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When Intrusive Can Be Likable: Product Placement Effects on Multitasking Consumers

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When Intrusive Can Be Likable: Product Placement Effects on Multitasking Consumers

Abstract

Using movie scenes, this study examines how multitasking by viewers influences the product–plot integration effect. Findings indicate that multitasking dampens a well integrated placement’s brand-enhancing effect and mitigates an intrusive placement’s brand-damaging effect. Well integrated placement produces an assimilation effect, leading to convergence of viewers’ attitudes toward the placed versus competing brands, while intrusive placement triggers a contrast effect that results in divergence of these attitudes. Among single-tasking viewers, the boomerang effect of an intrusive placement decreases the favorability of the placed brand and increases the favorability of the not-shown competitor. However, the opposite is true among multitasking viewers.

Imagine two consumers, Jason and Sarah, each watching a movie on TV. Jason, viewing a scene from *Runaway Bride*, sees Julia Roberts jump on a truck that conspicuously displays the FedEx logo. Sarah, watching *The Thomas Crown Affair*, observes Rene Russo march to a vending machine, pull out a logo-prominent can of Pepsi, and guzzle it down. Jason and Sarah instantly recognize that the products have been intentionally placed. Jason appreciates and enjoys the seamless, clever integration of FedEx into the storyline of *Runaway Bride*, whereas Sarah finds the intrusive, abrupt display of Pepsi to be disruptive, with no contextual connection to the story flow of *The Thomas Crown Affair*. Will Jason's positive and Sarah's negative feelings about the brands change if they multitask while viewing these scenes? Will simultaneous engagement in another task also affect their feelings about competing brands, such as UPS or Coke, that do not appear in the film? If so, when will product placement help or hurt the placed brands in comparison with competing brands? The present research addresses these questions.

The existing literature on product placement demonstrates that consumers' attitudes toward a brand appearing in entertainment media are largely shaped by the extent to which the brand is contextually tied to a main plot. Growing evidence suggests that today's discerning consumers acknowledge that a smoothly embedded placement enriches the plot, heightens realism, and adds enjoyment to their entertainment experience, but they regard a product that is intrusively inserted and lacking in consideration of the main plot to be a disturbing and unwelcome distraction (Cowley and Barron 2008; d'Astous and Seguin 1999; Homer 2009; Russell 2002). Similarly, a recent survey revealed that 46% of Americans agree that their views toward product placements depend on how the placement is done (Sung, Gregorio, and Jung 2009).

The preceding findings identify an important *message factor*—integration—that strengthens or weakens product placement effects. However, extant research does not consider whether *audience factors*, such as a cognitive burden imposed by multitasking, also shape the direction of integration effects. Of particular relevance to the present investigation is that, in today's multimedia environment, audiences perform other tasks while engaging with media (Jeong and Fishbein 2007). For example, 69% of online users, 68% of TV viewers, 69% of radio listeners, and 40% of newspaper and magazine readers are multitaskers (Loechner 2005). In addition, 57% of consumers watch TV and go online simultaneously at least once a month (Nielsenwire 2009). Although many investigations have examined the effect of brand–plot integration on brand evaluations, to the best of our knowledge no prior study has examined how multitasking shapes the integration effect. This research addresses that oversight.

The present research focuses on an important theoretical and practical issue that the product placement literature ignores: whether and how the cognitive load multitasking imposes can influence the brand–plot integration effect. Specifically, building on dual-process theories of persuasion (Chaiken 1980; Petty and Caccioppo 1981, 1986), we argue that the well established integration effect (i.e., the positive effect of smooth integration and negative effect of intrusive integration on attitude toward the placed brand) is a product of cognitive elaboration. That is, we contend that if the usually observed integration effect is to occur, viewers must have enough cognitive resources available for elaboration-driven processing. However, when multitasking burdens them with cognitive load, they are likely to rely on heuristic-driven inference, which might reverse the typical integration effect. Drawing on associative network theory, we extend this argument and explore how placement integration and cognitive load together shape attitudes toward the not-shown competitors' brands in comparison with the placed brands.

The objectives of this research are (1) to examine how multitasking-driven cognitive load moderates the placement integration effect, and (2) to explore whether these two situational constraints—multitasking and integration—differentially influence attitudes toward the placed brand (e.g., Pepsi) versus a competing brand that is not shown (e.g., Coke). To achieve these goals, through an extensive series of pretests we first identify exemplary scenes from current films containing well integrated and intrusively integrated product placements. We then empirically validate the baseline assumption that, in a single-task, cognitively unloaded setting, a well integrated placement enhances a brand's image, whereas an intrusively integrated placement damages a brand's image.

INTEGRATION EFFECT IN PRODUCT PLACEMENT

Movies are replete with product placements that call on the main character to actively interact with the product in various forms (Cassady, Townsend, Bell, and Watnik 2006; McClung and Cleophas 2008), and previous research examines placement prominence as a primary construct responsible for mnemonic and attitudinal outcomes. For example, researchers have found that prominent placements generate higher brand recall and recognition than subtle placements (Brennan, Dubas, and Babin 1999; Gupta and Lord 1998; Schneider and Cornwell 2005; van Reijmersdal 2009). However, some investigators argue that better recall does not necessarily improve attitude. Rather, heightened recall increases awareness of the brand's presence in the scene, which in turn triggers counter-arguing or irritation (Cowley and Barron 2008; Friestad and Wright 1994, 1995; Ha 1996; Russell 2002; van Reijmersdal 2009).

