Effects of Source Congruity on Brand Attitudes and Beliefs: The Moderating Role of Issue-Relevant Elaboration

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In this article, we examine the conditions under which source congruity affects brand attitudes and beliefs. Source congruity is defined as the degree of match between accessible endorser associations and attributes associated with the brand. When the level of issue-relevant elaboration is high, we propose that source congruity affects brand attitudes positively, as consumers seek brand-relevant information to form attitudes. When the level of issue-relevant elaboration is low, source congruity has less of an effect on brand attitudes, as consumers use peripheral cues or heuristics to form attitudes. Support for the hypotheses comes from three lab studies.

There is an extensive literature in psychology and marketing on the effects of source characteristics, such as liking, attractiveness, trustworthiness, expertise, and credibility, on consumer responses to advertising (Baker & Churchill, 1977; Dholakia & Sternthal, 1977; Kahle & Homer, 1985; McGuire, 1985; Petty & Cacioppo, 1986). Less emphasis has been placed on the effects of other source characteristics, such as specific brand attribute-related associations of endorsers of advertised products. Although researchers have suggested that endorsers that match the brands

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they endorse may be more effective than those that do not (McCracken, 1989), there is little empirical support for this proposition. Further, although attractive endorsers have been shown to enhance attitude toward attractiveness-related products (sometimes called the "match-up hypothesis"; Kahle & Homer, 1985, Kamins, 1990; Petty & Cacioppo, 1980), the effects of endorser-related brand attribute associations other than attractiveness have not been explored. For instance, it is unclear whether an endorser who is strongly associated with ruggedness, such as Clint Eastwood, is likely to generate more favorable attitudes toward a "rugged watch" than an endorser who is not strongly associated with ruggedness. Further, although the basic conceptualization of prior studies is that the effectiveness of sources that match the brand lies in their providing information about the attributes of the advertised brand, none has examined the effects of endorsers on brand attribute beliefs.

In this article, we examine the conditions under which endorser and brand associations interact to influence brand beliefs and attitudes. We use the term source congruity, defined as the degree of match between accessible endorser associations and attributes associated with the brand, to refer to this interaction between endorser and brand associations. For instance, for a rugged watch, Clint Eastwood (associated with toughness and ruggedness) would represent high congruity, whereas Tom Hanks (associated with nonruggedness, i.e., gentleness) would represent low congruity. Thus, congruity is based on specific endorser-related attribute associations rather than traditional source characteristics such as attractiveness, liking, expertise, or trustworthiness. In addition, although we focus on celebrity endorsers, our framework is applicable to noncelebrity endorsers as well.

Our definition of source congruity relies on the presence of accessible endorser-related attribute associations in memory. Consumers may have such associations for well-known celebrities, such as the toughness of Clint Eastwood, the humor of Billy Crystal, and the seriousness of Patrick Stewart. Accessibility of these associations may depend on both the strength with which they are held and on the persuasion context (Higgins & King, 1991). In the parlance of associative network memory models, strong associations are those that are closely tied to the endorser in memory, whereas weak associations are more distant (Anderson & Bower, 1973). Thus, strong associations are more likely to be primed than weak associations when the consumer encounters the endorser in an advertisement. In addition, the persuasion context may also make endorser associations salient. For instance, seeing an ad for a watch positioned as rugged may make salient ruggedness-related associations of the endorser, even though these may not be as strongly held.

Drawing on current models of how people process advertising (Chaiken, Liberman, & Eagly, 1989; Petty & Cacioppo, 1981), we make predictions about how and when source congruity may affect brand beliefs and attitudes. We propose that source congruity enhances brand attitudes only under conditions in which consumers engage in a high level of issue-relevant elaboration. When issue-relevant elaboration is low, source congruity is unlikely to affect attitudes. Instead, consum-
ers are likely to base brand attitudes on cues not directly related to the advertised brand, such as endorser attractiveness, liking, or trustworthiness. We test the predictions in three laboratory studies that use different operationalizations of source congruity.

CONCEPTUAL FRAMEWORK

Two conceptual models that have been widely used in the literature to understand how consumers process advertising are the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1986) and the Heuristic–Systematic Model (HSM; Chaiken et al., 1989; Eagly & Chaiken, 1993). Both models specify two types of cognitive processes that can affect persuasion: A central route (or systematic processing) in which consumers carefully scrutinize message arguments to determine the true merits of a message; and a peripheral route (or heuristic processing), in which consumers use cues that do not directly provide issue-relevant information. The two models are similar in terms of the conceptualizations of central–systematic processing, as well as the antecedents to this processing, but different in terms of the conceptualization of peripheral versus heuristic processing (Eagly & Chaiken, 1993). The HSM asserts that heuristics are learned knowledge structures, and that the accessibility of different knowledge structures determines which heuristic is used in different heuristic processing situations. The ELM states that peripheral cues are those that are not central to the true merits of the issue or message, but does not specify which peripheral cues are likely to be used. Although other differences between the two models have been identified (see Chaiken et al., 1989, for details), the core of the two models makes similar predictions about the effects of source congruity.

According to both models, the two types of persuasive processes lie on a continuum defined by the amount of issue-relevant elaboration during message processing. When the level of issue-relevant elaboration is high, product-relevant arguments are more likely to impact consumers’ brand attitudes.1 In contrast, when the level of issue-relevant elaboration is low, peripheral cues or heuristics present in the persuasive setting are more likely to impact attitudes. Factors that affect the level of issue-relevant elaboration include personal relevance (Petty, Cacioppo, & Schumann, 1983), consumers’ processing goal (MacKenzie & Spreng, 1992), judgmental confidence (Maheshwaran & Chaiken, 1991), and individual accountability (Tetlock, 1983). For instance, issue-relevant elaboration has been found to be high (low) when personal relevance is high (low), consumers have a goal of

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1Although the HSM allows both heuristic and systematic processing to co-occur, heuristics are expected to exert much less persuasive impact when individuals engage in high issue-relevant elaboration.
forming impressions of the brand (ad), individuals have low (high) judgmental confidence, and individual accountability is high (low).

