

**SELF-REFERENCING AND PERSUASION:  
NARRATIVE TRANSPORTATION VERSUS ANALYTICAL ELABORATION**

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## **ABSTRACT**

This paper contrasts narrative self-referencing with non-narrative (analytical) self-referencing. We propose that narrative self-referencing persuades through transportation, where people become absorbed in a story, in this case, in their story-like thoughts (Green and Brock 2000). When ad viewers are transported by these narrative thoughts, persuasion is not negatively affected by weak ad arguments. On the other hand, analytical self-referencing persuades via more traditional processing models, wherein cognitive elaboration is enhanced by relating incoming information to one's self or personal experiences, which results in a differential persuasive effect of strong versus weak arguments. We also propose that ad skepticism moderates the effect of narrative transportation. Our assertions are tested in three experiments in the context of mental simulation as a form of narrative self-referencing.

Self-referencing occurs when one processes information by relating it to one's self or personal experiences (Burnkrant and Unnava 1995). Some consumer research has found that self-referencing serves to increase product feature and ad message elaboration, leading to enhanced persuasion when message arguments or product features are strong, but not when they are weak (e.g., Burnkrant and Unnava 1989). Conversely, other research has found that self-referencing can serve to distract attention away from and thus eliminate the differential effects of strong versus weak arguments (e.g., Sujan, Bettman, and Baumgartner 1993). Recently, consumer research has examined variations in the nature of self-referencing. Krishnamurthy and Sujan (1999) find the persuasive effects of anticipatory self-referencing (i.e., mental simulation) are facilitated by ads with high degrees of contextual detail. On the other hand, retrospective self-referencing (i.e., autobiographical memory retrieval) is more persuasive with low degrees of contextual detail. This paper looks at another variation in the nature of self-referencing: the degree to which self-referent thoughts are narratively structured, that is, in the form of a story. This variation is interesting because it moderates the effects of self-referencing on persuasion.

We begin with a brief review of the relevant literature on self-referent processing; we propose that there are two distinct types of self-referencing: analytical and narrative. Analytical self-referencing persuades through dual cognitive response processes (e.g., ELM, Petty, Cacioppo, and Schumann 1983). These traditional elaboration-based persuasion models assert that self-referencing facilitates elaboration of incoming information, enhancing message recall and ad and brand attitudes, when the ad arguments are strong (e.g., Burnkrant and Unnava 1989). On the other hand, narrative processing has been shown to affect persuasion through a mechanism called transportation, which is defined as "immersion into a text" (Green and Brock 2000, p. 702; Gerrig 1994). Narrative transportation leads to persuasion through reduced negative cognitive

responding, realism of experience, and strong affective responses (Green and Brock 2000), mechanisms that differ from the traditional elaboration-based explanations for self-referencing effects.

Our hypotheses are tested in three experiments. The first examines the effects of narrative and analytical self-referencing on persuasion and examines whether transportation is at work in the case of narrative self-referencing. The second and third experiments identify a moderator of narrative transportation, skepticism towards advertising, and test whether people who have a tendency to respond to advertising with skepticism (experiment 2) or are instructed to behave as an ad critic (experiment 3) are less likely to be transported by an advertisement that encourages narrative self-referencing.

### **SELF-REFERENT PROCESSING**

In cognitive psychology, self-referencing is conceptualized as the cognitive processes individuals use to understand incoming information that pertains to them by comparing it to self-relevant information stored in memory (Debevec and Romeo 1992). Studies in psychology have demonstrated that self-referencing enhances learning and recall of information (e.g., Klein and Loftus 1988; Rogers, Kuiper, and Kirker 1977). The predominant explanation for these findings is that self-referencing facilitates elaboration of incoming information because the self is a highly organized, complex memory structure (Greenwald and Banjai 1989; Klein, Loftus, and Schell 1994).

In consumer research, self-referencing has been found to affect persuasion (e.g., Burnkrant and Unnava 1995; Debevec and Romeo 1992; Sujana et al. 1993). This research has identified some of the conditions for when self-referencing will and will not enhance persuasion. Burnkrant

and Unnava (1989) find that self-referencing increases product feature and ad message elaboration and recall, but only enhances persuasion when message arguments or product features are strong, not weak. These results support the theory that self-referencing facilitates elaboration of incoming information; when the information is related to the highly complex, well-organized self-concept, elaboration is increased, and strong arguments are favored over weak arguments. Meyers-Levy and Peracchio (1996) and Burnkrant and Unnava (1995) also find that self-referencing only enhances persuasion up to a point. That is, moderate levels of self-referencing enhance persuasion, while too high levels of self-referencing actually harm persuasion. Parallel to the resource matching hypothesis (Anand and Sternthal 1989), too much self-referencing, like too much elaboration, leads to critical (or unrelated) thought processes that hurt persuasion, leading to an inverted U relationship. This research indicates that self-referencing increases elaboration, initially enhancing persuasion (with strong arguments), but later reduces persuasion when elaboration reaches too high levels, either from too much self-referencing (Meyers-Levy and Peracchio 1996) or from self-referencing plus other elaboration enhancements (Burnkrant and Unnava 1995).

In a different stream of research, Sujan et al. (1993; Baumgartner, Sujan, and Bettman 1992) evoke self-referencing by eliciting autobiographical memories, defined as the recollection of earlier events from one's life (Baddeley 1990). In these studies self-referencing does not enhance product elaboration, but rather distracts attention away from and thus eliminates the differential effects of strong versus weak arguments. Thinking about the self is shown to be an attention-consuming task; with an increase in self-focus, attention to the environment diminishes and there may be interference with the encoding of new information (Sujan et al. 1993; see also Mick 1992). More attention is directed towards the autobiographical episode, while thoughts about, and memory for, product features declines. In the autobiographical memory studies,

persuasion is still enhanced as a result of self-referencing, but the effect is due to affect transfer that occurs when the link between the brand and the autobiographical memory is made explicit in the ad message. When participants recall autobiographical memories, they generate positive affect, which is linked to the brand. From this research, it appears that an important aspect of self-referent processing is its affective nature; over time the majority of autobiographical memories have strong affect associated with them because emotionally involving incidents are those that people remember best (Brewer 1986).

### **NARRATIVE SELF-REFERENCING**

One important distinction between the autobiographical memory self-referencing research and the other studies discussed above is that autobiographical memories are usually in the form of stories or narratives (Polkinghorne 1991, Fiske 1993). Autobiographical memories can be considered part of a larger cognitive category, that of mental simulation, which is the imitative mental representation of some event or series of events, including rehearsals of likely future events, fantasizing about less likely future events, realistically re-experiencing past events, or reconstructing past events, mixing in hypothetical elements (Taylor and Schneider 1989). When we simulate events, we frequently think about our own actual or potential behaviors, creating behavioral scenarios, similar to stories, in which we are the main character. Krishnamurthy and Sujan (1999) refer to self-relevant mental simulation as anticipatory self-referencing and autobiographical memory retrieval as retrospective self-referencing. They treat both anticipatory and retrospective self-referencing as forms of episodic processing, a view consistent with our categorization of mental simulation and autobiographical memory retrieval as forms of narrative self-referencing.