A closer look at the literature reveals that prominence or awareness does not in itself determine the direction of the persuasion effect. Instead, although consumers are clearly aware that a product has been placed prominently, they are open to the practice and accept product placement as an essential part of the entertainment if they perceive that the placement is connected to the story and adds value. For example, a well integrated placement might cause a viewer to muse, “That was clever.” In fact, viewers’ responses can be positively affected by the “story-connectedness” when the brand use furthers the plot (Gupta and Gould 1997; Lehu 2007; Stern and Russell 2004; Yang and Roskos-Ewoldsen 2007). Conversely, the awareness backlash effect would prevail if viewers perceive a placement to be an intrusively integrated sales pitch (Cowley and Barron 2008; Homer 2009; Wei, Fischer, and Main 2008). In such cases, consumers might arm themselves with persuasion knowledge and think, “I am not that easy.”¹

In summary, the literature on product placement notes the importance of integration in product placement, and marketers take a risk when they embed products conspicuously in visual media. Today’s discerning consumers tend not only to tolerate but also to appreciate this practice when they perceive that such placements contribute to their viewing experience (Gupta and Gould 1997; Lehu 2007; Redondo and Holbrook 2008; Stern and Russell 2004; Sung, Gregorio, and Jung 2009), but they will develop negative impressions if they perceive that the product placement intrudes on their viewing experience (Cowley and Barron 2008; Homer 2009; Wei Fischer and Main 2008).

In addition, the literature identifies other influential factors, including program-induced mood (Goldberg and Gorn 1987), sensory modality (Law and Braun 2000; Russell 2002), plot–

¹ Friestand and Wright (1994, 1995) explain how persuasion knowledge works. Because the marketplace is fraught with situations in which consumers must interpret and react to persuasion attempts and marketing messages, consumers should be particularly skeptical when the stakes are high. In our case, this defense mechanism will likely kick in when the product is intrusively placed.

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brand congruity (Russell 2002), brand familiarity (Brennan and Babin 2004), exposure duration (Brennan, Dubas, and Babin 1999), program liking (Cowley and Barron 2008), and program type (d'Astous and Seguin 1999; Roehm, Roehm, and Boone 2004). The present research attempts to control for these variables quasi-experimentally.

COGNITIVE LOAD IN A MULTITASKING ENVIRONMENT

Some research suggests that cognitive load can change the direction of the integration effect. The literature on dual-processing theories of persuasion robustly demonstrates two distinct modes of thought: one deliberate and elaboration-based (the central route in the Elaboration Likelihood Model; Petty and Cacioppo 1981, 1986; systematic processing in the Heuristic-Systematic Model; Chaiken 1980) and the other associative and heuristic-based (the peripheral route in ELM, heuristic processing in HSM). According to this reasoning, viewers' central/systematic route is engaged when they have enough motivation and cognitive ability to expend energy for elaboration. When they thoughtfully consider the message, they are highly likely to elaborate and consider factors such as the quality of arguments contained in an ad (Petty, Cacioppo, and Steidley 1988). On the other hand, they often take the peripheral/heuristic route when their motivation or cognitive resources are low. The result is a relatively superficial (although possibly efficient) consideration of the message. Rather than engaging in product/plot-relevant elaboration, they will pay greater attention to peripheral cues and heuristics—often even non-issue-related cues—such as whether the source is attractive or the number or length (but not the quality) of arguments in the ad (e.g., Petty, Cacioppo, and Steidley 1988). Previous research identifies several heuristic cues that individuals often use as a basis of attitude formation. For example, they are likely to form positive attitudes if the attitude object creates positive affect (i.e.,

the affect heuristic; Winkielman, Zajonc, and Schwarz 1997) and is salient and easily noticeable (i.e., the availability heuristic; Tversky and Kahneman 1973). Research shows that viewers are more likely to rely on these heuristics if they are under cognitive load (Gilbert, Pelham, and Krull 1988). We build on this line of thought to examine how cognitive load can reverse the direction of the integration effect.

In the present context of product placement, a viewer's attitude toward the placed brand may well be the result of two distinct modes of processing: a thoughtful, deliberate understanding of the storyline intertwined with contextual factors in the scene, or a heuristic inference from an effortless association based on salient, noticeable cues. The former is likely when a viewer is fully immersed in the viewing experience; the latter is likely when a viewer is busy dealing with other ongoing tasks. In other words, when viewers are cognitively taxed by multitasking, the contextual (ir)relevance of the placed brand to the plot plays little role in attitude formation. Only when viewers have plentiful mental resources will they see the well (intrusively) integrated brand as relevant (irrelevant) and experience positive (negative) attitudes toward the brand. Thus, multi- (vs. single-) tasking viewers are more likely to make heuristic-driven inferences than elaboration-driven judgments, using the salience of the placed brand as a cue. Under such conditions, integration may affect viewers' brand evaluations in a reverse direction. That is, when viewers process an intrusively integrated placement under cognitive load (placement that would be disruptive if they processed it with full cognitive capacity), they will experience a positive, direct heuristic effect on attitude toward the placed brand.