Most studies that have examined the effects of celebrity endorsers consider celebrity endorsers as peripheral cues or heuristics (e.g., Petty et al., 1983; Sanbonmatsu & Kardes, 1988). For instance, Petty et al. (1983) demonstrated that under low levels of issue-relevant elaboration, a celebrity source served as a peripheral cue and led to more favorable attitudes toward a razor than did a non-celebrity source, because the celebrity endorser was more liked. However, under high levels of issue-relevant elaboration, endorser status did not affect attitudes. Petty and Cacioppo (1986) suggested, however, that a source may sometimes be used as a persuasive argument (see also Petty et al., 1983). This is likely when the source provides information that is central to an evaluation of the true merits of an issue. For instance, Petty and Cacioppo (1980) found that source attractiveness led to favorable attitudes toward a brand of shampoo under both high and low levels of issue-relevant elaboration. In a post hoc explanation, they argued that source attractiveness may have served as a product-relevant argument for shampoos, leading to more favorable attitudes in the high elaboration condition. Similar findings were also reported by Kahle and Homer (1985) in a study involving attitudes toward a brand of razor blades. Although they argued that celebrity attractiveness was an informative cue for razor blades, attractiveness was confounded with liking in their study.

Although these studies suggest that endorser congruity may enhance brand attitudes when the level of issue-relevant elaboration is high, they manipulate or measure the perceived congruity between the endorser and the brand or product. Hence, it is unclear whether the effects were due to congruity or to some other factor, such as liking or trustworthiness (e.g., see Eagly & Chaiken, 1993, p. 322; for alternative explanations for Petty & Cacioppo, 1980).

We propose that source congruity may affect brand attitudes differently under the two levels of issue-relevant elaboration. When the level of issue-relevant elaboration is high, consumers may scrutinize the ad for information that helps them form brand attitudes. Accessible endorser associations may be a source of brand information, acting as a persuasive argument; hence, source congruity is likely to be used to evaluate the brand. In ELM and HSM terms, because endorsers act as arguments, argument quality is strong when the endorsers are congruent, leading to favorable brand attitudes. When endorsers are incongruent with the brand, argument quality is weak, leading to less favorable brand attitudes. Strong arguments have been shown to lead to more favorable attitudes than weak arguments under high issue-relevant elaboration (Petty & Cacioppo, 1986).

When the level of issue-relevant elaboration is low, however, consumers are not actively trying to form a brand impression. Therefore, they may rely on peripheral cues or heuristics, such as endorser liking, trustworthiness, or attractiveness rather than persuasive arguments, to form brand attitudes (Eagly & Chaiken, 1993; Petty
This suggests that under low levels of issue-relevant elaboration, a congruent endorser is unlikely to enhance brand attitudes compared to an incongruent endorser. This leads to the first hypothesis (H):

**H1:** Source congruity should have a more favorable impact on brand attitudes when the level of issue-relevant elaboration is high as opposed to low.

### Source Congruity and Brand Beliefs

Our conceptualization in the previous section suggests that the effectiveness of endorsers depends partly on the ability of the endorser to provide information about brand attributes. Although attitudes are often considered as more proximal to choice than beliefs, in the context of our research question, brand beliefs are also likely to be an important measure of advertising effectiveness. Several models of attitudes (e.g., Expectancy–Value Model proposed by Fishbein & Ajzen, 1975) treat beliefs as important predictors of attitudes and propose that beliefs and attitudes ought to follow similar patterns if measured appropriately (see Fishbein & Middlestadt, 1995). Because the purpose of using congruent endorsers is to reinforce the brand’s positioning, it follows that, in the context of our study, brand beliefs might mirror the same patterns as attitudes.

The question is, Which brand attribute beliefs ought to be the appropriate measures of ad effectiveness? Both the ELM and HSM suggest that under conditions of high issue-relevant elaboration, only information that has high perceived reliability for forming attitudes is likely to be used in persuasion settings. This, in turn, suggests that only attributes that are relevant in the persuasion setting ought to be appropriate as measures of beliefs. For example, for a computer positioned “for the serious user,” beliefs about power may be more relevant than beliefs about user-friendliness, whereas for a computer positioned as “fun,” beliefs about user-friendliness may be more relevant than beliefs about power. Hence,

**H2:** Source congruity will have a significantly more favorable impact on beliefs about relevant brand attributes when the level of issue-relevant elaboration is high as opposed to low.

### STUDY 1

#### Design

The experiment was a 2 × 2 between-subject design. The two factors were processing goal (brand vs. ad) and celebrity congruity (high vs. low). The target brand was a hypothetical brand of wristwatches.
Processing goal manipulated the level of issue-relevant elaboration (MacKenzie & Spreng, 1992). High issue-relevant elaboration was represented by brand processing: Participants were asked to think about “how good you think these products are.” Low issue-relevant elaboration was represented by ad processing: Participants were asked to think about “how good you think these advertisements are.”

Endorser congruity was manipulated by using different endorsers for a brand of watches positioned as a “watch for the rugged.” The celebrities were selected based on pretests that elicited features and characteristics strongly associated with different celebrity endorsers. In an initial pretest, 40 participants from the same population as the main experiment were asked to write down characteristics associated with different celebrities. Strength of association was measured as the attribute mentioned first most often by participants. The attribute most strongly associated with Clint Eastwood was tough–rugged, mentioned first by 44% of participants. Other associations with Clint Eastwood, mentioned by at least 20% of participants, included cowboy–Westerns, macho, no nonsense, and Dirty Harry. The attribute most strongly associated with Tom Hanks was funny–comedian, mentioned first by 82% of participants. Other associations with Tom Hanks, mentioned by at least 20% of participants, included childish, actor, and gentle. This suggests that Clint Eastwood is strongly associated with ruggedness, whereas Tom Hanks is not.

In a second pretest, 21 participants rated the celebrities on a series of 7-point scales. Clint Eastwood and Tom Hanks were rated equally on liking (Ms 5.38 vs. 5.69), $p < .40$, attractiveness ($M$s 5.10 vs. 5.21) and trustworthiness ($M$s 5.43 vs. 5.38) indicating their equivalence on these dimensions. However, Clint Eastwood was rated as more tough than Tom Hanks ($M$s 6.27 vs. 3.62), $t(20) = 11.20, p < .0001$. Thus, for a watch with the positioning “for the rugged,” Clint Eastwood represented high congruity and Tom Hanks represented low congruity.