Narrative processing has been shown to affect persuasion through a mechanism called transportation, which is defined as "immersion into a text" (Green and Brock 2000, p. 702; Gerrig 1994). While "elaboration leads to attitude change via logical consideration and evaluation of arguments," transportation leads to persuasion through reduced negative cognitive responding, realism of experience, and strong affective responses (Green and Brock 2000, p. 702). Thus, under conditions of narrative transportation, affective responses influence persuasion, rather than systematic analysis of message strength. The results found in the Sujan et al. (1993, Baumgartner et al. 1992) papers are consistent with how transportation is said to affect persuasion, in this case, through affect transfer. When one self-references by thinking about an episode from one's past, one is "transported" by the autobiographical story, enhancing persuasion without increasing elaboration on the ad message.

Consumer research on narrative processing in a non self-referencing context is also consistent with transportation theory. Specifically, Adaval and Wyer (1998) find that narratives improve evaluations of vacations. These effects are more pronounced with instructions to imagine and when pictures are included with the text, which both may be considered as an enhancement to narrative transportation. The effects are also more pronounced when negative information is included in the vacation description. In this case, narrative transportation distracts attention away from the negative information, increasing the difference in persuasion between narrative and non-narrative text. In these studies, narratives also enhance affective responses, which is again consistent with narrative transportation. West, Huber, and Min's (2004) story-writing research also supports transportation theory. These authors find that story-writing favorably affects artwork preferences, in some cases both with and without a self-focus.

## DEVELOPMENT OF HYPOTHESES

The primary goal of this paper is to identify narrative self-referencing, exploring the mechanisms through which this type of self-referencing persuades. Narrative self-referencing differs from analytical self-referencing, where research finds a differential effect of argument strength on attitudes due to increased ad and product elaboration, which occurs through association with the complex self-concept. In analytical self-referencing studies, the ad text is written in second person (“you”) with a few requests to recall generic, repeated incidents (Burnkrant and Unnava 1995, Menon 1993) or with a photo taken from the consumer’s perspective (Meyers-Levy and Peracchio 1996). We assert that self-referencing in response to these manipulations does not evoke stories, rather it enhances ad elaboration by relating incoming information to the complex self-structure leading to logical argument evaluation, where strong arguments are favored over weak arguments. On the other hand, autobiographical memories are a form of narrative self-referencing. Here, research finds weak arguments do not significantly harm persuasion, because thought is distracted away from arguments about the product’s features and onto the autobiographical memory involving the self. The story-like memory “transports” the individual and less attention is paid to argument strength. Thus, we hypothesize that the degree of narrative thought moderates the impact of argument strength on persuasion:

**H1:** Differences in argument strength will have a greater effect on ad attitudes and brand evaluations under conditions of analytical self-referencing compared to narrative self-referencing (and narrative self-referencing will be persuasive regardless of argument strength).

Based on narrative transportation theory, we propose that the underlying reason for the relationships proposed by hypothesis 1 is that consumers engaged in narrative self-referencing become lost in or absorbed by their thoughts. Transportation leads to persuasion through reduced

negative cognitive responding and strong affective responses (Green and Brock 2000).

Transportation distracts people from thinking analytically about the message strength in an advertisement and evokes positive feelings that may be associated with the brand being advertised (if the narrative is favorable). We propose above that transportation is the mechanism through which narrative self-referencing affects ad attitudes and brand evaluations. In hypothesis 2, we formalize the notion that narrative self-referencing leads to transportation (hypothesis 2A) and distracts attention away from critical evaluation of the product and ad (hypothesis 2B).

**H2A:** Narrative self-referencing will lead to narrative transportation, regardless of argument strength.

**H2B:** Narrative self-referencing will lead to less analytical evaluation, regardless of argument strength.

Not all individuals will be equally likely to be transported by advertisements designed to evoke narrative self-referencing. In particular, consumers who are skeptical about the persuasive intentions of the advertiser are more likely to be critical of an ad and evaluate it in a more analytical fashion, rather than becoming caught up in, and hence transported by, advertisements. We expect this to be true for consumers who have a general tendency to be skeptical about advertising and also in those cases where a consumer evaluates the ad in a critical fashion due to any number of situational factors. Consumers realize that ads are meant to be persuasive; they develop persuasion knowledge that helps them “identify how, when, and why marketers try to influence them” (Friestad and Wright 1994, p. 1). In the process of developing persuasion knowledge, consumers develop beliefs about their own coping tactics. One such coping tactic may be to avoid being drawn into an advertisement, that is, avoid being transported by the ad, perhaps by remaining detached from and skeptical of the advertisement. Consumers who have developed a general tendency towards disbelief of advertising claims (Obermiller and Spangenberg 1998) may

be more likely to use these distancing coping mechanisms and therefore will be less likely to be caught up in ads designed to evoke narrative self-referencing. Similarly, there may be situational factors that cause even those consumers not predisposed to be skeptical to remain detached from an ad, such as negative prior brand attitudes, negative mood, lack of source credibility, not being a member of the target market, etc. In those situations where a consumer processes an ad with skepticism, it is unlikely that narrative transportation will occur, and consumer thoughts will tend to be a critical analysis of the ad, consistent with analytical self-referencing. Thus, this hypothesis examines the interaction of ad skepticism and argument strength, with the prediction that the ad designed to evoke narrative self-referencing will not be able to transport individuals who are high in ad skepticism. The high skepticism individuals will engage in analytical self-referencing rather than narrative self-referencing, resulting in a differential effect of argument strength on persuasion. On the other hand, for the less skeptical participants, narrative transportation will result in equally high levels of persuasion, regardless of argument strength.

**H3:** In response to an advertisement intended to evoke narrative self-referencing, advertising skepticism will moderate the favorable effect of narrative transportation for ads with weak arguments.

Experiment 1 tests hypotheses 1 and 2, while experiments 2 and 3 examine hypotheses 2 and 3.

## **EXPERIMENT 1**

This experiment is designed to examine the differential effect of analytical versus narrative self-referencing across varying argument strength levels in a print advertising setting.

## Development of Manipulations

Our study starts with the experimental manipulations used by Burnkrant and Unnava (1995, 1989) and Sujan et al. (1993). Burnkrant and Unnava's (1995, 1989) manipulation has two parts: ad messages address participants directly with second person pronouns (e.g., "you") versus third person (e.g., "one") and also encourage limited recall of past product experiences (e.g., "you may remember feeling that razor technology can never be improved," 1989, p. 631). While their recall instructions do not appear likely to evoke experiential, episodic processing that would result in stories or narratives, any experiential recall represents a potential confound between analytical and narrative self-referencing. Therefore, our analytical self-referencing manipulation only employs second-person pronouns. Sujan et al. (1993) use an ad message that encourages participants to retrieve an autobiographical memory in the context of a fictitious wine product. In addition, the authors manipulated a specific link to the brand, because autobiographical memories may often have nothing to do with the brand being advertised. In order to avoid the complications of autobiographical memories that must be manipulated in order to form a link with the brand being advertised, as well as to extend the narrative effect to a new type of narrative processing, our study manipulates narrative self-referencing by asking participants to imagine themselves using the product. It is generally accepted that mental simulation is usually in the form of stories or narratives (e.g., Fiske 1993; Polkinghorne 1991).