To illustrate, imagine that Jason and Sarah in the introductory scenario are multitasking while watching the movie. Because they are unable to use the full capacity of their cognitive resources to process the brand–movie integration, as dual processing theory predicts, they are

likely to rely largely on salient cues and take the peripheral/heuristic route to make heuristic-driven (vs. elaboration-driven) inferences. If Jason has fewer cognitive resources for the thoughtful elaboration that led him to appreciate that the FedEx brand was well integrated into the storyline, his appreciation of and positive attitude toward FedEx would not be as pronounced as it would otherwise be. Likewise, if Sarah is in the peripheral processing mode, she will be less able to thoughtfully elaborate that the Pepsi brand has been poorly integrated into the storyline, so her negative attitude toward Pepsi, originating from the detection of a poor story–brand fit, would be less negative than it would be otherwise. Even more interesting, research in heuristic usage suggests that intrusively integrated placement might lead not only to less negative but also to more positive brand attitudes, on the ground that the story-irrelevance of the intrusive product placement would make the brand more noticeable and salient than would smooth product placement.

Previous findings regarding product placement are consistent with this reasoning. Researchers have found that when consumers perceive a product placement to be incongruent rather than congruent to the main plot, the placed brand may become more memorable (the accessibility heuristic; Balasubramanian, Karrh, and Patwardhan 2006; Heckler and Childers 1992; Russell 2002). In the same vein, prominent placements negatively affect brand attitudes among viewers who like the program but positively affect brand attitudes among viewers who dislike the program (Cowley and Barron 2008). Viewers who like the program are likely to pay more attention to the brand placement and thus are more likely to recognize that the placement is intentional, whereas viewers who dislike the program are less aware of the placement. These findings suggest that when an audience is unwilling to process the message, more positive brand attitudes are likely to follow because of decreased elaboration and scrutiny.

Would a similar effect be observed when the audience is unable rather than unwilling to process the message? Dual-process theory predicts so. For elaboration to occur, a viewer must be both willing and able to process the message (Petty and Cacioppo 1981, 1986). Hence, a lack of either willingness or ability to process the message would lead the viewer to fall back on heuristic-driven processing. Noteworthy in the current context is that the more readily unmotivated viewers notice the placed brand, the more positive their brand attitudes. In other words, viewers with low motivation levels tend to use availability heuristics wherein heightened salience transfers to more positive attitudes. Hence, according to dual-processing theory, the effect of motivation level on brand attitudes from Cowley and Barron's (2008) findings should similarly apply to the effect of cognitive capacity on brand attitudes. If cognitive resources are reduced, as they are in lowered motivation levels, viewers should use the placement's intrusiveness as a heuristic to form their brand attitudes. Consequently, multitasking viewers with a cognitive load at the encoding stage might perceive intrusively integrated placement as more salient than well integrated placement (Heckler and Childers 1992; Nelson, Yaros, and Keum 2006; Russell 2002), and when asked about their attitudes toward the brand at a later time, may merely react to the vivid image of the brand that easily comes to mind. Thus, we proposed the following hypothesis.

H1: For a well integrated product placement, participants under cognitive load will have a more *negative* attitude toward the placed brand than will participants not under load, but for an intrusively integrated product placement, participants under cognitive load will have a more *positive* attitude toward the placed brand than will participants not under load.

THE PLACED VERSUS COMPETING BRAND: ASSIMILATION OR CONTRAST?

Several lines of research suggest that exposure to product placement might affect not only a consumer's attitude toward the placed brand itself, but also the attitude toward a competing brand that provides a similar product or service. One stream of research stems from studies of consumer choice and proposes that consumers' assessment of what is available in their choice set is closely linked with their evaluation of what is outside their choice set. The link may be tighter if they have readily accessible memories of the unavailable alternative (Kahneman and Miller 1986), as adding an item to or removing an item from a choice set (i.e., an alternative that is highly accessible in memory) influences consumers' judgments of items in their choice set (Broniarczyk, Hoyer, and McAlister 1998; Fitzsimons 2000; Huber, Payne, and Puto 1982; Simonson 1989).

The second stream of research of particular interest examines associative networks (Aaker 1996; Henderson, Iacobucci, and Calder 1998). As Figure 1 illustrates, these studies emphasize that knowledge can be represented as networks, and these basic structures comprise concept nodes that include a range of brand-related concepts such as a target brand (Pepsi), its image (young), its spokesperson (Britney Spears), its use situation (Pizza Hut), and its close competitor (Coke). When a consumer encounters a stimulus, such as a Pepsi logo in a movie scene, the corresponding node (Pepsi) is momentarily activated. Activation subsequently spreads to other nodes from the stimulus node, thickening the link from close to distant nodes (Collins and Loftus 1975; Henderson, Iacobucci, and Calder 1998). Our focus is on the node representing a clearly identified competitor (Coke). In some instances, activation of this node may result in an assimilation effect, causing the consumer to lump the target and the competing brand together and perceive them similarly (e.g., "I like soda"). In this instance, positive (negative) evaluations

of one brand can lead to positive (negative) evaluations of another brand. At other times, however, the consumer may use the target (Pepsi) and the competing brand (Coke) as comparison standards against each other, and a contrast effect may follow (e.g., “I prefer Pepsi to Coke”), in which negative (positive) evaluations of one brand lead to positive (negative) evaluations of another brand.