Procedure

Participants engaged in a study on new products. They were given a booklet that contained the target ads and questionnaire. Each booklet contained two ads for the target brand of Omicron watches, which was positioned as a “watch for the rugged.” The two ads were different executions of the same treatment. The instructions stated that the booklet contained some ads for new products and that once they were done with a page, they should not look back. They were assured of the confidentiality of their responses and encouraged to give their true, natural reactions. The instructions also contained the processing goal manipulation.

Participants were 80 undergraduate students at a southern university who were part of the psychology participant pool. Participants were randomly assigned across conditions.
Stimuli

Each participant saw two ad executions for the same treatment. In Execution 1, the headline stated “Introducing A Watch for the Rugged ... The Omicron Watch.” The copy stated: “Introducing the exquisite design of Omicron watches. This quartz watch features a white dial with illuminated hands, surrounded by a unidirectional bezel with a genuine leather band or pilot metal bracelet. For those who are rugged ...” In Execution 2, the headline stated “How Does _ Tell Time?” in which the blank represented the name of the celebrity. The copy stated: “Introducing the new Omicron watch. Exquisitely designed to meet your standards. Omicron has a unidirectional bezel with a genuine leather band or pilot metal bracelet. A watch for the rugged ...” Both ads featured a picture of the celebrity endorser and a picture of the watch.

Measures

*Thought protocols.* Directly after ad exposure and prior to filling out rating scales, participants were instructed to write down thoughts that went through their head when they saw the advertising for Omicron watches. They were directed to write down any thoughts they had, however relevant or irrelevant. Two judges coded the protocols for the total number of product-relevant thoughts (i.e., thoughts about the brand or about watches in general) and positive and negative congruity thoughts. Positive congruity thoughts concerned the successful match of the endorser to the brand image (e.g., Clint Eastwood fits with a rugged watch), whereas negative congruity thoughts were counterarguments about the lack of endorser–brand match (e.g., Why’s Tom Hanks endorsing a rugged watch?). Reliability between the two judges was greater than .89, and disagreements were resolved by discussion.

The total number of product-relevant thoughts served as a manipulation check of the processing goal factor. Burnkrant and Howard (1984) suggested that the amount of elaboration is a good measure of the level of issue-relevant elaboration.

*Perceived congruity.* The congruity manipulation was assessed in two ways. First, a congruity index (positive – negative congruity thoughts) was created from the thought protocols. Second, participants rated the perceived congruity of the endorser on three 7-point scales ranging from 1 (low congruity) to 7 (high congruity)—inappropriate/appropriate, fits poorly with the brand/fits well with the brand, does not match the brand/matches the brand (α = 0.85)

*Brand attitude.* Attitude-toward-the-brand (Ab) was an average of four scales: high quality/low quality, good/bad, likable/unlikable, and appealing/unap-
pealing (α = 0.92) on a 7-point scale ranging from 1 (less favorable) to 7 (more favorable).

**Brand beliefs.** For a "watch for the rugged," toughness was considered the relevant attribute. The perceived toughness of the brand was measured with three items on 7-point scales: tough/not tough, reliable/unreliable, durable/not durable (α = 0.84). Factor analysis revealed that beliefs and attitudes loaded on separate factors.

Celebrity characteristics, such as liking, trustworthiness, and expertise were also measured on 7-point scales. Although we took other measures, such as watch familiarity and knowledge, they are not discussed here because they are irrelevant to the hypotheses.

**Results**

**Issue-relevant elaboration.** To assess whether motivation affected participants' issue-relevant elaboration, we examined the amount of product-related elaboration in the protocols. A 2 × 2 analysis of variance (ANOVA) revealed a significant main effect of goal on the number of product-related thoughts. Compared to the ad processing condition, the brand processing condition had a higher number of product-related thoughts (Ms 1.87 vs. 1.10), $F(1, 76) = 7.14, p < .01$, suggesting more product-relevant elaboration. There were no other significant treatment effects on the number of product-related thoughts. Thus, the processing goal successfully manipulated the level of issue-relevant elaboration.

**Congruity.** Perceived congruity was higher under high congruity than low congruity based on both the congruity index (Ms −0.05 vs. −0.80), $F(1, 76) = 12.43, p < .001$, as well as the rating of perceived congruity between the endorser and the brand (Ms 4.63 vs. 2.72), $F(1, 76) = 38.43, p < .0001$. There were no other significant treatment effects on the two measures of perceived congruity. Thus, the congruity manipulation was successful.

**Celebrity perceptions.** Because different celebrities were used across congruity conditions, we wanted to ensure that the celebrities were equivalent on dimensions other than congruity. Although the celebrities were rated as equivalent on liking, ANOVA found significant effects of goal and congruity on perceptions of trustworthiness. In particular, unlike the participants in the pretest, participants in this study perceived Tom Hanks as more trustworthy than Clint Eastwood (Ms 4.28 vs. 4.83), $F(1, 76) = 4.48, p < .04$. However, as described later, trustworthiness did not confound the congruity manipulation.
Hypothesis Tests

**Brand attitude (Ab).** We expected (H1) more positive congruity effects under conditions of high issue elaboration than under low issue-relevant elaboration. ANOVA revealed a significant Goal × Congruity interaction effect on Ab, $F(1, 76) = 8.64$, $p < .005$. As predicted, under high issue-relevant elaboration, Ab was more favorable under high than low congruity ($Ms$ 4.91 vs. 4.38), $F = 4.05$, $p < .05$; under low issue-relevant elaboration, Ab was significantly less favorable under high than low congruity ($Ms$ 4.60 vs. 5.15), $F = 4.61$, $p < .04$ (see Table 1 for cell means). There were no other significant treatment effects on Ab.