In addition to these two self-referencing manipulations, we also include a third, no self-referencing condition. This will allow us to examine the effects of strong and weak arguments under conditions of no self-referencing, because the findings of Burnkrant and Unnava (1989) and Sujan et al. (1993) also differ on this dimension. The former finds no differential effect of argument strength under conditions of low self-referencing while the latter finds significant

differences, with strong arguments more persuasive than weak arguments when autobiographical recall is not encouraged. These conflicting results seem to indicate that the Burnkrant and Unnava (1989) participants were less involved in the experimental task than the Sujan et al. (1993) participants. Finally, consistent with both Burnkrant and Unnava (1989) and Sujan et al. (1993), we manipulate strong versus weak ad arguments embedded in the ad text (see appendix A).

## **Method**

*Participants.* Fifty-eight undergraduate introductory marketing students from a private, Northeastern university and 195 undergraduate introductory marketing students from a public, Southwestern university participated in this study in exchange for experimental credit toward the fulfillment of a course requirement, for a total of 253 participants. There were no significant differences between the two groups on any of the variables of interest, so the data was merged into one set for analysis.

*Procedure.* This experiment is based on the presentation of stimuli and collection of questionnaire responses via a computer program written in Visual Basic®. Participants are presented with the color print ad stimulus for a fictitious brand of running shoe. The ad shows a slightly out of focus picture of a man jogging through a park, with a close up of the shoes superimposed on top of the trees. There are six versions of ad text, placed at the bottom of the screen, which manipulate self-referencing and argument strength (see appendix A). The ad is followed by a series of scale questions, again answered on a 0 to 100 sliding scale. The study ends with a debriefing statement and takes approximately one-half hour to complete.

*Dependent Variables.* After viewing the print ad, participants were first asked to type a list of all the thoughts they had while they looked at the ad. The thought protocols were later coded by

two independent coders blind to the hypotheses, using three five-point scale items designed to measure the degree to which the thought protocols are in the form of a story (“To what extent do these thoughts consist of actors engaged in actions to achieve goals?” “To what extent do these thoughts provide you with insight about the personal evolution or change in the life of a character?” and “To what extent do these thoughts have a well delineated beginning (initial event), middle (crisis or turning point), and ending (conclusion)?” Escalas and Bettman 2000). The three items were averaged for each coder to form one narrative score for each coder for each participant. The two coders’ average narrative scores are significantly correlated ( $r = .56$ ,  $p < .001$ ), so they were averaged to form one narrative score per participant ( $\alpha = .71$ ). The thought protocols were also coded by two different independent coders to examine the focus of the participants’ thoughts. First, the coders examined the thought protocols for the degree to which they focused on the running shoe. Next, they coded the thought protocols into the following categories: positive, neutral, and negative ad-focused thoughts, positive, neutral, and negative brand focused thoughts, and other thoughts (not focused on either the ad or the brand, e.g. “I thought about my cat”). Interjudge reliability was 52% for the proportion of shoe focused thoughts and 81% for the proportion of negative brand thoughts (counterarguments; see below). Disputes were resolved by discussion with the two coders and the author (blind to the experimental conditions).

After typing in their thoughts, participants filled out a reduced set (29 items) of the Goodstein, Edell, and Moore’s (1990) 57-item feelings scale, from which we derived an index of positive and negative emotions (15 positive items,  $\alpha = .93$ , 14 negative items,  $\alpha = .85$ ). Next, ad attitudes ( $A_{Ad}$ ) consist of two items anchored by very favorable/very unfavorable and very bad/very good ( $\alpha = .94$ ). Brand attitudes were measured with the same anchors and behavioral intentions were measured by one willingness to try on the shoe item and one likelihood of

purchase item. These four brand-related items were averaged to form one brand evaluation measure (BE,  $\alpha = .88$ ).<sup>1</sup> Finally, participants answered three items designed to measure the degree to which the participant felt transported by the ad ("I was mentally involved in the ad," "while thinking about the ad, I could easily picture the events in it taking place," and "I could picture myself in the scene shown in the ad,"  $\alpha = .82$ , adapted from Green and Brock 2000).

*Manipulation Checks.* Two items check the argument strength manipulation, anchored by weak/strong and not at all convincing/very convincing ( $\alpha = .87$ ). In order to assess the degree of self-referencing (SR), participants completed two items ("the ad related to me personally" and "to what extent did your thoughts focus on you personally?"  $\alpha = .65$ , Burnkrant and Unnava 1995).

*Covariates.* A series of questions asked potential covariates: attitude towards running, attitude towards running shoes, amount run (times per week, miles per week), etc., plus demographic information. Only running shoe attitude proved to be significant in any of the models and is therefore used as a covariate throughout all subsequent analyses (the average of two scale items, "What is your attitude towards running shoes in general?" anchored by very unfavorable/very favorable, and "My opinion of running shoes in general is:" anchored by very negative/very positive,  $\alpha = .96$ ).

## Results

This study is a 3x2 between-subjects design, crossing self-referencing (no SR vs. analytical SR vs. narrative SR) with argument strength (strong vs. weak).

*Manipulation Checks.* Participants in the self-referencing encouraged conditions (analytical SR and narrative SR) report significantly more self-focused thoughts compared to the

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<sup>1</sup> The stimulus ads in all our studies are for fictitious brands, therefore it is unlikely that brand attitudes and

no self-referencing condition (no SR = 37.50, analytical SR = 47.42, narrative SR = 48.88;  $F(2, 242) = 8.03, p < .001$ ; pre-planned contrast, no SR < analytical SR = narrative SR:  $F(2, 242) = 15.50, p < .001$ ). We also find a marginally significant main effect of argument strength on self-referencing ( $F(1, 242) = 3.37, p = .07$ , weak = 42.20, strong = 47.31). The interaction of argument strength and self-referencing type is not significant. The argument strength manipulation check is significant (strong = 51.83, weak = 46.38;  $F(1, 242) = 4.30, p < .05$ ). In this model, self-referencing type is not significant, although the interaction of self-referencing type by argument strength is significant, with the pattern of the means consistent with hypothesis 1 and 2B ( $F(2, 242) = 3.19, p < .05$ ; strong arguments are rated as better in the no SR [strong = 52.34, weak = 40.61, planned contrast:  $F(1, 242) = 8.99, p < .01$ ] and in the analytical SR conditions [strong = 57.00, weak = 46.98, contrast:  $F(1, 242) = 3.80, p = .05$ ], but not in the narrative SR condition [strong = 49.54, weak = 51.29, contrast:  $F(1, 242) < 1.0, n.s.$ ]).

*Hypothesis 1.* This hypothesis examines whether there is a differential effect of argument strength on  $A_{Ad}$  and BE under conditions of analytical self-referencing but not under narrative self-referencing. In terms of main effects, argument strength is significant in the model of  $A_{Ad}$  (weak = 39.61, strong = 45.41,  $F(1, 242) = 4.55, p < .05$ ), but not BE (weak = 44.20, strong = 48.23,  $F(1, 242) = 2.23, p = .14$ ). Additionally, self-referencing type is significant in the model of both  $A_{Ad}$  and BE (no SR = 37.26, analytical SR = 43.15, narrative SR = 46.83;  $F(2, 242) = 4.40, p < .05$ ; and no SR = 40.84, analytical SR = 46.07, narrative SR = 51.37;  $F(2, 242) = 5.61, p < .01$ , respectively). These main effects are qualified by the significant interaction of self-referencing type by argument strength in the model for  $A_{Ad}$  ( $F(2, 242) = 3.08, p < .05$ ) and marginally for BE ( $F(2, 242) = 2.32, p < .10$ ; see table 2 and figure 1).