Place Figure 1 about here

What conditions might cause assimilation or contrast effects? Evidence suggests that if, at encoding, viewers perceive surrounding contexts to be relevant, they are likely to assimilate the two. That is, viewers are likely to transfer their positive and negative beliefs from one context to the other (Herr, Sherman, and Fazio 1983; Mussweiler 2003; Schwarz and Bless 1992). Conversely, if viewers perceive the contexts to be irrelevant, their awareness of the contrast is likely to be heightened and their beliefs about the two objects are likely to diverge (Herr 1989; Musweiler 2003). For example, college students did well on a knowledge test when they were primed with the concept of a professor whom they saw as relevant to their self-concept (an assimilation effect). However, the students performed poorly on the same test when Albert Einstein was used for the priming, because they saw him as irrelevant to their self-concept (a contrast effect; Dijksterhuis, Spears, and Lépinasse 2001). In a similar vein, when consumers read a magazine article and then encountered an ad that was thematically relevant to the article, they assimilated their evaluations of the article and the advertised product. When they saw an ad that was irrelevant to the magazine article, they formed contrasting evaluations of the magazine

article and the advertised product (Shen, Jiang, and Adval 2009). In sum, the literature on assimilation and contrast effects suggests that attitudes toward two objects are likely to converge (diverge) when the surrounding context is relevant (irrelevant) to the attitudinal objects.

Extending the findings in these streams of research regarding associative network theory and assimilation/contrast effects, we propose that exposing an audience to a well integrated versus an intrusively integrated product placement may not only influence the attitude toward the brand shown but may also influence the attitude toward the highly accessible, competing brand that is not shown, particularly if the competing brand is the only comparable alternative to the placed brand (e.g., Pepsi vs. Coke). Although the evidence for assimilation/contrast effects has been drawn from contexts that differ markedly from the product placement context here, the processes nevertheless hold an obvious parallel: both involve judgments about two attitudinal objects (in our case, the placed vs. competing brand) based on context relevance (in our case, the integration quality of the product placement). The present study is unique in that we look at whether the brand–plot relevance leads to assimilation or contrast effects between the placed and competing brands, whereas previous research typically examines whether the relevance between the target and compared objects leads to assimilation or contrast effects between the target and compared objects.

Given the assumption that the brand–plot relevance of a well integrated placement and the brand–plot irrelevance of an intrusively integrated placement result in assimilation and contrast effects, respectively, how does the variable of our focus—cognitive load—affect the direction of these assimilation and contrast effects? When assimilation effects occur for a well integrated placement, as the upper section of Figure 2 illustrates, we expect that viewers' attitude toward both the placed and competing brand will shift downward if viewers are under cognitive

load (vs. no load) because, as discussed earlier, reduced availability of cognitive resources will exacerbate the elaboration-driven brand–plot integration effect.

H2.1: Assimilation Effect. For a well integrated product placement, cognitively unloaded participants, compared with cognitively loaded participants, will have a more positive attitude both toward the placed and the not-shown competing brand.

Place Figure 2 about here

On the other hand, when contrast effects occur for an intrusively integrated placement, as the lower section of Figure 2 illustrates, we expect that the intrusively integrated placement will cause a boomerang effect if viewers are able to allocate sufficient cognitive resources to the full processing of the brand–plot integration. This effect results because brand/plot-relevant thinking will result in corrective mechanisms, such as counter-argumentation or reactance (Brehm 1966; Friestad and Wright 1994, 1995; Russell 2002). Because reactance leads consumers to desire an item outside the choice set (Clee and Wicklund 1980), in response to a poorly integrated placement consumers may denigrate the brand and perhaps favor a brand other than the one shown (Fitzsimons and Lehmann 2004). For brands that compete in a duopolistic environment, though, disgruntled consumers have only one available option: the alternative competitor.

In short, consumers who observe intrusively integrated placements may become quite displeased and, rather than simply ignoring the placement, may react with increased favorable attitudes toward the competitor brand. In effect, the offending product might actually cause a

backlash that benefits the rival. However, this reactance would take effect only when consumers have enough cognitive resources to allocate to information processing. Thus, when multitasking limits viewers' cognitive resources, such reactance responses would not occur, as in H1, where the brand–plot irrelevance (vs. brand–plot relevance) attracts more attention and makes the brand highly salient, an effect that then transfers to the consumer's attitude toward the shown brand. Thus, we propose the following two-way interaction:

H2.2: Contrast Effect. For an intrusively integrated product placement, cognitively unloaded participants will have a more *negative* attitude toward the placed brand than toward the not-shown competing brand (boomerang effect), but cognitively loaded participants will have a more *positive* attitude toward the placed brand than toward the not-shown competing brand (heuristic effect).

PRETESTS AND SELECTION OF STIMULUS SCENES

In the current research, we define placement integration as (1) how well the product placement is integrated into the storyline, (2) how relevant the product placement is to the plot, and (3) how intrusive the product placement is to the movie-watching experience. This definition reflects the earlier suggestions in the literature—for example, “linking the audience to the story” (Karrh 1998, p. 43) and “plot connection” (Russell 2002, p. 308). In addition, because prior research identifies placement conspicuousness as an important variable in attitude formation (Brennan, Dubas, and Babin 1999; Gupta and Lord 1998; Schneider and Cornwell 2005), in this study we restrict our investigation to conspicuous placement calling for the main actor to noticeably touch, use, or interact with the product. Using an eight-step process described later,

we collected, screened, and selected the stimulus scenes through a series of qualitative evaluations and quantitative pretests.

Initial Pool of Stimulus Scenes

A search of YouTube using variations of the keywords *product placement* produced 46 scenes with conspicuous placements that four independent judges then reviewed, discussed, and narrowed to 10 scenes. The judges unanimously agreed that the main characters in all the selected scenes conspicuously interact with the placed product (e.g., the actor drives a Cadillac in *Matrix Reloaded*).

