strength and thought focus on behavioral intentions. These analyses are only relevant to the subjects who were asked to provide open-ended responses that were subsequently coded for evidence of planning. Although our primary goal is to collect open-ended responses to analyze for evidence of spontaneous planning statements, the independent coders also completed very general measures in order to both mask our specific planning hypotheses and verify that any variation in spontaneously expressed planning was not an artifact of some more general differences in cognitive responses to the outcome- versus process-focused conditions. As expected, these general measures, including positive ad thoughts, negative ad thoughts, positive brand thoughts, negative brand thoughts, other/unrelated thoughts, and total thoughts, did not differ by process versus outcome conditions ($p > .20$) nor did they differ by the thought focus by argument strength interaction ($p > .20$). This is some indication that the thought focus effects in this experiment were not operating through traditional ELM pathways (such as the amount of counter or support arguing), consistent with our supposition that process-focused thought can enhance sensitivity to argument strength in low involvement situations.

We find the expected thought focus by argument strength interaction effect on our thought-coding plan mediator ($F(1, 105) = 11.52$, $p < .001$).³ Under process-focused thoughts, more planning is reported for strong ($M = 2.56$) than for weak ($M = 1.36$) ad arguments, supporting the idea that strong arguments allow the formation of action-

³The planning mediator also shows a main effect of thought focus ($F(1, 105) = 15.60$, $p < .001$; $M_{\text{outcome}} = 1.30$ vs. $M_{\text{process}} = 1.96$) and a main effect of argument strength ($F(1, 105) = 13.91$, $p < .001$; $M_{\text{weak}} = 1.31$ vs. $M_{\text{strong}} = 1.94$).

outcome linkages necessary to develop a plan (simple effect $F(1, 105) = 25.01$, $p < .001$). Under outcome-focused thought, planning is relatively low across both conditions ($M_{\text{strong}} = 1.32$, $M_{\text{weak}} = 1.27$; simple effect $F < 1.0$), consistent with the idea that outcome-focused thought does not generate planning.

We expect spontaneous planning to mediate the interaction found above for BI in hypothesis 1. Consistent with the full-model results, subjects who completed the open-ended question show a simple effect of argument strength on BI within process focus ($F(1, 105) = 13.98$, $p < .01$) but not outcome focus ($F < 1.0$). Further, the effect of argument strength within the process-focused storyboard order is mediated by planning. When the plan covariate is added to the model predicting BI, the covariate has a significant effect ($F(1, 105) = 25.39$, $p < .001$), and the effect of the argument strength manipulation drops substantially (to $F(1, 105) = 2.50$, $p = .12$). The Z-tests indicate that the indirect effect of argument strength through planning to behavioral intentions is significant or, analogously, that the effect of argument strength on BI is significantly reduced ($Z = 3.05$, $p < .05$; Kenny, Kashy, and Bolger 1998). Of course, within outcome-focused instructions, there is no argument strength effect to be mediated by planning. Thus, we have an overall pattern of moderated mediation in the low to moderate involvement conditions: argument strength operates through planning to influence behavioral intentions under process-focused conditions, but argument strength influences neither behavioral intentions nor planning under outcome-focus conditions, supporting hypothesis 3.

Discussion of Results from Experiment 2

This experiment provides two main extensions beyond experiment 1. First, we are able to manipulate participants' thought focus by modifying the scenes in a storyboard advertisement, a favorable result for advertising practitioners. An ad emphasizing the process of using the product results in more process-focused thought than an ad emphasizing usage outcomes. As in experiment 1, the between-condition difference in the content of thought involves primarily whether participants considered the process of using the advertised product. Participants in both conditions considered final outcomes, consistent with the notion that process-focused simulations form action-outcome linkages.

Our experiment again replicates the interactive effect of argument strength and thought focus on behavioral intentions (hypothesis 1). Participants are more sensitive to argument strength in response to a process-focused storyboard ad than they are in response to an outcome-focused storyboard ad. More notably, in this study, thought coding mediation analyses trace the effect of process-focused mental simulations through plan formulation to behavioral intentions (hypothesis 3). When watching a process-focused ad with strong arguments, participants apparently think about the behavioral steps necessary to achieve the benefits of using the product, creating a plan. They are then more willing to take these planned behavioral steps and indicate

higher behavioral intentions. On the other hand, when the behavior's ability to achieve the outcome is weak, consumers appear to be unwilling to formulate an actionable plan, resulting in significantly lower behavioral intentions. Finally, in the outcome-focused thought conditions, evidence of spontaneous planning is uniformly low, regardless of argument strength. Thus, process-focused thought appears to function as a unique context for responding to advertising, facilitating sensitivity to argument strength through the relatively spontaneous generation of plans in the absence of heightened involvement (or presumably high elaboration).