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behavioral intentions measure distinct constructs.

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Hypothesis 1 makes specific predictions about the pattern of results across four of the six conditions. Specifically, we expect the effect of argument strength to be significant under conditions of analytical self-referencing, but not significant under conditions of narrative self-referencing. Pre-planned contrasts support this hypothesis for both  $A_{Ad}$  and BE (see table 2). These results are consistent with narrative transportation distracting attention away from weak arguments, while analytical self-referencing appears to increase elaboration on the ad's arguments. Hypothesis 1 does not address the no self-referencing condition, however, we find that in the case of  $A_{Ad}$ , argument strength has an effect, while in the case of BE, it does not (see table 2). The pattern of results seems to indicate that strong ad arguments favorably influence how participants not engaged in self-referencing evaluate the ad, but this effect does not extend to the brand.

*Hypothesis 2A.* This hypothesis proposes that narrative self-referencing will lead to narrative transportation regardless of argument strength. First, it is important to show that the self-referencing manipulation affects the degree to which participants engage in narrative processing, because participants cannot be transported by their thoughts if the thoughts are not in the form of a story. The thought-coding results find that participants in the narrative SR condition engaged in significantly more narrative processing than those in the other two conditions (no SR = 1.22, analytical SR = 1.24, narrative SR = 1.30;  $F(1, 242) = 3.40, p < .05$ ; pre-planned contrast, no SR = analytical SR < narrative SR:  $F(1, 242) = 3.99, p < .05$ ). In a direct test of our hypothesis, we find a significant effect of self-referencing type on the narrative transportation scale measure (no SR = 44.52, analytical SR = 50.84, narrative SR = 54.58;  $F(1, 243) = 3.0, p = .05$ ; pre-planned contrast,

no SR = analytical SR < narrative SR:  $F(2,242) = 6.99, p < .01$ ). Neither argument strength nor the interaction of argument strength by self-referencing type have a significant effect on narrative transportation (all  $F(1, 242) < 1.09, n.s.$ ). In order to explore hypothesis 2A further, we looked at the relationship between transportation and the positive and negative feelings experienced by participants while they viewed the ad. Consistent with narrative transportation theory, we find a significant positive effect of transportation on positive emotions ( $F(1, 242) = 156.31, p < .001, \beta = .43$ ) and a significant negative effect on negative emotions ( $F(1, 242) = 52.33, p < .001, \beta = -.24$ ). Thus, it appears becoming absorbed in one's mental simulation evokes positive feelings and inhibits negative feelings (in the context of this study). Finally, the narrative transportation scale measure is positively correlated with both ad attitudes ( $r = .62, p < .001$ ) and brand evaluations ( $r = .55, p < .001$ ).

*Hypothesis 2B.* This hypothesis proposes that narrative self-referencing will lead to lower levels of analytical processing (typified by counterarguing and a focus on product features). Analysis of the thought protocol coding reveals a significantly higher proportion of thoughts focused on the running shoe in the ad for those participants in the no SR and analytical SR conditions, compared to the narrative SR condition (no SR = .32, analytical SR = .31, narrative SR = .17,  $F(2, 242) = 5.33, p < .01$ ; pre-planned contrast, no SR = analytical SR > narrative SR:  $F(1, 242) = 10.66, p < .001$ ). There were no other significant effects on shoe focus. Likewise, the model of the proportion of negative brand focused thoughts (counterarguing) shows significantly fewer counterarguments in the narrative self-referencing condition (no SR = .16, analytical SR = .19, narrative SR = .12,  $F(2, 242) = 5.31, p < .01$ ; pre-planned contrast, no SR = analytical SR > narrative SR:  $F(1, 242) = 7.17, p < .01$ ). The proportion of counterarguments is negatively correlated with both ad attitudes ( $r = -.21, p < .001$ ) and brand evaluations ( $r = -.41, p < .001$ ).

There were no other significant effects in this model, nor do we find any differences in the total number of thoughts (or any other thought-coding measures) across any of the four conditions.

### **Discussion of Experiment 1 Results**

This experiment demonstrates that different types of self-referencing persuade via different mechanisms. We are able to manipulate self-referencing to encourage either narrative or analytical processing in a print advertising setting. Under conditions of narrative processing, self-referencing serves as a distraction from message strength evaluation, resulting in enhanced ad attitudes and brand evaluations even when ad arguments are weak. Under conditions of analytical processing, self-referencing serves as to enhance elaboration such that only strong ad arguments are persuasive (hypothesis 1). The experiment finds support for the idea that narrative self-referencing persuades as a result of narrative transportation (hypothesis 2A), with more compelling or "transporting" stories leading to less focus on the brand and fewer counterarguments (hypothesis 2B). Experiment 2 will explore these relationships further, testing whether the individual difference factor ad skepticism is able to moderate the effects of narrative transportation.

## **EXPERIMENT 2**

This experiment is designed to examine whether consumers who are distrustful of marketers' intentions will be less likely to be transported by an ad designed to evoke narrative self-referencing (hypothesis 2A). This study also tests whether "turning off" transportation in this manner harms persuasion when ad arguments are weak (hypothesis 3), consistent with analytical self-referencing.

## Method

*Participants.* One-hundred thirty-two undergraduate introductory marketing students from the same public, Southwestern university in experiment 1 participated in this study in exchange for experimental credit toward the fulfillment of a course requirement. Half of these participants were later eliminated from the data set when we used a quartile split on ad skepticism to dichotomize our data, leaving 66 participants.<sup>2</sup>

*Procedure.* This experiment utilizes the same computer-based methodology as that used in experiment 1. Only deviations from that procedure will be discussed. Rather than a print ad for running shoes, the program presented participants with a print ad for shampoo, with a photo of shampoo bottles for an unknown brand, “Saloncare.” In all conditions, the ad text encouraged mental simulation of using the shampoo to obtain clean, shiny hair, similar to the narrative SR condition in experiment 1. Argument strength was varied in the ad text (see appendix B; based on Escalas and Luce 2003).

*Dependent Variables.* Compared to the first experiment, we made two modifications: one, the removal of the thought protocols, which have been shown to have effects on subsequent dependent variables, and two, removal of the feelings items, which also intervened between the ad stimulus and the primary dependent variables. Participants completed the same two items for ad attitudes ( $\alpha = .90$ ), and the same four brand-related items for the brand evaluation measure ( $\alpha = .87$ ). In this experiment, in addition to the three transportation items used in study 1, we added two additional items from the Green and Brock (2000) scale: “While viewing the ad, I had a vivid image of the shower,” and “While viewing the ad, I had a vivid image of myself washing my hair”

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<sup>2</sup> All analyses for this study were also conducted using the individual differences in advertising skepticism score as a continuous variable. The results show an analogous pattern, with the means of quartiles two and three falling in a linear pattern between quartiles one and four.

( $\alpha = .83$ ). We were able to add these two items to this particular experiment because all the participants were shown the ad encouraging mental simulation of product usage.

*Manipulation Checks.* To check the argument strength manipulation, we used the same two scale items used in experiment 1 ( $\alpha = .88$ ). In order to assess the degree of self-referencing, the same two items from experiment 1 were used ( $\alpha = .45$ , so the two items will be analyzed separately, Burnkrant and Unnava 1995).