Screening of Stimulus Scenes

Three judges examined the scenes and after extensive discussion reduced the pool to four clips: one movie scene and one TV scene in which the placed products were judged to be well integrated and one movie scene and one TV scene in which the placed products were judged to be intrusively integrated. The judges selected FedEx, placed in *Runaway Bride* (movie), and Vitamin Water, placed in *Gossip Girl* (TV series), as well integrated product placements. They selected Pepsi, placed in *The Thomas Crown Affair* (movie), and Verizon, placed in *30 Rock* (TV series), as intrusively integrated product placements. These four clips were edited to a length of approximately 50 seconds each.

Pretest 1: Conspicuousness

Pretest 1 ensured that the chosen clips represented conspicuous product placements by determining whether, after a time delay, participants recalled the brands shown in the scenes. Forty participants were randomly assigned to view either the movie scenes (Pepsi placed in *The*

Thomas Crown Affair and FedEx placed in *Runaway Bride*) or the TV scenes (Verizon placed in *30 Rock* and Vitamin Water placed in *Gossip Girl*). In both conditions, participants viewed five clips—the two target clips (which appeared in the second and fourth positions) and three filler clips that had no product placements (e.g., a scene from *Seinfeld*). Next, participants were told that the experiment was over and they were asked to perform an unrelated task for about 20 minutes. Subsequently, to check whether the products were truly *conspicuously* placed, participants were asked to recall and write down the brand names that appeared in the clips they had seen earlier. As expected, the free-recall task revealed that the majority of participants correctly remembered the brands they were exposed to in both conditions, indicating that the target clips were in fact conspicuous product placements. Among the 21 participants in the TV series condition, 20 (95%) correctly recalled at least one brand, and 17 (81%) recalled both brands (Verizon and Vitamin Water). Among the 19 participants in the movie condition, 19 (100%) correctly recalled at least one brand, and 17 (90%) recalled both brands (FedEx and Pepsi).

Pretest 2: Integration and Relevancy

Pretest 2 checked the integration quality and relevancy of the placements. Ninety-seven participants went through the first two steps of the Pretest 1 process of viewing the clips and performing an unrelated task. Next, while a video screen featured shots with the target products in view, participants evaluated the shown brands on the plot-relevancy and integration dimensions by answering the following questions: “How relevant was this product to the plot of the video?” and “How well was the product integrated in the video?” Responses to these questions were recorded on a five-point scale ranging from (1) *not relevant* to (5) *very relevant* and from (1) *not at all* to (5) *very well*, respectively. One-sample *t* tests showed that, for the

movie condition, FedEx placed in *Runaway Bride* scored significantly higher than the midpoint (3) on relevancy ($M = 3.54$; $t(45) = 2.74$, $p < .01$) and integration ($M = 4.12$; $t(45) = 6.77$, $p < .01$), whereas Pepsi placed in *The Thomas Crown Affair* scored significantly lower than the midpoint (3) on relevancy ($M = 1.80$; $t(45) = -8.68$, $p < .01$) and integration ($M = 2.65$; $t(45) = -2.27$, $p < .05$). These results indicated that FedEx placed in *Runaway Bride* was perceived to be plot-relevant and well integrated, and Pepsi placed in *The Thomas Crown Affair* was perceived to be plot-irrelevant and poorly integrated. On the other hand, for the TV series condition, no chosen placement was significantly different from the midpoint (3) on relevancy and integration ($ps > .5$), except that Vitamin Water placed in *Gossip Girl* scored significantly lower than the midpoint (3) on relevancy ($M = 2.09$; $t(50) = -5.22$, $p < .01$). Accordingly, the TV product placements (Vitamin Water in *Gossip Girl* and Verizon in *30 Rock*) were dropped, and only the movie product placements were included in the final stimulus set. Exposure durations for each brand in the final set were 23 seconds (in the 51-second clip of *Runaway Bride*) and 21 seconds (in the 49-second clip of *The Thomas Crown Affair*).

Pretest 3: Intrusiveness

Pretest 3, with a sample of 30 participants, confirmed the prior differences on the relevance and integration dimensions (all ps were $< .01$), and additionally revealed that viewers considered the placement of FedEx in *Runaway Bride* ($M = 2.57$) to be less intrusive ($F(1, 29) = 4.57$, $p < .01$) than the placement of Pepsi in *The Thomas Crown Affair* ($M = 3.23$). In addition, these two clips met another important criterion for this research: both brands have a clearly identifiable competitor in an essentially duopolistic domestic market—FedEx versus UPS and Pepsi versus Coke.

Pretest 4: Program Liking

For Pretest 4, with a sample of 85 participants, we created and tested placebo versions of each stimulus clip in the final stimuli set for the control condition by editing a different scene from each movie to the same length (approximately 50 seconds). Independent sample t tests showed that the stimulus clip and the placebo clip for *Runaway Bride* ($t(45) = -1.21, p = \text{n.s.}$) and *The Thomas Crown Affair* ($t(36) = -.98, p = \text{n.s.}$) did not significantly differ on program liking, which was based on being absorbing, amusing, cheerful, complicated, engaging, exciting, happy, humorous, interesting, involving, stimulating, and thought-provoking ($\alpha = .92$; Furnham, Gunter, and Richardson 2006).