Given that the congruity manipulation also affected perceptions of endorser trustworthiness, we partialed out the effects of trustworthiness by including trustworthiness as a covariate in an analysis of covariance (ANCOVA) on Ab. If trustworthiness accounted for the interaction effect, the significance of the interaction effect should disappear. ANCOVA showed that both the covariate, $F(1, 75) = 6.80$, $p < .01$, and the Goal × Congruity interaction were significant, $F(1, 75) = 8.17$, $p < .01$. This suggests that trustworthiness does not account for our findings.

**Brand beliefs.** We expected (H2) that issue-relevant elaboration would moderate the effect of congruity on brand beliefs. ANOVA showed a significant interaction effect on perceptions of the brand's toughness, $F(1, 76) = 5.04$, $p < .03$. In the high issue-relevant elaboration condition, the brand was perceived as tougher under high than low congruity ($Ms$ 5.16 vs. 4.40), $F = 5.67$, $p < .02$. Under low issue-relevant elaboration, the brand was perceived as equally tough under both levels of congruity ($Ms$ 4.79 vs. 5.03), $F = 0.60$, $p < .44$. There were no other significant treatment effects on brand toughness.

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*Ratings on 7-point scales ranging from 1 (low) to 7 (high)
Discussion

We found support for the notion that celebrity congruity would be more likely to affect brand attitudes and beliefs under high issue-relevant elaboration than under low issue-relevant elaboration. Whereas congruity enhanced brand attitudes under high issue-relevant elaboration, participants appeared to be using trustworthiness as a cue for brand attitude under low issue-relevant elaboration. This is a strong test of Petty and Cacioppo’s (1986) hypothesis that a source may serve as a persuasive argument or a peripheral cue.

A possible limitation of Study 1 is that different celebrity endorsers were used across high and low congruity, which might create some unintended celebrity-specific differences that might explain the effects. Moreover, asking people to provide thought protocols prior to the ratings may have increased critical thinking in both processing goal conditions. Therefore, in Study 2, we attempt to replicate the results of Study 1 by using the same endorser across conditions and by taking attitude ratings prior to the thought protocol measure.

STUDY 2

Design

The experiment was a 2 x 2 between-subject design. The two factors were processing goal (brand vs. ad) and celebrity congruity (high vs. low). Participants were 67 undergraduate students who took part in the study to earn extra credit.

Processing goal was manipulated as before. Celebrity congruity was manipulated by the positioning of the Omicron watch. The watch was endorsed by a single celebrity, Clint Eastwood. In the high congruity condition, the watch was positioned as “a watch for the rugged.” In the low congruity condition, the watch was positioned as “a watch for the romantic.” Based on the pretests discussed in Study 1, we expected Clint Eastwood to be incongruent with a romantic watch, and we reinforced this by using a photo in which he was pointing a gun; the photo was congruent with ruggedness and incongruent with romance.

Besides the congruity manipulation, there were some procedural differences from Study 1. First, participants saw only one ad execution for Omicron watches. Second, the order of the measures was different. The thought protocols were assessed after the brand attitude ratings, and the measure itself was different. Participants were asked to write down the thoughts that went through their heads as they were giving their impressions of Omicron watches. The protocols were coded as before. Interjudge reliability was greater than .91, and disparities were resolved through discussion. Finally, the belief ratings were separated from the attitude ratings by the thought protocol measure, as well as by ratings about category liking, sex, and other covariates.
Results

Issue-relevant elaboration. A 2 x 2 ANOVA revealed a significant main effect of goal on the number of product-related thoughts under brand than ad processing (Ms 2.21 vs. 1.38), F(1, 63) = 5.33, p < .03. There were no other significant treatment effects on the number of product-related thoughts. Hence, processing goal successfully manipulated the level of issue-relevant elaboration.

Congruity. Perceived endorser congruity was higher when the endorser was congruent with the brand image (rugged watch) than when the endorser was incongruent (romantic watch) based on both the congruity index (Ms -0.21 vs. -0.73), F(1, 63) = 8.50, p < .005, and the rating of perceived congruity (Ms 3.54 vs. 2.37), F(1, 63) = 12.36, p < .001. There were no other significant treatment effects on the perceived congruity measures. Hence, the congruity manipulation was successful.

Hypothesis Tests

Brand attitudes. ANOVA revealed a significant interaction effect on Ab, F(1, 63) = 4.73, p < .05. As expected (H1), under high issue-relevant elaboration, brand attitude was more favorable under high than low congruity (Ms 5.13 vs. 4.33), F(1, 63) = 4.86, p < .03. Under low issue-relevant elaboration, brand attitude was not significantly different across levels of congruity (Ms 4.59 vs. 4.90), F(1,63) = 0.74, p < .40. See Table 2 for cell means. There were no other significant treatment effects.

Brand beliefs. We expected (H2) brand beliefs to follow the same pattern as attitudes. There was a significant main effect of Congruity on belief ratings of the brand's toughness, with the ratings being higher under high than low congruity (Ms 5.11 vs. 4.36), F(1, 63) = 8.70, p < .005. There were no other significant treatment effects. Thus, as expected, beliefs followed the pattern of attitudes when issue-relevant elaboration was high, in which high congruity led to more favorable attitudes and beliefs. However, contrary to expectation, when issue-relevant elaboration was low, attitudes were unaffected by congruity, but high congruity led to more favorable beliefs about the brand's toughness.

Discussion

This study confirmed the attitude findings from Study 1 in a setting in which endorser associations were the same across congruity levels. Endorser congruity
enhanced brand attitudes under high issue-relevant elaboration but not under low issue-relevant elaboration. However, the pattern on beliefs about the brand’s toughness followed attitudes only under high issue-relevant elaboration. Under low issue-relevant elaboration, beliefs and attitudes were different. One reason may be that the measures intervening between attitudes and belief ratings may have affected the results.

Although Study 2 eliminated the confound of using different endorsers across congruity levels, the brand images of the watches were different. Again, this may have caused some unintended differences across treatments. Therefore, to eliminate these confounds, in Study 3 we crossed endorsers with brand image. In addition, to show generalization of the phenomenon, we used a different product class (personal computers) and a different set of endorsers (Patrick Stewart & Billy Crystal).