*Independent Variables.* Immediately following the manipulation check items, we administered the five-item scale developed by Gaski and Etzel (1986) to measure ad skepticism. These scale items included such measures as “most advertising is very annoying” and “most advertising makes false claims,” anchored by strongly disagree (0) / strongly agree (100;  $\alpha = .73$ ). In the data analysis, we use a quartile split, eliminating the participants who scored in the middle two quartiles.

## Results

This study is a 2x2 between-subjects design, crossing measured ad skepticism (high vs. low) with manipulated argument strength (strong vs. weak).

*Manipulation Checks.* The argument strength manipulation check is the only significant main effect (strong = 55.64, weak = 46.75;  $F(1, 62) = 5.42, p < .05$ ). We also find a marginal interaction effect on argument strength ( $F(1, 62) = 3.08, p = .08$ ), with the pattern of results consistent with hypotheses 2B and 3: skeptical, weak is significantly lower (39.17) than skeptical, strong (55.00), non-skeptical, weak (59.18), and non-skeptical, strong (56.18; three contrasts vs. skeptical, weak:  $F(1, 62) > 4.85, p < .05$ ; remaining contrasts:  $F(1, 62) < 1.0, n.s.$ ). As expected, we find no significant effect of either ad skepticism, argument strength, or their interaction on our

two self-referencing manipulation check items (analyzed separately due to the low Cronbach alpha, all  $F(1, 62) < 2.0$ , *n.s.*, overall mean = 45.80); the stimulus ad is designed to evoke high levels of self-referencing in all participants.

*Hypothesis 2A.* This hypothesis asserts that narrative self-referencing will lead to narrative transportation, however, in this study, we expect that only the non-skeptical participants will engage in narrative self-referencing. Consistent with this prediction, we find that participants low in ad skepticism are more likely to be transported by the ad that encourages them to simulate using the shampoo, compared to those who are higher in ad skepticism (low ad skepticism = 57.05, high ad skepticism = 47.87;  $F(1, 62) = 4.02$ ,  $p = .05$ ). Further, and also as expected, this narrative transportation is positively correlated with both ad attitudes ( $r = .63$ ,  $p < .001$ ) and brand evaluations ( $r = .71$ ,  $p < .001$ ). The model for narrative transportation also includes a marginally significant interaction of ad skepticism by argument strength ( $F(1, 62) = 3.79$ ,  $p = .06$ ). Ad skeptics experience more transportation in the strong argument condition compared to the weak argument condition (weak = 43.22, strong = 52.79). Surprisingly, we find that those who are less skeptical of advertising experience more transportation in the weak argument condition compared to the strong argument condition (weak = 64.24, strong = 53.10). We revisit this issue in experiment 3, but we do not replicate this unexpected cross-over interaction in that study.

*Hypothesis 3.* This hypothesis examines the interaction of ad skepticism and argument strength on  $A_{Ad}$  and BE. We predict that an ad designed to evoke narrative self-referencing will lead to insensitivity to argument strength due narrative transportation for individuals who are low in ad skepticism, but the ad will not be able to transport individuals who are high in ad skepticism, reversing this effect of transportation. The argument strength effect is not significant in either the model of  $A_{Ad}$  or BE ( $F(1, 62) < 1.65$ , *n.s.*). Ad skepticism is significant in both models, with

highly skeptical individuals liking the ad and brand less than those who are generally less skeptical of advertising ( $A_{Ad}$ : high ad skepticism = 41.84, low ad skepticism = 51.87;  $F(1, 62) = 6.21, p < .05$ ; BE: high ad skepticism = 50.02, low ad skepticism = 60.68;  $F(1, 62) = 6.56, p < .01$ ). These main effects are qualified by the interaction of ad skepticism by argument strength in the models for  $A_{Ad}$  (marginal;  $F(1, 62) = 3.38, p < .10$ ) and BE (significant;  $F(1, 62) = 4.35, p < .05$ ; see table 3 and figure 2). In hypothesis 3 we predict an effect of argument strength under conditions of high ad skepticism, but not under conditions of low ad skepticism. Pre-planned contrasts support this hypothesis for both  $A_{Ad}$  and BE (see table 3). (Note that the difference between the strong argument, high skepticism and the two low skepticism conditions [weak arguments, low skepticism and strong arguments, low skepticism] in both models is not significant [all  $F(1, 62) < 2.0, n.s.$ ].)

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## Discussion of Experiment 2 Results

In this experiment, we are able to moderate the favorable effect of narrative self-referencing found in the weak argument condition in experiment 1 with the individual difference factor ad skepticism. In experiment 1, we found that under conditions of narrative processing, self-referencing leads to transportation, which is persuasive regardless of the level of argument strength. In experiment 2 we also find that narrative self-referencing leads to transportation (hypothesis 2A). Further, we show that individuals who are highly skeptical of advertising are not transported by an ad designed to evoke narrative self-referencing and therefore are less likely to be

persuaded by weak arguments. It appears that skeptical individuals cope with persuasion attempts by not allowing themselves to get caught up in the advertisement. Thus, they are not transported, but rather they analytically evaluate the ad's arguments. We will test this second assertion (hypothesis 2B) directly in experiment 3. We also find support for hypothesis 3: self-referencing that does not involve narrative transportation leads to persuasion only when product arguments are strong, consistent with the results for analytical self-referencing in experiment 1. Note that the pattern of results is not consistent with an alternative explanation that highly skeptical individuals simply engage in more elaboration than less skeptical individuals: we do not find more persuasion for the highly skeptical individuals compared to the less skeptical individuals under conditions of strong arguments; the level of persuasion is the same (see figure 2).<sup>3</sup>

### **EXPERIMENT 3**

This experiment is also designed to examine whether ad skepticism can “turn off” the favorable persuasive effect of narrative transportation when ad arguments are weak. In this study, we manipulate whether or not participants act as ad critics to evoke situational ad skepticism while viewing the same shampoo ad used in experiment 2.

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<sup>3</sup> Furthermore, our self-referencing manipulation check is not different across the four conditions, which would imply high levels of elaboration for all participants (e.g., Burnkrant and Unnava 1989).

## Method

*Participants.* Ninety-seven undergraduate introductory marketing students from the same public, Southwestern university as experiments 1 and 2 participated in this study in exchange for experimental credit toward the fulfillment of a course requirement.

*Procedure.* This experiment utilizes the same computer-based methodology as experiments 1 and 2. The only deviation consists of half the participants being given the following instructions, intended to evoke ad skepticism but not dampen self-referencing, prior to viewing the ad: “On the next screen, you will be shown an advertisement. Your instructions are to critique the ad as if you were an ad critic for a magazine such as *Ad Age*. Please, take the time to evaluate the ad carefully. We ask you to think analytically, relating the features described by the ad to you personally in order to evaluate them.”