Pretest 5: Prior Exposure to the Stimulus Movies

Pretest 5, with a sample of 43 participants, examined whether prior exposure to the stimuli movies influenced the target-dependent variables: attitude toward the shown brand and not-shown competing brand.² Independent sample t tests demonstrated that participants who had previously watched and those who had not watched *Runaway Bride* did not differ significantly on their attitude toward the placed brand, FedEx ($t(41) = .12, p = \text{n.s.}$), and the competing brand, UPS ($t(41) = .45, p = \text{n.s.}$). Similarly, those who had previously watched and those who had not watched *The Thomas Crown Affair* did not differ significantly on their attitude toward the placed brand, Pepsi ($t(41) = -.12, p = \text{n.s.}$), and the competing brand Coke ($t(41) = -.10, p = \text{n.s.}$).

Pretest 6: Demonstration of the Integration Effect

Pretest 6 validated, with 40 participants, the well established assumption that a well integrated placement produces a more positive affective attitude toward the brand than an

² Attitude was measured with the same items used in Pretest 6 and the main study (all α s > .90).

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intrusively integrated placement (Cowley and Barron 2008; Gupta and Gould 1997; Lehu 2007; Stern and Russell 2004; Wei, Fischer, and Main 2008; Yang and Roskos-Ewoldsen 2007). Using the stimulus scenes developed earlier, the study employed a 2 x 2 mixed design with placement exposure (presence vs. absence of product placement) serving as a between-subjects factor and placement type (FedEx in *Runaway Bride* vs. Pepsi in *The Thomas Crown Affair*) serving as a within-subjects factor. A 2 x 2 repeated-measures GLM on attitude toward the target brand revealed a significant placement exposure x placement type interaction in the expected direction ($F(1, 38) = 5.88, p < .05$), confirming that a well integrated conspicuous brand placement evokes a more positive attitude than an intrusively integrated placement. As expected, contrasts showed no difference in attitude toward Pepsi ($M_{pepsi} = 4.94$) and FedEx ($M_{fedex} = 5.01$) in the no-exposure condition ($F(1, 21) = .33, p = n.s.$), but attitude toward FedEx ($M_{fedex} = 5.49$) was significantly higher than that of Pepsi ($M_{pepsi} = 4.34$) in the exposure condition ($F(1, 17) = 11.82, p < .01$).

MAIN STUDY

The goals of the main study were twofold: (1) to test whether cognitive load changes the relationship between the placement integration and the consumer's attitude toward the placed brand (H1), and (2) to explore whether brand–plot integration and cognitive load jointly determine the attitude toward the competing brand, which is not shown, relative to the placed brand (H2.1 and H2.2).

Method

Participants and design. We recruited 65 undergraduate students from a northeastern private university. The study employed a 2 x 2 x 2 mixed design, with cognitive load (cognitively loaded vs. natural) serving as a between-subjects factor and placement type (FedEx in *Runaway Bride* vs. Pepsi in *The Thomas Crown Affair*) and attitude toward the target versus competing brand (FedEx vs. UPS, Pepsi vs. Coke) serving as within-subjects factors.

Stimuli. We used the experimental and control sets selected in the pretests. Both sets contained one-minute excerpts from five popular movies or TV shows: *Austin Powers*, *Runaway Bride*, *Gossip Girl*, *The Thomas Crown Affair*, and *30 Rock*. Among the clips in the experimental set were the two counterbalanced stimuli clips in the second and fourth positions, along with three filler clips. In the control set, participants watched the placebo clips in the second and fourth positions along with the three filler clips that were used in the experimental set. In the well integrated/plot-relevant experimental scene from *Runaway Bride*, the female lead leaps into a FedEx truck and flees her groom on her wedding day. In the intrusively integrated/plot-irrelevant scene from *The Thomas Crown Affair*, the actress abruptly cuts off her conversation with another actor, strides to a vending machine, extracts a can of Pepsi, and gulps it down. As noted earlier, both clips conspicuously featured the brands.

Procedure. The data were collected in a computer lab. On entering the lab, participants were seated in front of a computer screen that randomly presented either the experimental or control set. Each station was isolated from the others to the extent that participants could not see or hear what was occurring at the other stations, and participants wore headsets that transmitted the soundtracks and blocked out extraneous noises. Participants were told that they would be in three unrelated experiments. The first study would involve watching video clips, and the second and third experiments would involve answering questionnaires. In the first experiment,

participants viewed the video clips. Then they were told that the first study was over and that they would participate in another study. The second filler experiment lasted for about 20 minutes, during which they responded to a set of unrelated questions presented on the computer screen. In the third experiment, they completed the target-dependent measures described next.

Cognitive load. We placed half of the participants in the cognitive load condition and asked them to remember and repeat eight numbers (94658952) while watching the clips. The other half, in the natural condition, watched the clips as they would normally. This task was adapted from past research and has been shown to influence the degree of elaborative effort that can be allocated to an alternative task (Gilbert, Pelham, and Krull 1988; Pontari and Schlenker 2000). The cognitive load manipulation was successful: 17 of the 33 participants (52%) under the cognitive load condition accurately recalled the eight numbers, and the other 16 participants were slightly incorrect in their recall (e.g., 49658952). These results showed that participants indeed made efforts to remember the target numbers.