**STUDY 3**

**Design**

The experiment was a $2 \times 2 \times 2$ between-subject design. The three factors were processing goal (brand vs. ad), endorser (Patrick Stewart vs. Billy Crystal), and brand image (serious vs. fun). The target brand was a hypothetical brand of personal computers called Zennex. Processing goal was manipulated as before.

Brand image was manipulated by describing the target brand as either an easy to use, fun computer, or as a serious, powerful computer. For the serious computer, the headline stated: “Patrick Stewart (Billy Crystal) Introduces a Personal Computer for the Serious User.” The first paragraph of the copy stated: “I want a personal computer that’s going to be serious—a machine that’s powerful and state-of-the-art.” The second paragraph described Zennex personal computers as “serious as
they come. Their powerful memory and state-of-the-art technology make them the perfect PC for people who want a serious machine."

For the fun computer, the headline stated, "Patrick Stewart (Billy Crystal) Introduces a Personal Computer That’s Fun." The first paragraph of the copy stated: "I want a personal computer that’s going to be fun—a machine that’s easy to use and state-of-the-art." The second paragraph described Zennex computers as "a whole lot of fun. Their user-friendly features and state-of-the-art technology make them the perfect PC for people who want a fun machine."

Endorser congruity was manipulated by matching the endorser with the brand image. There were two endorsers, Patrick Stewart or Billy Crystal. A pretest involving 34 participants from the same population as the experiment indicated that Patrick Stewart was strongly associated with "serious thinker" (e.g., serious, thoughtful, intelligent), mentioned first by 52% of the participants (other associations with Patrick Stewart, mentioned by at least 20% of participants, were "bald" and "commanding voice"). The attribute most strongly associated with Billy Crystal was funny/comedian, mentioned first by 68% of participants (other associations included "movie star").

Thus, high congruity was represented by Patrick Stewart’s endorsing a serious machine and Billy Crystal’s endorsing a fun machine. Low congruity was represented by Billy Crystal’s endorsing a serious machine and Patrick Stewart’s endorsing a fun machine.

In the same pretest, participants were asked to rate the two celebrities in terms of their appropriateness as endorsers of either the fun computer (rated by half the participants) or the serious computer (rated by the other half). Appropriateness was measured on a 7-point scale ranging from 1 (not at all appropriate) to 7 (very appropriate). A between-subject analysis showed that Patrick Stewart was perceived as more appropriate for a serious computer than for a fun computer (Ms 6.14 vs. 2.69), $F(1, 32) = 48.80, p < .0001$. Billy Crystal was perceived as more appropriate for a fun computer than for a serious computer (Ms 2.70 vs. 6.06), $F(1, 32) = 65.80, p < .0001$. In addition, because participants rated the appropriateness of each endorser for the serious or the fun positioning, we were able to run within-subjects tests as well. These revealed that Patrick Stewart was perceived as more appropriate than Billy Crystal for a serious computer (Ms 6.14 vs. 2.70), $F(1, 32) = 63.03, p < .0001$, whereas Billy Crystal was more appropriate than Patrick Stewart for a fun computer (Ms 2.69 vs. 6.06), $F = 83.07, p < .0001$. These results supported the congruity manipulations.

Procedure

The procedure and order of measures were similar to that of Study 1. Participants saw a booklet of three ads, in which the target ad for Zennex personal computers was the second ad. They then filled out a questionnaire about their impressions of
Zennex PCs. Participants were 155 undergraduates who received extra credit for participation.

**Stimuli**

There were four versions of the target ad, representing the different levels of endorser and brand image. The ads contained a headline, a photograph of the celebrity endorser as well as the personal computer, body copy, and a tagline. The tagline, constant across all versions of the ad, gave a toll-free number and web address for further information.

**Measures**

*Thought protocols.* Prior to filling out rating scales, participants were instructed to write down the thoughts that went through their head when they saw the advertising for Zennex personal computers. Two judges coded the protocols as before. Reliability between the two judges was greater than .90, and disagreements were resolved by discussion.

*Ratings.* Brand attitude ($\alpha = 0.87$) and perceived congruity (.94) were measured as before. We measured two sets of relevant brand beliefs: the perceived power of the machine (low performance/high performance, not very powerful/very powerful, not technically advanced/technically advanced, out of date/state of the art, $\alpha = 0.90$) and user-friendliness (serious/fun, difficult to use/easy to use, business-oriented/family oriented, $\alpha = .76$). Factor analysis revealed that attitudes, beliefs about power, and beliefs about user-friendliness loaded on separate factors.

**Results**

*Issue-relevant elaboration.* A $2 \times 2 \times 2$ ANOVA revealed a significant main effect of goal on the number of product-related thoughts—compared to the ad processing condition, the brand processing condition had a higher number of product-related thoughts ($Ms 1 38 \text{ vs. } .69$), $F(1, 147) = 12.66, p < .001$. There were no other significant treatment effects on the number of product-related thoughts. Thus, the processing goal successfully manipulated the extent of issue-relevant elaboration.

*Congruity.* ANOVA revealed a significant main effect of endorser on the congruity-index, $F(1, 147) = 35.50, p < .0001$, as well as on the rating of perceived congruity, $F(1, 147) = 39.16, p < .0001$. In addition, there was a significant Endorser $\times$ Image interaction on both the index, $F(1, 147) = 20.64, p < .0001$, as well as the
rating measures, \( F(1, 147) = 10.71, p < .001 \). There were no other significant treatment effects on the two measures.

We had expected Patrick Stewart to be more congruent with a serious rather than fun computer, and Billy Crystal to be more congruent with a fun rather than serious computer. The Endorser \( \times \) Image interaction showed that this was true: Patrick Stewart was significantly more congruent with the serious than fun computer (\( Ms \ Index \ .24 \) vs. \(-.35\), \( F(1, 147) = 5.61, p < .02 \), (\( Ms \ Rating \ 4.38 \) vs. \( 3.61 \), \( F(1, 147) = 4.73, p < .03 \). In addition, Billy Crystal was more congruent with the fun rather than serious computer (\( Ms \ Index \ -0.60 \) vs \(-1.56\), \( F(1, 147) = 17.02, p < .0001 \), (\( Ms \ Rating \ 2.92 \) vs. \( 2.12 \), \( F(1, 147) = 6.09, p < .02 \).