*Dependent Variables.* We once again collect thought protocols, because in experiment 2 we replicated our results from experiment 1 without the potential confound of thought protocols. Participants’ thoughts were coded by two coders blind to the experimental conditions. The thoughts were coded for the degree to which these thoughts told a well-developed story using the same three items in experiment 1. The three items were averaged for each coder to form one narrative score for each coder for each participant’s thought protocol. The two coders’ average narrative scores were positively correlated ( $r = .56, p < .001$ ); therefore, the two coders’ narrative scores were averaged to form one narrative score per participant ( $\alpha = .83$ ). In order to test the extent to which narrative transportation distracts attention away from the product and analysis of the message, these same two independent coders also completed the product focus and ad/brand by valence coding described in study 1. Interjudge reliability was 76% for the proportion of shampoo focused thoughts, 55% for counterarguments (negative brand), and 91% for source

derogations (negative ad; see below). Disputes were resolved by discussion with the two coders and the author (blind to the experimental conditions). We again use the five-item transportation scale ( $\alpha = .86$ ), two-item ad attitude scale ( $\alpha = .89$ ), and four-item brand evaluation scale ( $\alpha = .86$ ) used in study 2.

*Manipulation Checks.* The same manipulation checks were used in this study as in experiment 2: two items for argument strength ( $\alpha = .90$ ) and two items for the degree of self-referencing ( $\alpha = .61$ ; here, combined to form one variable). Additionally, to check the ad critique manipulation, two items measured how analytical the participants felt they were (“to what extent were your thoughts analytical?” and “to what extent did you systematically evaluate the shampoo?” anchored by not at all (0), very much so (100),  $\alpha = .42$ , so the two variables will be analyzed separately).

## Results

This study is a 2x2 between-subjects design, crossing ad processing instructions (critique vs. control/narrative) with argument strength (strong vs. weak). All participants saw the same shampoo ad from study 2 (see appendix B), designed to promote narrative self-referencing.

*Manipulation Checks.* As expected, participants do not report significantly different degrees of self-referencing across ad processing instruction conditions (critique = 52.86, control/narrative = 52.61;  $F(1, 94) < 1.0$ , *n.s.*). Argument strength and the interaction of argument strength by ad processing instructions are also not significant [all  $F(1, 94) < 1.0$ , *n.s.*]. The argument strength manipulation check is marginally significant (strong = 53.02, weak = 47.52;  $F(1, 94) = 2.77$ ,  $p = .10$ ), and there are no other significant effects on this measure ( $F_s(1, 94) < 1.72$ , *n.s.*). We find a marginally significant effect of the ad critique manipulation on the variable

“to what extent did you systematically evaluate the shampoo?” (critique = 57.96, control/narrative = 49.10,  $F(1, 94) = 2.86, p = .09$ ; no other effects are significant in this model and we find no effects on the other ad critique manipulation check item [ $F(1, 94) < 1.0, n.s.$ ]). Furthermore, we do not find any differences in the total number of thoughts across any of the four conditions; thus our manipulations do not appear to affect overall levels of involvement with the stimulus ad.

*Hypothesis 2A.* This hypothesis asserts that narrative self-referencing (which we expect only in the control/narrative condition) will lead to narrative transportation. The thought-coding results find that participants in the narrative self-referencing (control) condition engage in significantly more narrative processing than those in the ad critique condition (critique = 1.49, control/narrative SR = 1.75;  $F(1, 94) = 4.20, p < .05$ ). (There is a marginally significant effect of argument strength on narrative processing [strong = 1.74, weak = 1.52,  $F(1, 94) = 3.12, p = .08$ ] and no interaction effect.) In a direct test of our hypothesis, we find a marginally significant effect of the our ad processing instructions on the five-item narrative transportation scale (critique = 49.93, control/narrative SR = 58.54;  $F(1, 94) = 3.48, p = .06$ ). As expected, the narrative transportation scale is positively correlated with ad attitudes ( $r = .49, p < .001$ ) and brand evaluations ( $r = .55, p < .001$ ). Neither argument strength nor the interaction of argument strength by ad processing instructions have a significant effect on narrative transportation (all  $F(1, 94) < 1.0, n.s.$ ). Thus, the unexpected interaction found in experiment 2 is not replicated here.

*Hypothesis 2B.* This hypothesis asserts that narrative self-referencing results in less critical evaluation of the brand being advertised. This hypothesis is supported by two thought coding variables: the proportion of negative brand focused thoughts (counterarguing) and the proportion of negative ad focused thoughts (source derogations). Here, we find a marginally lower proportion of counterarguments in the narrative self-referencing (control) condition (critique = 0.07,

control/narrative SR = 0.02;  $F(1, 94) = 3.41, p = .07$ ). The proportion of counterarguments is negatively correlated with ad attitudes ( $r = -.25, p < .01$ ) and brand evaluations ( $r = -.25, p < .01$ ). We also find a significantly lower proportion of source derogations in the narrative self-referencing (control) condition (critique = 0.37, control/narrative SR = 0.21;  $F(1, 94) = 5.19, p < .05$ ). The proportion of source derogations is also negatively correlated with ad attitudes ( $r = -.64, p < .001$ ) and brand evaluations ( $r = -.54, p < .001$ ). There are no other significant effects in the model of negative brand thoughts, but in the model of negative ad thoughts, argument strength is also significant (weak = 0.36, strong = 0.21;  $F(1, 94) = 5.03, p < .05$ ). We find no significant effects on the shampoo focus thought coding variable in experiment 3, nor do we find any differences in the total number of thoughts across any of the four conditions.

*Hypothesis 3.* This hypothesis examines whether there is a differential effect of argument strength on  $A_{Ad}$  and BE under the ad critique manipulation condition versus control/narrative condition. Argument strength is marginally significant in the model of  $A_{Ad}$  (weak = 39.45, strong = 46.01,  $F(1, 94) = 2.74, p = .10$ ) and significant for BE (weak = 49.45, strong = 56.38,  $F(1, 94) = 4.29, p < .05$ ). Our ad processing instructions are not significant in either model. The main effects are qualified by the expected significant interaction of the ad processing instructions by argument strength in the model for BE ( $F(1, 94) = 3.78, p = .05$ ; see table 4 and figure 3). While the pattern of results for  $A_{Ad}$  is consistent with our hypothesis, the interaction is not significant.

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Hypothesis 3 predicts that narrative transportation will result in persuasion occurring even with weak arguments in the control condition, but that when transportation is discouraged by conditions of ad skepticism, weak arguments will harm persuasion. Pre-planned contrasts support this hypothesis for BE (see table 4). These results indicate that narrative self-referencing serves as a distracter from weak arguments, as predicted by transportation theory, while analytical self-referencing (evoked by the ad critique manipulation) appears to evoke high levels of elaboration on the ad's arguments. Thus, increased transportation in the narrative self-referencing condition (demonstrated in our analysis of H2a above) appears to result in insensitivity to weak arguments, while increased elaboration on ad arguments in the ad critique condition (demonstrated in our analysis of H2B above) reverses this effect. Note that there is not a significant difference between the strong argument, critique condition and either of the two control conditions ( $F_s(1, 94) < 1.0$ , *n.s.*). This indicates that the differential effect of transportation versus more analytical elaboration is concentrated in weak arguments, consistent with our general theory regarding the ability of transportation to distract from weak arguments. The pattern of results is similar for ad attitudes, though not significant.