Measures. Considerable research suggests that persuasion effects hold only for predominantly affective attitudes and not for cognitive attitudes (Celuch and Slama 1993; Fabrigar and Petty 1999; Millar 1992; see also Drolet and Aaker 2002 for a thorough discussion). Thus, in this study we measured affective attitude toward the brand using eight items on seven-point scales: hate/love, sad/delighted, annoyed/happy, tense/calm, bored/excited, angry/relaxed, disgusted/acceptance, sorrow/joy (Crites, Fabrigar, and Petty 1994). We measured attitudes toward the target brands, FedEx ($\alpha = .95$) and Pepsi ($\alpha = .97$), and attitudes toward the competing brands, UPS ($\alpha = .93$) and Coke ($\alpha = .97$). In addition, to disguise the purpose of the study we measured attitudes toward four filler brands (Vitamin Water, Propel, AT&T, and T-Mobile). The

scores were averaged to produce an overall attitude score, with higher scores indicating more positive affect.

Further, because prior use of the brand might influence the hypothesized relationships, to control for potential confounding factors participants indicated whether the brands shown in the movie scenes—Pepsi and FedEx—were their usual brands (1 = user, 0 = non-user).

Results and Discussion

As Figure 3 shows, a 2 x 2 repeated-measures GLM with cognitive load (cognitively loaded vs. natural) as a between-subjects factor and attitude toward the placement type (FedEx in *Runaway Bride* vs. Pepsi in *The Thomas Crown Affair*) as a within-subjects factor revealed a significant placement cognitive load x placement type interaction ($F(1, 63) = 13.47, p < .01$). As H1 predicted, contrasts revealed that participants' attitude toward FedEx was significantly more negative ($M_{loaded} = 4.77$) when they watched the movie in a cognitively loaded state ($t(63) = -2.40, p < .05$) than when they watched the movie in a cognitively unloaded, natural state ($M_{natural} = 5.43$). However, participants' attitude toward Pepsi was more positive ($t(63) = 2.61, p < .05$) when they watched the movie in a cognitively loaded state ($M_{loaded} = 5.12$) than when they watched the movie in a natural setting ($M_{natural} = 4.23$).

Place Figure 3 about here

To rule out participants' prior experience with the target brands as an alternative explanation, we reanalyzed the data, this time including as covariates participants' usual brands

of soda (1 = Pepsi user, 0 = non-user) and mail carrier (1 = FedEx user, 0 = non-user). The two-way interaction between cognitive load x placement type remained significant ($F(1, 61) = 11.23$, $p < .01$) after controlling for these two variables.

The findings supported the notion that consumers who have insufficient cognitive resources to allocate to information processing may be forced to rely on the disruptive salience of the placement, where the intrusively integrated (vs. well integrated), plot-irrelevant (vs. plot-relevant) placement leads to inflated attitude. However, when consumers have ample cognitive resources available for information processing, they may be better able to fully digest the content so that the well integrated (vs. intrusively integrated), plot-relevant (vs. plot-irrelevant) placement results in a positive attitude.

Hypotheses 2.1 and 2.2 were tested using a 2 x 2 x 2 repeated-measures GLM with cognitive load (cognitively loaded vs. natural) as a between-subjects factor and placement type (FedEx in *Runaway Bride* vs. Pepsi in *The Thomas Crown Affair*) and attitude toward the placed versus competing brand (FedEx vs. UPS, Pepsi vs. Coke) as a within-subjects factor. We found a significant three-way interaction ($F(1, 63) = 11.66$, $p < .01$). To better understand the nature of the three-way interaction, we conducted follow-up tests of two-way interactions.

Place Figures 4 and 5 about here

As Figure 4 illustrates, for the well integrated placement (FedEx in *Runaway Bride*), an assimilation effect emerged as predicted in H2.1. A significant main effect for cognitive load

($F(1, 63) = 9.34, p < .01$) revealed that the attitude toward FedEx and UPS among participants in the cognitive load condition ($M_{load} = 4.82$) was more negative than among participants in the natural condition ($M_{natural} = 5.44$). Consistent with the assimilation hypothesis, analysis showed no cognitive load x attitude two-way interaction ($F(1, 63) = .12, p = n.s.$).

In contrast, as Figure 5 shows, for the intrusively integrated conspicuous placement (Pepsi in *The Thomas Crown Affair*), a contrast effect emerged as H2.2 predicted. Analysis revealed a cognitive load x attitude two-way interaction ($F(1, 63) = 13.92, p < .01$). Contrasts within *The Thomas Crown Affair* condition further revealed that when participants watched the movie clip in the natural, cognitively unloaded state, their attitude toward the intrusively placed product Pepsi ($M_{pepsi} = 4.23$) was more negative ($F(1, 31) = 14.21, p < .01$) than toward the not-shown competitor Coke ($M_{coke} = 5.38$). When participants watched the same movie clip in a cognitively loaded state, their attitude toward the intrusively placed product Pepsi ($M_{pepsi} = 5.12$) was marginally more positive ($F(1, 32) = 3.23, p < .10$) than toward the competitor Coke ($M_{coke} = 4.43$).

To rule out the potential effects of prior brand experience, we reanalyzed the data, this time including participants' usual brands of soda (1 = Pepsi user, 0 = non-Pepsi user) and mail carrier (1 = FedEx user, 0 = non-FedEx user) as covariates. The three-way interaction between cognitive load x placement type x brand interaction remained significant ($F(1, 61) = 9.49, p < .01$). The overall pattern of the two-way interactions also remained unchanged. For the intrusively integrated placement, the two-way interactions between cognitive load x attitude remained significant after controlling for the usual soda brand ($F(1, 62) = 10.77, p < .01$; contrast), and for the well integrated conspicuous placement (FedEx in *Runaway Bride* vs. Pepsi

in *The Thomas Crown Affair*), such interaction was absent after controlling for the usual mail carrier brand ($F(1, 62) = .06, p = \text{n.s.};$ assimilation).