Based on the pretests, we had also expected that for the serious computer, Patrick Stewart would be a more congruent endorser than Billy Crystal, whereas for the fun computer, the opposite would hold. Contrasts showed that only the first of these was true: Patrick Stewart was more congruent than Billy Crystal with a serious computer (\( Ms \ Index \ .24 \) vs. \(-1.56\), \( F(1, 147) = 53.37, p < .0001 \), (\( Ms \ Rating \ 4.38 \) vs \( 2.12 \), \( F(1, 147) = 44.19, p < .0001 \). Contrary to expectations, Billy Crystal was not more congruent than Patrick Stewart with a fun computer. Whereas the congruity index showed no significant difference across the two endorsers for the fun computer, the rating showed that Billy Crystal was perceived as less congruent than Patrick Stewart (\( Ms \ Index \ -60 \) vs \(-.35\), \( F(1, 147) = 1.04, p < .31 \), (\( Ms \ Rating \ 2.92 \) vs. \( 3.61 \), \( F(1, 147) = 4.58, p < .04 \).

In short, it appears that the congruity manipulation was successful in three of the four sets of comparisons. Therefore, we will present our HS tests as contrasts of the three conditions in which perceived congruity was significantly different across both measures. Although the two measures of congruity do not allow a comparison involving the fun computer (the congruity index from thought protocols suggests that there are no differences; the ratings suggest that Billy Crystal is less congruent than Patrick Stewart), we will present results on this fourth case for the sake of completeness rather than to test hypotheses. Table 3 summarizes the cell means, and Table 4 summarizes the predictions and the results of the \( H \) testing for the four sets of comparisons.

Hypothesis Tests

**Brand attitude (Ab).** We predicted (H1) that the level of issue-relevant elaboration would moderate the effect of source congruity on brand attitudes. There was a significant main effect of endorser, \( F(1, 147) = 14.50, p < .0002 \), and a significant Goal \( \times \) Image \( \times \) Endorser interaction effect on Ab, \( F(1, 147) = 6.27, p < .01 \). Thus, we used planned comparisons to test our predictions about the effects of congruity on brand attitudes (H1).
TABLE 3
Study 3 Means

<table>
<thead>
<tr>
<th>Brand Processing</th>
<th>Ad Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Patrick Stewart</td>
</tr>
<tr>
<td></td>
<td>Serious</td>
</tr>
<tr>
<td>Brand attitude</td>
<td>4.85</td>
</tr>
<tr>
<td>Power belief</td>
<td>5.48</td>
</tr>
<tr>
<td>User-friendly</td>
<td>3.40</td>
</tr>
<tr>
<td>Cell size</td>
<td>18</td>
</tr>
</tbody>
</table>

TABLE 4
Study 3 Hypothesis Testing

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Congruity Manipulated</th>
<th>Brand Attitude</th>
<th>Power Belief</th>
<th>User-Friendly Belief</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS. Serious (HC) vs Fun (LC)</td>
<td>Yes</td>
<td>H1 supported</td>
<td>H2 supported</td>
<td>—</td>
</tr>
<tr>
<td>BC Fun (HC) vs Serious (LC)</td>
<td>Yes</td>
<td>H1 supported</td>
<td>—</td>
<td>H2 directional</td>
</tr>
<tr>
<td>Serious PS (HC) vs BC (LC)</td>
<td>Yes</td>
<td>H1 supported</td>
<td>H2 supported</td>
<td>—</td>
</tr>
<tr>
<td>Fun BC (HC) vs PC (LC)</td>
<td>No</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Note: PS = Patrick Stewart, BC = Billy Crystal; HC = high congruity, LC = low congruity, — = not applicable

As expected (see Table 4), Patrick Stewart generated more favorable attitudes for the serious computer (high congruity) than for the fun computer (low congruity) under brand processing ($M$s 4.85 vs. 4.19), $F(1, 147) = 3.55, p < .06$, but not under ad processing, ($M$s 4.23 vs. 4.40), $F(1, 147) = 0.20$, nsd. In addition, Billy Crystal generated less favorable attitudes for the serious computer (low congruity) than the fun computer (high congruity) under brand processing ($M$s 3.13 vs. 3.99), $F(1, 147) = 5.98, p < .02$, but not under ad processing ($M$s 3.98 vs. 3.91), $F(1, 147) = .04$, nsd. Finally, the serious computer was liked more when endorsed by Patrick Stewart (high congruity) than by Billy Crystal (low congruity) under brand processing ($M$s 4.85 vs. 3.13), $F(1, 147) = 23.41, p < .0001$, but not under ad processing ($M$s 4.23 vs. 3.98), $F(1, 147) = .51$, nsd.

The comparison involving the fun computer showed no significant attitude differences for the endorsement by Patrick Stewart or Billy Crystal under brand
processing \((M_s \ 4.19 \ vs. \ 3.99), F(1, 147) = .34, \ nsd, \) as well as under ad processing \((M_s \ 4.40 \ vs. \ 3.91), F(1, 147) = 2.04, p < .16.\) These results are consistent with the null effects on the congruency index manipulation check.