### **Discussion of Experiment 3 Results**

In this study, we replicate the findings from experiments 1 and 2, using a manipulation to evoke ad skepticism, which leads to analytical self-referencing, even in response to an advertisement that encourages narrative self-referencing under baseline conditions. We again find that under conditions of narrative processing, participants are transported by their thoughts (hypothesis 2A), and narrative self-referencing serves as a distraction from message strength evaluation (hypothesis 2B). On the other hand, under analytical processing (evoked by our critique

manipulation), self-referencing serves to enhance elaboration, which results in persuasion only when ad arguments are strong (hypothesis 3). Persuasion under conditions of weak arguments disappears for consumers who are highly skeptical, because they revert to analytical self-referencing, with increased elaboration of ad arguments. Note that the pattern of results is not consistent with a purely elaboration based explanation: we do not find more persuasion with strong arguments for the ad critique condition compared to the control/narrative condition. The level of persuasion is the same for highly skeptical individuals with strong arguments and the control conditions, where transportation occurs, regardless of argument strength (see figure 3).

## CONCLUSION

In conclusion, narrative self-referencing leads to a favorable evaluation of the advertised product, regardless of argument strength, while analytical self-referencing produces high levels of elaboration on the ad's arguments, leading to favorable ad and brand evaluations only when the ad's message is strong. The effect of narrative self-referencing can be moderated by factors that reduce the likelihood that ad viewers will be transported by the ad, such as ad skepticism (experiment 2) and instructions to process the ad critically (experiment 3). Thus, the contribution of the three experiments in this paper is to introduce the idea that there exist different types of self-referencing, where participants engage in two different types of thought processes.

Participants who engage in mental simulation (including autobiographical memory recall) engage in narrative processing, which can transport participants, leading to persuasion from reduced attention to weak arguments and generation of positive affect (Green and Brock 2000). On the other hand, participants who do not think in story-form engage in more critical thought processes that evaluate the strength of the message. This is particularly true when analytical self-referencing

serves to increase cognitive elaboration within the critical thought mode. We are able to replicate the differential effect of argument strength on persuasion found in experiment 1 under conditions of analytical self-referencing by measuring ad skepticism in experiment 2 and manipulating analytical processing in experiment 3. In all three experiments, narrative self-referencing is able to transport consumers and distract them from weak arguments that in all other instances (ad text that evokes analytical self-referencing, high ad skepticism, and instructions to process critically) harm persuasion.

To date, no studies moderating the effects of narrative transportation have been published in psychology. Experiments 2 and 3 thus represent a contribution to the general study of narrative transportation beyond the setting of self-referencing. By examining transportation in the context of advertising, we have found a medium where the power of the narrative to transport the reader is offset by consumers' persuasion knowledge and skepticism about the advertisers' intentions. Therefore, both individual tendencies towards ad skepticism and instructions to process the ad in a critical fashion were able to moderate narrative transportation, while these factors have not been able to moderate narrative transportation when individuals read non-advertising stories in psychology experiments.

### **Directions for Future Research**

The studies in this paper reveal that the structure of self-referencing (narrative versus analytical) is important to persuasion. The two different styles of processing we have identified may also be useful towards understanding how other types of advertising persuade, beyond advertisements that evoke self-referencing studied in this paper. Many types of advertising, including drama ads (Deighton, Romer, and McQueen 1989; Stern 1994), transformational ads

(Puto and Wells 1984), and slice of life ads (Mick 1987), elicit narrative thought and are therefore likely to persuade via narrative transportation. There may be differences in the degree to which narrative thought is evoked and its subsequent effects across these different types of ads.

Similarly, there may be differences in the degree of self-referencing evoked and its effects. For example, West et al. (2004) found equivalent preference enhancement for writing a story about oneself and a work of art compared to writing a story about another person and the artwork. On the other hand, these same authors found that writing a self-focused story enhanced choice to a greater extent than an other-focused story. Hence, further investigation is warranted across a wide variety of ad types that may evoke narrative processing, but not necessarily self-referencing.

Additionally, it would be interesting for advertising practitioners to know whether ad viewers can be transported too far. Green and Brock (2000) do not find that increased “transportation” has the same negative effects on persuasion that increased elaboration does. However, their persuasion measures were directly relevant to the story being told. In advertising, the link between the persuasion object (i.e., the brand) and the story evoking narrative transportation is not as clear. For example, in the Sujon et al. (1993) autobiographical memory studies, a specific link to the brand had to be formed, because autobiographical memories without the link transported participants so far away from the ad that the ad was not persuasive with regards to the fictitious wine product. While this is less likely with instructions to imagine oneself actually using the product (our chosen narrative context), it may be quite likely with ads that tell very compelling, and hence very transporting, stories. These stories may transport ad viewers into a fictitious world that is not well linked to the brand. Further investigation of when and how this may occur, and how to avoid it, would be interesting.

## APPENDIX A

### AD TEXT FOR EXPERIMENT 1

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#### **Non-Self-Referencing, Strong Arguments Ad Text**

Introducing Westerly running shoes. These shoes are remarkably light. They weigh only 10 oz. Westerly running shoes put a spring in one's step. They also provide strong support, with their advanced stability system. Westerly's cushioning system spreads shock, reducing injury. Westerly running shoes improve the comfort and quality of a morning run...

#### **Non-Self-Referencing, Weak Arguments Ad Text**

Introducing Westerly running shoes. These shoes are remarkably secure. They have advanced, reinforced shoelaces. Westerly running shoes have water-resistant uppers that keep one's feet dry, even in the rain. And Westerly running shoes have never been tested on laboratory animals. Westerly running shoes improve the comfort and quality of a morning run...

#### **Analytical Self-Referencing, Strong Arguments Ad Text**

We'd like to introduce you to Westerly running shoes, designed with you in mind. These shoes are remarkably light. They weigh only 10 oz. Westerly running shoes will put a spring in your step. They also provide strong support for your feet, with their advanced stability system. Westerly's cushioning system spreads shock, reducing your injuries. Westerly running shoes will improve the comfort and quality of your morning run...

#### **Analytical Self-Referencing, Weak Arguments Ad Text**

We'd like to introduce you to Westerly running shoes, designed with you in mind. These shoes are remarkably secure. They have advanced, reinforced shoelaces. Westerly running shoes have water-resistant uppers that keep your feet dry, even in the rain. And Westerly running shoes have never been tested on laboratory animals. Westerly running shoes will improve the comfort and quality of your morning run...

#### **Narrative Self-Referencing, Strong Arguments Ad Text**

Imagine yourself running through this park. Your feet feel remarkably light. You look down and see a pair of Westerly running shoes on your feet. They weigh only 10 oz. You notice a spring in your step. Westerly running shoes provide strong support with their advanced stability system. Westerly's cushioning system spreads shock, reducing injury. Imagine yourself in Westerly running shoes to improve the comfort and quality of your morning run...

#### **Narrative Self-Referencing, Weak Arguments Ad Text**

Imagine yourself running through this park. Your feet feel remarkably secure. You look down and see a pair of Westerly running shoes on your feet. They have advanced, reinforced shoelaces. You notice your feet are dry. Westerly running shoes have water-resistant uppers to keep your feet dry, even in the rain. And Westerly running shoes have never been tested on laboratory animals. Imagine yourself in Westerly running shoes to improve the comfort and quality of your morning run...

## APPENDIX B

### AD TEXT FOR EXPERIMENTS 2 AND 3

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#### **Weak Arguments Ad Text**

Imagine yourself using Saloncare shampoo. As you wash your hair, you experience Saloncare's latest formula with enhanced natural ingredients. Feel the lather permeate your hair. Your hair feels clean, your scalp refreshed. That's because research tests in our labs indicate that some people who use Saloncare shampoo eliminate tiny flakes left by other shampoos. Imagine using Saloncare shampoo to make your hair look good. Saloncare is your best choice!