GENERAL DISCUSSION

Summary

We demonstrate that the focus of thought, specifically whether thoughts focus on the process of using an advertised product or on the outcome of use, matters for determining reactions to advertising. Under low to moderate involvement, our studies reveal a differential effect of argument strength if participants focus on the process of using the product. It appears that process-focused thought can enhance intentions due to the creation of a plan in response to strong ad arguments. On the other hand, in the presence of weak ad arguments, process focus hurts behavioral intentions. Even under low to moderate involvement, people constructing a plan appear to be able to discriminate between strong and weak arguments, rejecting the process the ad is meant to promote. We find the reverse pattern of results under conditions of high involvement: argument strength has an effect on behavioral intentions under outcome focus but not under process focus. Thus, across our involvement conditions, outcome-focused thought conforms to the predictions of dual-process models of persuasion, with consumers responding to argument strength only in high involvement conditions. However, under these same high involvement conditions, process-focused thought appears to distract attention away from weak arguments, leading to enhanced persuasion, regardless of argument strength.

Limitations and Future Research

We find that under conditions of high involvement, process-focused thought reduces the differential effect of strong versus weak arguments found in the low to moderate involvement conditions. This result deserves more research attention, as our study 1 is limited by a lack of thought protocols or other process measures exploring the underlying processes at work under high involvement. One possible mechanism for this apparent distraction effect is narrative transportation, where individuals become immersed in a story (Green and Brock 2000) or mental simulation (Escalas 2004). One feature of narrative transportation is reduced negative cognitive responding. It would be interesting to explore whether, under conditions of high involvement, consumers are transported by their simulations and thus distracted from ad arguments.

We believe that another interesting area for future research is further elucidation of the planning processes we identify. Our theoretical assertions are based on the idea that process-focused thought will encourage different types of narratives in working memory, with different focal episodes from outcome-focused thought. More research is necessary to explore the cognitive processes underlying the planning mediator uncovered in our studies. Future research could also explore the impact of such planning processes on consumer decision making. For instance, it might be possible to increase the quality of consumer decisions, particularly in low elaboration situations, by increasing customers' abilities or motivation to evaluate purchase opportunities with respect to the relevant plans for purchase and use.

An additional limitation of our research is the use of a relatively narrow involvement manipulation, which we designed to exclusively target the amount of elaboration, without changing how participants responded to or evaluated the content of the ad. Future research could explore the robustness of our results across a variety of different involvement manipulations, such as those used in previous ELM studies. This research would benefit from the incorporation of more traditional involvement manipulation checks as well. Finally, our studies are limited by the use of fictitious ads and brands as well as self-reported behavioral intentions. Future research could also investigate robustness by investigating real ads and/or real purchase situations.

CONCLUSION

We conclude that the focus of thought is an important moderator of reactions to persuasion attempts. Process-focused thought may have advantages to customers under low to moderate elaboration, but these reverse under high elaboration, where outcome-focused thoughts are associated with more discerning consumers. Thus, customers who are unwilling or unable to diligently process message arguments may actually improve their decision outcomes simply by imagining the process of buying and using advertised products. In summary, favoring process- over outcome-focused thought may be a relatively low-cost way to become a better consumer.

APPENDIX A

THOUGHT FOCUS INSTRUCTIONS FROM EXPERIMENT 1

Process Instructions for Shampoo Product

While you are looking at the advertisement on the following screen, we would like you to imagine the PROCESS of using the shampoo being advertised. As you imagine, focus on how you would incorporate this shampoo into your daily routine. Imagine how you would feel if you used this shampoo EVERY DAY. That is, focus on the process of using the shampoo—focus on how you would feel as you used the advertised product.

Outcome Instructions for Shampoo Product

While you are looking at the advertisement on the following screen, we would like you to imagine the END BENEFITS that you would receive from the shampoo being advertised. As you imagine, focus on the benefits you would gain from using the shampoo. Imagine how you would feel if your looks improved as a result of the shampoo. That is, focus on the end result of using the shampoo—focus on how you would feel as a result of your using the advertised product.

Process Instructions for Vitamin Product

While you are looking at the advertisement on the following screen, we would like you to imagine the PROCESS of using the vitamins being advertised. As you imagine, focus on how you would incorporate the vitamins into your daily routine. Imagine how you would feel if you took these vitamins EVERY DAY. That is, focus on the process of using the vitamins—focus on how you would feel as you used the advertised product.

Outcome Instructions for Vitamin Product

While you are looking at the advertisement on the following screen, we would like you to imagine the END BENEFITS that you would receive from the vitamins being advertised. As you imagine, focus on the benefits you would gain from using the vitamins. Imagine how you would feel if your health improved as a result of the vitamins. That is, focus on the end result of using the vitamins—focus on how you would feel as a result of your using the advertised product.