The results suggest that an intrusively integrated placement might backfire and lower consumers' attitudes toward the placed brand, but only when ample cognitive resources are available. When consumers have insufficient cognitive resources to allocate to information processing, this reactance effect can be reversed, as viewers rely on heuristic-driven processing.

DISCUSSION, LIMITATIONS, AND FUTURE RESEARCH

The results of this research support the notion that factors on both ends of the communication spectrum—message factors and audience factors—jointly contribute to consumer attitude toward a placed brand. The present work offers, for the first time, evidence that a seamless integration's brand-enhancing effects can be dampened, and an intrusive integration's brand-damaging effects can be mitigated, if viewers are cognitively preoccupied with another task. Moreover, well integrated placement was found to produce *assimilation* between the placed brand and the not-shown competitor, whereas intrusively integrated placement was found to trigger *contrast* between the placed brand and the not-shown competitor. This observation is noteworthy given that no prior investigation of product placement has studied this phenomenon: Our findings suggest that, depending on the cognitive resources available to viewers at the moment of brand exposure, in a duopolistic market consumers might perceive the placed and competing brands either as similar products, fostering assimilation effects, or as comparison standards, fostering contrast effects.

These findings have interesting implications, both practically and theoretically. Perhaps most significant is that intrusive product placement may not always be counterproductive to the brand. In an environment usually filled with multiple accompanying activities (e.g., TV in a bar), marketers may benefit from in-your-face placement by making the brand stand out from the background. Whether the same holds true for different types of tasks—for example, homework or face-to-face conversation—is certainly worth further investigation.

Our research also suggests that effective placement enhances the brand, but ineffective placement weakens it. What is interesting, however, is that intrusive integration may go beyond simply hurting the brand; it may, in the form of reactance, enhance a rival brand that the audience does not even see. Because such suboptimal placements can be doubly costly for the sponsoring brand, marketers should plan carefully for product placement. Future research should continue to address when and how product placement can be self-defeating by reminding consumers of the competing brand.

However, the self-detrimental yet rival-enhancing effects of intrusive integration can be mitigated if viewers' cognitive capacities are limited. When viewers are cognitively busy engaging in other activities, a blatantly disruptive placement might work as well as a smoothly orchestrated placement. This point is particularly relevant to today's multimedia environment, where consumers rarely engage in single-medium tasking behaviors requiring full immersion of cognitive resources. Numerous products and brands are conspicuously and simultaneously displayed on TVs, computers, or iPods, constantly barraging modern consumers with extra information as they alternate among e-mails, text messages, and phone calls, all activities that require considerable cognitive resources. In this study, we attempt to reproduce this environment in a controlled lab setting by requiring participants to repeat and recall eight numbers while they

watch numerous movie scenes. Our study may lack validity outside the laboratory, because in real-life situations consumers might act differently. Future work should expand these investigations to a variety of other brands and settings.

The current research addresses an audience factor over which advertisers have little control. However, advertisers may be able to predict when such factors become influential, and our work calls for further investigation in this area to help advertisers identify and prepare for circumstances in which viewers are susceptible to environmental influences. Owing to the nature of the experimental design, the current research uses the simple dichotomy of “well integrated” and “intrusively integrated” placements to create contrasting extremes between the two types of product placements. We do not mean to suggest that advertisers should intentionally craft an ill-suited placement for multitasking viewers. Rather, advertisers should always strive for story-congruent placements. Nevertheless, they should pay extra attention to the *conspicuousness* of the placement if they expect the majority of the target audience to be multitasking at the time of exposure.

Our results may generalize only to environments in which other activities, such as movies on TV at home, easily distract consumers. Thus, these findings should be applied with caution, as they may be relevant only to those situations where most viewers are likely to devote themselves solely to the media experience, such as watching a film in a movie theater. Another limitation of this research is that we selected the scenes for the current study from YouTube, and this choice might have caused some unknown biases because these materials are readily available to the public. Although the merit of our approach lies in its highly realistic simulation, future research might address this issue in a true experimental design by using custom-produced visual stimuli.

While the carefully selected movie scenes provide an appropriate setting for the present research, the use of one-minute excerpts rather than a full-length movie presents a potential limitation. A reasonable assumption is that real-world viewers watching a full-length movie might react differently. Nevertheless, given that the current practice of product placement tends to show the placed products repetitively for an extended time period, we predict that the main findings from this research—the differences between single- and multitasking audiences—would be more pronounced in a full-length movie setting (Homer 2009; Jörg, Schemer, and Wirth 2007). On the one hand, among deeply immersed movie watchers, recurring exposure to a *well* integrated placement throughout the movie might provide the audience with more opportunities to elaborate and to appreciate the brand–plot connection, and thus enhance the positive placement effects. On the other hand, among cognitively distracted watchers, repetitive exposure to the *intrusively* integrated placement throughout the movie might lead to greater familiarity with the product and, consequently, more a positive evaluation of the brand (see Zajonc 1968 for mere exposure effects; see Janiszewski and Chandon 2007 for fluency effects). Future research might explore these questions by having participants view an entire movie or television program.

We hope the current results are sufficiently intriguing to motivate further work in these directions, especially as our data are in line with the long-held belief that many advertising dollars are spent less than ideally. To simply designate product placement as a better alternative to traditional advertising seems imprudent, since the effects of product placement depend largely on not only the brand’s placement into the media vehicle but also the target audience’s viewing environment.