**Brand beliefs.** We expected (H2) that issue-relevant elaboration would moderate the effect of congruity on relevant brand beliefs. We also expected power to be relevant for a serious computer and user-friendliness to be relevant for a fun computer.²

For the power dependent variable, ANOVA showed significant main effects of Endorser, \(F(1, 147) = 23.51, p < .0001,\) Image, \(F(1, 147) = 5.55, p < .02,\) and a significant three-way interaction, \(F(1, 147) = 10.32, p < .002.\) The brand was perceived as more powerful when Patrick Stewart rather than Billy Crystal was the endorser \((M_s \ 4.64 \ vs. \ 3.77)\) and when positioned as a serious rather than fun computer \((M_s \ 4.37 \ vs. \ 3.97).\)

We expected (H2) that perceptions of the brand’s power would follow the same pattern as Ab when the computer was positioned as serious. Thus, the relevant comparisons involved Patrick Stewart’s endorsement of the serious and fun computer; and the serious computer’s endorsement by Patrick Stewart or Billy Crystal. As expected, Patrick Stewart generated more favorable perceptions of power for the serious computer (high congruity) than fun computer (low congruity) under brand processing \((M_s \ 5.48 \ vs. \ 3.97), F(1, 147) = 16.17, p < .0001,\) but not under ad processing \((M_s \ 4.36 \ vs. \ 4.74), F(1, 147) = .96, \ nsd.\) In addition, the serious computer was perceived as more powerful when endorsed by Patrick Stewart (high congruity) than by Billy Crystal (low congruity) under brand processing \((M_s \ 5.48 \ vs. \ 3.63), F(1, 147) = 24.22, p < .0001,\) but not under ad processing \((M_s \ 4.36 \ vs. \ 4.16), F(1, 147) = .29, \ nsd.\) Both these results are consistent with our expectation (H2).³

For the *user-friendliness* dependent variable, there were significant main effects of image, \(F(1, 147) = 15.42, p < .0001,\) and goal, \(F(1, 147) = 4.66, p < .04,\) and no

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²In a pretest, participants were asked to rate how relevant the attributes “power” and “user-friendliness” were for each type of brand positioning. The measure was a 7-point scale ranging from 1 (not at all relevant) to 7 (very relevant). Power was rated as more relevant for the serious rather than fun computer \((M_s \ 6.47 \ vs. \ 4.65), F(1, 32) = 11.88, p < .002.\) User-friendliness was rated as more relevant for the fun than serious computer \((M_s \ 6.29 \ vs. \ 4.76), F(1, 32) = 7.89, p < .01.\)

³Because H2 refers to relevant brand beliefs, we did not have a prediction about irrelevant brand beliefs (i.e., power perceptions in the case of the fun computer). In fact, the results showed that power perceptions followed a different pattern from Ab in the contrasts involving the fun computer. Billy Crystal’s endorsement did not affect perceptions of the power of the serious (low congruity) or fun (high congruity) computer \((M_s \ Brand \ processing \ 3.63 \ vs. \ 3.57), F = 03, \ nsd, (M_s \ Ad \ processing \ 4.16 \ vs. \ 3.61), F = 2.51, p < .12.\) Patrick Stewart (high congruity) enhanced perceptions of the fun computer’s power relative to Billy Crystal (low congruity) under ad but not brand processing, \((M_s \ Brand \ processing \ 3.97 \ vs. \ 3.57), F = 1.22, p < .27, (M_s \ Ad \ processing \ 4.74 \ vs. \ 3.61), F = 9.81, p < .002.\)
significant interaction effects on beliefs about the user-friendliness of the PC. The PC was perceived as more user friendly when the image was fun than serious (Ms 4.64 vs. 3.82) and when the goal was brand than ad processing (Ms 4.47 vs. 4.01).

We expected (H2) that perceptions of user-friendliness would follow the same pattern as Ab when the computer was positioned as fun. The relevant comparison involved Billy Crystal's endorsement of the fun or serious computer. Although the results were directionally supportive, planned comparisons showed that Billy Crystal did not lead to significantly more favorable perceptions of user-friendliness of the fun (high congruity) computer than the serious computer (low congruity) under brand processing, (Ms 5.03 vs. 4.42), F(1, 147) = 2.09, p < .15, and ad processing (Ms 4.32 vs. 3.87), F = 1.26, p < .26. In the comparison involving the fun computer, the results were consistent with the pattern on attitudes: Beliefs on user friendliness were not significantly different between the Patrick Stewart and Billy Crystal endorsement (Ms Brand processing 4.94 vs. 4.94), F(1, 147) = .04, nsd. (Ms Ad processing 4.25 vs. 4.32), F(1, 147) = .02, nsd. Thus, we received partial support for user-friendliness.4

Discussion

Study 3 replicated and extended the findings of the first two studies in two ways. The within-brands comparison for a serious computer endorsed by Patrick Stewart (high congruity) or Billy Crystal (low congruity) replicated the design and results of Study 1. The within-celebrities comparisons (i.e., Patrick Stewart's endorsement of a serious vs. fun computer; Billy Crystal's endorsement of a fun vs. serious computer) were similar to the design and attitude results of Study 2. By crossing endorsing with brand image, we validated our earlier findings and eliminated potential confounds in the earlier studies. In addition, using different endorsers and a different product class from the earlier studies, Study 3 generalized our earlier findings.

In support of our conceptual model, brand attitudes and relevant beliefs were affected by source congruity when issue-relevant elaboration was high rather than low. In the three comparisons in which congruity was successfully manipulated, higher levels of congruity led to more favorable brand attitudes under high issue-

4 Although we did not have predictions about perceptions of user-friendliness of the serious computer, the results were the mirror reflection of power perceptions. Patrick Stewart generated less favorable perceptions of user-friendliness for the serious computer (high congruity) than fun computer (low congruity) under brand processing but not under ad processing (Ms Brand processing 3.40 vs. 4.94), F = 12.72, p < .001, (Ms Ad processing 3.51 vs. 4.25), F = 2.74, p < .10. In addition, the serious computer was perceived as less user-friendly when endorsed by Patrick Stewart (high congruity) than by Billy Crystal (low congruity) under brand processing but not under ad processing (Ms Brand processing 3.40 vs. 4.42), F = 5.55, p < .02, (Ms Ad processing 3.51 vs. 3.87), F = 67, nsd
relevant elaboration, but did not affect attitudes under low issue-relevant elaboration.

Beliefs about power followed the same pattern as attitudes when the belief was relevant to the brand image (i.e., for a serious computer). For instance, when high congruity was represented by Patrick Stewart's endorsement of a serious computer, beliefs about the brand's power followed the same pattern as attitudes. Similarly, when high congruity was represented by Billy Crystal's endorsement of a fun computer, beliefs about user-friendliness followed the pattern on attitude, although they failed to reach significance.