APPENDIX B

AD TEXT FROM EXPERIMENT 1

Shampoo Product Ad Text with Strong Ad Arguments

Saloncare shampoo involves a radically new formulation, enhanced with all natural ingredients. Research tests conducted in government laboratories prove that people who use Saloncare shampoo eliminate tiny flakes left by other shampoos that result in a flat, dirty appearance. Saloncare shampoo will make your hair look its best. That's why Saloncare is your best choice!

Shampoo Product Ad Text with Weak Ad Arguments

Saloncare shampoo is enhanced with natural ingredients. Research tests in our labs indicate that some people who use Saloncare shampoo eliminate tiny flakes left by other shampoos. Saloncare shampoo will make your hair look good. That's why Saloncare is your best choice!

Vitamin Product Ad Text with Strong Ad Arguments

Millennium is a new vitamin designed especially for college students. Studies run at Harvard University Medical school prove that Millennium increases energy and mental concentration without harmful side effects. Millennium is a healthy way to improve your performance at school!

Vitamin Product Ad Text with Weak Ad Arguments

Millennium is a new vitamin designed especially for college students. Studies run in Millennium's laboratories indicate that Millennium may increase energy and mental concentration for some users with limited side effects. Millennium is a healthy way to improve your performance at school!

APPENDIX C

MEASURES FOR EXPERIMENTS 1 AND 2

Behavioral Intentions

How likely is it that you would buy this product? (definitely would not/definitely would)

How likely would you use a free sample of this product? (not at all likely/very likely)

Process Manipulation Check

While viewing the ad, how much did you think about using the product on a daily basis? (not at all/very much)

While viewing the ad, how much did you think about the possibility of changing your current habits or behavior in order to use the product effectively? (not at all/very much)

While viewing the ad, how much did you think about incorporating the shampoo into your daily routine? (not at all/very much)

Outcome Manipulation Check

Please indicate how much you thought about the end benefits or results of the shampoo while you were viewing the ad. (not at all/very much)

While viewing the ad, how much did you think about how you would feel after you had used the shampoo? (not at all/very much)

Argument Strength Manipulation Check

Please rate the reasons given (as a set) for why you should buy the product. (not at all convincing/very convincing)

Please rate the strength of the reasons the ad gave for buying the product. (very weak/very strong)

Involvement Strength Manipulation Check (Personal Relevance)

Was the ad written with you in mind? (not at all/very much)

Did the ad relate to you personally? (not at all/very much)

Plan Measure

To what extent have you figured out exactly how you might buy the vitamins/shampoo? (not at all/very much)

To what extent do you have a plan for how you might buy the vitamins/shampoo? (not at all/very much)

To what extent have you figured out exactly how you might use the vitamins/shampoo? (not at all/very much)

To what extent do you have a plan for how you might use the vitamins/shampoo? (not at all/very much)

Coding Measures Reflecting Spontaneous Planning (Experiment 2)

To what extent do these thoughts reflect or make mention of a plan (that is, a method for doing something worked out in some detail before it is begun)? (not at all/very much)

To what extent do these thoughts describe any step-by-step process? (not at all/very much)

Ad Quality Measure (Experiment 2)

Was the ad you just saw low or high in quality? (low quality/high quality)

How professional was the ad you just saw? (not at all/very much)

APPENDIX D

STORYBOARD STIMULI AND AD TEXT FROM EXPERIMENT 2

Scene 1: Woman Washing Hair

Process and outcome title: A woman washes her hair in the shower.

Weak arguments: Saloncare shampoo is enhanced with natural ingredients that you can feel working on your hair when you shampoo.

Strong arguments: Saloncare shampoo involves a radically new formulation, enhanced with natural ingredients that you can feel working on your hair when you shampoo.

Scene 2: Woman Washing Hair Again in Process/ Woman with Man in Outcome

Process title: The woman continues to wash her hair in the shower.

Outcome title: The woman interacts with a young man.

Weak arguments: Research tests in our labs indicate that

some people who use Saloncare shampoo actually eliminate tiny flakes left by other shampoo.

Strong arguments: Research tests conducted in government laboratories prove that the vast majority of people who use Saloncare shampoo actually eliminate tiny flakes left by other shampoo.

Final sentence added to above arguments, depending on condition:

Process: Feel the difference as your hair rinses clean clear through.

Outcome: Feel the difference—your hair is shiny and clean.

Scene 3: Woman with Man

Process title: The woman interacts with a young man.

Outcome title: The woman continues to interact with the man.

Weak arguments: People will notice that your hair looks good when you use Saloncare shampoo.

Strong arguments: People will notice that your hair looks its best when you use Saloncare shampoo.

Scene 4: Product Shot

That's why Saloncare is your best choice!

[Dawn Iacobucci served as editor for this article.]

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