#### **Strong Arguments Ad Text**

Imagine yourself using Saloncare shampoo. As you wash your hair, you experience Saloncare's radically new formulation, enhanced with all natural ingredients. Feel the lather permeate your hair. Your hair feels clean, your scalp refreshed. That's because 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. Imagine using Saloncare shampoo to make your hair look its absolute best. Saloncare is your best choice!

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**TABLE 1**  
 DEPENDENT VARIABLE MEANS (STANDARD DEVIATIONS)  
 FOR ALL THREE EXPERIMENTS

<b>Dependent Variable</b>	<b>Experiment 1</b>	<b>Experiment 2</b>	<b>Experiment 3</b>
Ad Attitude	42.69 (23.02)	46.55 (18.05)	42.66 (20.19)
Brand Evaluation	46.13 (21.22)	55.02 (18.19)	52.844 (18.45)
Transportation	49.92 (24.17)	52.18 (21.68)	54.32 (23.78)
Proportion of Product Focused Thoughts	0.27 (0.35)		
Proportion Counterarguments	0.11 (0.26)		0.05 (0.13)
Proportion Source Derogations			0.28 (0.40)

TABLE 2

## INTERACTION AND CONTRAST RESULTS FROM EXPERIMENT 1

Dependent Variable	No Self-Referencing		Analytical Self-Referencing		Narrative Self-Referencing		Interaction Significance
	Weak	Strong	Weak	Strong	Weak	Strong	
A <sub>Ad</sub>	32.91	41.61	37.22	49.53	48.60	45.22	$F(2, 242) = 3.08$ , $p < .05$
<b>Contrasts:</b>	$F(1, 242) = 2.83$ , $p = .05$		$F(1, 242) = 4.92$ , $p < .05$		$F(1, 242) < 1.0$ , <i>n.s.</i>		
BE	40.43	36.76	39.01	53.05	50.64	52.64	$F(2, 242) = 2.32$ , $p < .10$
<b>Contrasts:</b>	$F(1, 242) < 1.0$ , <i>n.s.</i>		$F(1, 242) = 6.83$ , $p < .01$		$F(1, 242) < 1.0$ , <i>n.s.</i>		

TABLE 3

## INTERACTION AND CONTRAST RESULTS FROM EXPERIMENT 2

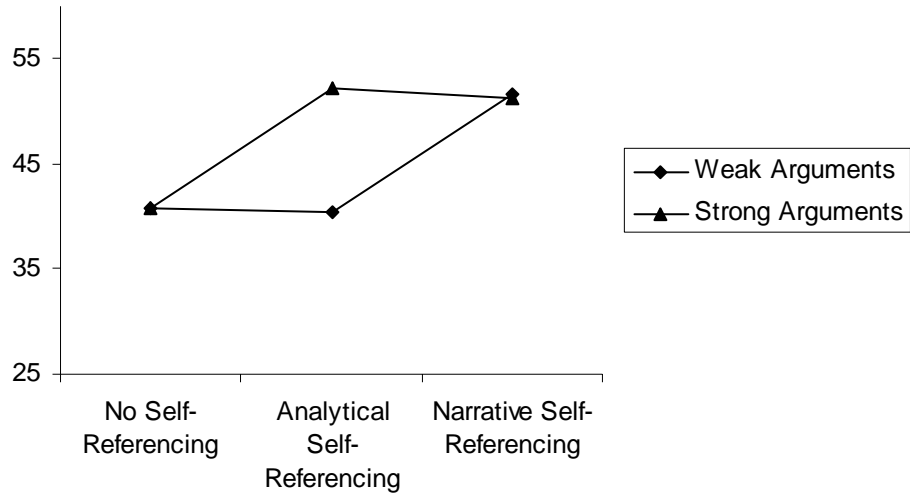
Dependent Variable	High Ad Skepticism		Low Ad Skepticism		Interaction Significance
	Weak	Strong	Weak	Strong	
A <sub>Ad</sub>	37.28	46.68	56.14	49.53	$F(1, 62) = 3.38,$ $p < .10$
<b>Contrasts:</b>	$F(1, 62) = 2.60,$ $p = .06$ (one-tailed)		$F(1, 62) = 1.04,$ $n.s.$		
BE	43.03	57.43	62.88	59.46	$F(1, 62) = 4.35,$ $p < .05$
<b>Contrasts:</b>	$F(1, 62) = 6.34,$ $p < .01$		$F(1, 62) < 1.0,$ $n.s.$		

**TABLE 4****INTERACTION AND CONTRAST RESULTS FROM EXPERIMENT 3**

<b>Dependent Variable</b>	<b>Critique Condition</b>		<b>Control Condition</b>		<b>Interaction Significance</b>
	<b>Weak</b>	<b>Strong</b>	<b>Weak</b>	<b>Strong</b>	
A <sub>Ad</sub>	35.09	46.46	42.87	45.47	$F(1, 94) = 1.08,$ <i>n.s.</i>
<b>Contrasts:</b>	N/A		N/A		
BE	42.89	57.50	54.60	55.06	$F(1, 94) = 3.78,$ $p = .05$
<b>Contrasts:</b>	$F(1, 94) = 8.11,$ $p < .01$		$F(1, 94) < 1.0,$ <i>n.s.</i>		

**FIGURE 1****BRAND EVALUATION INTERACTION RESULTS FOR EXPERIMENT 1 (0-100 SCALE)**

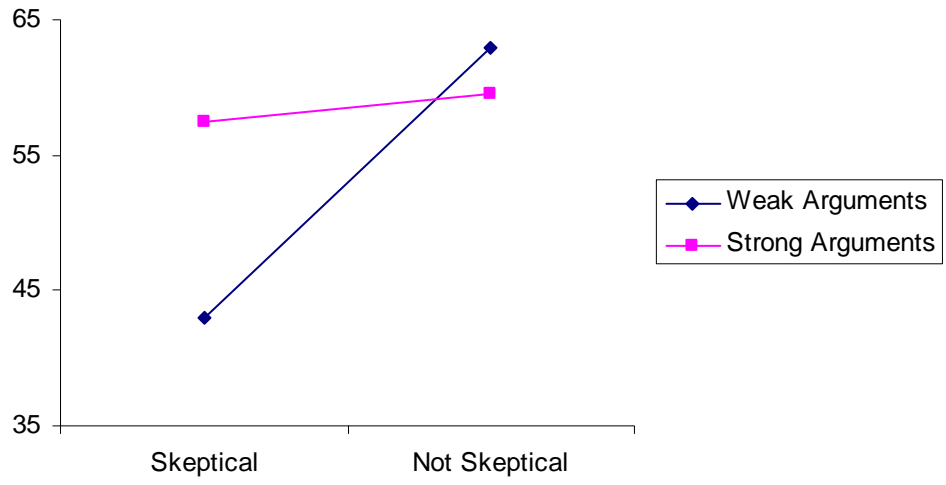
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**FIGURE 2**

**BRAND EVALUATION INTERACTION RESULTS FOR EXPERIMENT 2 (0-100 SCALE)**

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**FIGURE 3****BRAND EVALUATION INTERACTION RESULTS FOR EXPERIMENT 3 (0-100 SCALE)**

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