A potential shortcoming of Study 3 is the fact that the perceived congruity manipulation was successful only in three out of the four conditions. Contrary to pretest findings, Billy Crystal was not more congruent than Patrick Stewart with a fun computer. In fact, the two measures of perceived congruity did not agree: The congruity index showed no differences across the two endorsers, whereas the perceived congruity rating showed that Patrick Stewart was significantly more congruent than Billy Crystal with a fun computer, directly contradicting the pretest findings. To investigate this lack of agreement, we examined the thought protocols. From the comments in the thought protocols, it appears that participants may have perceived Patrick Stewart as more congruent than Billy Crystal with the product class of computers, whereas Billy Crystal was perceived as more congruent than Patrick Stewart with a fun positioning. This probably led to the equivocal results on the perceived congruity measures in this condition.

Given the results on the perceived congruity measure for the comparison involving the two endorsers of the fun computer, it is not surprising that there were no congruity effects on brand attitudes and beliefs. These null results are consistent with the lack of treatment effects on the congruity index.

Another issue raised by Study 3 is the weakness of the effects on the belief about the attribute user-friendliness. It is important to note that only one of the two comparisons that we presented might be considered a test of the Hs; as previously explained, given the absence of a successful congruity manipulation, the comparison involving the two endorsers of the fun computer is probably not informative. On the other comparison between Billy Crystal's endorsement of a fun or serious computer, the results were directionally supportive.

**GENERAL DISCUSSION**

The objective of this article was to examine conditions under which source congruity affected brand attitudes and beliefs. Source congruity was defined as the degree of match between accessible endorser associations and attributes associated with the brand. Across three studies that used different endorsers and manipulations of congruity, we found support for the notion that source congruity enhances
attitudes under conditions of high issue-relevant elaboration but not under conditions of low issue-relevant elaboration. Beliefs about relevant brand attributes followed the pattern of attitudes in Study 1 and Study 3. For instance, perceptions of the target brand's toughness in Study 1 and power in Study 3 were affected by source congruity under high issue-relevant elaboration but not under low elaboration. In Study 2, measurement differences may have accounted for the lack of correspondence between beliefs and attitudes under low issue-relevant elaboration (Fishbein & Ajzen, 1975; Fishbein & Middlestadt, 1995).

The manipulation checks for congruity showed that participants noticed source congruity under both levels of elaboration; however, congruity affected brand attitudes only when issue-relevant elaboration was high. This is consistent with our conceptual model that endorsers are more likely to provide information relevant to brand attitudes when issue-relevant elaboration is high rather than low.

Our definition of source congruity, based on the descriptive consistency between the attribute associations of the source and the endorsed brand, is conceptually similar to notions of congruity in the literatures on expectancy-congruent and expectancy-incongruent information (see Stangor & McMillan, 1992, for a review), message-context congruity (e.g., Kellaris, Cox, & Cox, 1993), and categorization (e.g., Fiske & Pavelchak, 1986). In these streams of research, congruity has been defined as the descriptive consistency between attributes and associated expectancies, contexts, or schemas. However, with the exception of Kellaris et al. (1993), in which the congruity is between background music and the message, the attributes typically used in these studies involve verbal descriptions; in our study, endorsers represented attributes. Moreover, the focus of most of these studies has been on whether (in)congruity affects memory for information or the nature of processing (category-based or piecemeal), rather than the effects of congruity on attitudes and beliefs. Finally, descriptive consistency is conceptually and operationally different from evaluative consistency, which refers to the consistency of the valence of information (e.g., Maheshwaran & Chaiken, 1991).

Contributions and Further Research

Our article makes contributions to the literature on source effects. First, our studies may help answer the general question of when sources may serve as persuasive arguments or peripheral cues. Most of the empirical literature on source variables considers the source as a peripheral cue rather than as a persuasive argument, because most source characteristics are typically not central to the true merits of the advertising message (Petty & Cacioppo, 1986). In our studies, endorsers were used as persuasive arguments when issue-relevant elaboration was high and when endorsers’ accessible associations matched or did not match the brand positioning. This suggests that sources may serve as persuasive arguments when consumers'
goals are to form brand attitudes and when the sources provide accessible, relevant brand attribute information.

In addition, we make a contribution to the literature on congruity effects. We have demonstrated that source congruity may have significant effects on brand attitudes even when the stimuli (i.e., celebrity endorsers) are highly valenced (our celebrities were all highly familiar and well-liked). Prior studies that examine stimulus congruity have only tended to look at somewhat neutrally valenced stimuli (e.g., attribute descriptions matched with product classes such as cameras, Sujan, 1985, and beverages, Meyers-Levy & Tybout, 1989). It is possible that our effects may be stronger when celebrity endorsers are more neutral (Mandler, 1982).

An area for further investigation concerns the strength of endorser associations. Our findings suggest that congruent endorsers are most likely to enhance brand attitudes when endorsers' associations are both strongly held and match the brand image; conversely, endorsers are likely to be perceived as least congruent when accessible associations contradict the brand image. An intermediate condition, not tested in this article, may be when the endorsers' accessible associations are weak or irrelevant to (i.e., neither confirm nor contradict) the brand image. We would expect that when attribute associations are weak, other endorser characteristics, such as likability or trustworthiness, may be more likely to affect brand attitudes even under conditions of high elaboration. Future research may examine how strength of association may act as a moderator of these effects.

A possible conditional boundary for the phenomenon has to do with the persistence of the effects found in our study over time. Recent research suggests that under low involvement (i.e., low issue-relevant elaboration), cues related to the persuasion setting may affect attitudes measured some time after ad exposure rather than immediately following ad exposure (Sengupta, Goodstein, & Boninger, 1997). This suggests that source congruity may impact brand attitudes even under low issue-relevant elaboration if these attitudes are measured some time after ad exposure. Because congruity is salient at the time of ad exposure, it may be more likely to be recalled later than other source characteristics.

Finally, caution must be exercised in generalizing these findings to conditions other than the ones tested. The robustness of the findings across different product classes, manipulations of congruity, endorsers, and brand images is promising. However, the testing was done under controlled conditions in a lab situation with hypothetical brands and student participants. Future research should investigate the generalizability of these findings to situations in which consumers are exposed to advertising in a natural setting.

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Accepted by Frank Kardes.