Athlete Endorser-Brand Relatedness and Perception of Source Credibility as in Schema Theory

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ABSTRACT

This research investigated the effect of athlete endorser-product relatedness on the audience perception of source credibility in athlete endorsement advertising. An experiment was conducted on a random sample of 60 university students who were instructed to rate their opinion on a scale. The participants were randomized into two groups—a sport-related experimental group and a nonsport-related control group. The results, coinciding with Bartlett’s schema theory, indicate endorser-product relatedness has a significant effect ($p < .05$) on source credibility in all dimensions—namely, attractiveness, trustworthiness, and expertise. Thus, advertising planners could apply these findings in deciding the choice of endorsers in their advertisement in such a way that they are related. Future researchers can study alternative product or celebrity endorser categories unrelated to sport.

Keywords: source credibility, sport advertising, celebrity endorsement

INTRODUCTION

Nowadays, consumers are surrounded by advertising messages coming from a variety of sources such as television, billboards, radio, newspapers, bills, and mobile phones, where advertisements clutter the available space.
Advertisement clutter has been identified as one of the critical problems for advertisers and marketers who have been trying to tackle this problem with all sorts of strategies, one of which is using celebrity endorsers in their advertisements.

A celebrity endorser refers to any individual who enjoys public recognition and who uses this recognition on behalf of a consumer good by appearing with it in an advertisement. Celebrity endorsers can include actors, athletes, business people, entertainers, military leaders, models, politicians, and singers. Today, the use of an athlete celebrity as an endorser is seen widely in all sorts of mass media. Nonetheless, it is believed celebrity athletes have been demanding increasingly large sums of money to lend their name and image to products; in some cases athletes demand much more for endorsements than their earnings from their sporting career. However, despite the substantial expense associated with celebrity spokespersons, firms continue to pay them large sums of money for their product endorsement.

A number of studies (for example Ohanian, 1990; Tripp, Jensen, & Carlson, 1994) support the use of endorsement advertising for various reasons. For instance, using celebrities as endorsers can be an effective strategy to gain and hold consumer attention, to enhance message recall, to increase believability of the advertisements, and to create positive word of mouth communications. Celebrities also can help improve brand attitude, increase purchase likelihood, and increase brand loyalty. Atkin and Block (1983) found that advertisements with celebrities are rated as more interesting, strong, and effective, that products in the advertisements are rated as more pleasant and enjoyable, and that the celebrities themselves are rated as more trustworthy, attractive, and competent.

However, research evidence also indicates that celebrities might not be effective for all brands in all situations, and companies have started to question whether paying celebrities to endorse their brands is the most effective use of company resources. In fact, only one out of five commercials containing celebrity endorsers meets the companies' strategic expectations (Miciak & Shanklin, 1994). Aside from their high cost, the value of celebrity endorsers may be diminished if they endorse multiple products, or if they endorse or use rival products (Tripp, Jensen, & Carlson, 1994). Celebrities also may prove ineffective when negative press about the celebrity occurs that tarnishes their image and subsequently damages the image of the associated brand.

The effectiveness of the specific celebrity may depend on the type of product being endorsed. Research on the "match-up hypothesis" has empirically addressed the issue of how endorser effectiveness varies based on the type of product being endorsed. More specifically, the match-up hypothesis explains how the congruence between the image of a spokesperson and the image of a brand results in more positive evaluations of the endorser, the brand, and the advertisement. This match could relate to the congruency of the brand with endorser attractiveness, expertise, or other relevant characteristics (Till & Busier, 2000).

While empirical research exists (for example, Ohanian, 1990; Tripp, Jensen, & Carlson, 1994), investigating the effects of the match-up effect in the context of attractiveness, the match-up hypothesis has received limited empirical attention for other match-up conditions, especially in the area of sport marketing and the impact of celebrity athlete endorsers. Athlete endorsers are of particular interest because they are used not only to endorse sport-related brands but also to endorsing nonsport-related brands (for example, Boyd & Shank, 2004; Yoon & Choi, 2005).

In accordance with the schema theory proposed by Bartlett in 1932, it might not be a good idea to use athletes as endorsers for nonsport-related products. This study investigated whether the mismatch between theory and practice is not a mismatch in the real world through an empirical exploration. Thus, the study centered on the
match-up effect in the context of athlete endorsers—given the frequency and high cost of using celebrity athletes as endorsers nowadays.

**LITERATURE REVIEW**

The characteristics of source credibility affect the effectiveness of an advertising message (Boyd & Shank, 2004) as evidenced from the large amount of research on celebrity endorsement. There is a strong link between source credibility and message persuasiveness. In other words, the more credible the source appears, the more persuasive the advertising message becomes.

The factors of source credibility have been described in different ways. Source expertise and trustworthiness have been advocated as critical dimensions of source credibility by a number of researchers. Among other dimensions are charisma, attractiveness, enthusiasm, objectivity, and dynamism. All in all, source credibility is truly a multidimensional construct.

In 1990, Ohanian wrote a seminal review on source credibility and therein explained the dimensions as well as the scale used to measure them. He conceptualized it as having three main dimensions—namely, expertise, trustworthiness, and attractiveness. In this study, he also emphasized that these three dimensions of source credibility independently contribute to the effectiveness of the source.

Source expertise means the extent to which a communicator is perceived to be a source of valid assertions. Research has shown that a source’s perceived expertise has a positive impact on attitude change and that topic-specific expertise is important. Moreover, expertise of the source is the one dimension of credibility that has been linked with intention to purchase products (Ohanian, 1990).

Source trustworthiness refers to the consumer’s confidence in the source for providing information in an objective and honest manner (Ohanian, 1990). The author states that trustworthiness of the celebrity is an important construct in persuasion and attitude-change research. However, in a later study (Tripp, Jensen & Carlson, 1994), trustworthiness did not have a significant impact on purchase intentions.

Source attractiveness is a more difficult characteristic to conceptualize. Most researchers describe attractiveness in terms of physical appearance and facial attractiveness. Other researchers believe that attractiveness is a more multidimensional construct. For example, attractiveness may be described in terms of the perceived similarity of the source to the receiver of the message, familiarity, and whether the source is likeable or admired. Attractive sources are able to enhance the target audience’s perception of the advertisement and to increase the purchase intentions and purchase behavior.

Research shows that the multidimensional image of the celebrity or the cultural meaning embodied by the celebrity is transferred to the product, and then to the consumer, via advertisements. For example, Walker, Langmeyer, and Langmeyer (1992) measured the consumer images of three different products when they were associated with two celebrities with extremely different images. They found that the unique images of the celebrity endorsers were transferred to the various products when they were paired with that celebrity. Celebrity images can also be transferred to organizations. Perceptions of an organization become more positive after being linked with a celebrity whom consumers like. Similarly, perceptions of the organization become more negative when the celebrity is disliked.

Certain specific characteristics of the celebrity endorser affect consumer attitudes and behavior. One widely studied characteristic in the literature on endorser effectiveness is the credibility of the endorser. Several studies, for example, Till and Busier (2000), Walker, Langmeyer, and Langmeyer (1992), and Yoon and Choi (2005), have identified source expertise and trustworthiness
as key dimensions of credibility (Ohanian 1990). These components of credibility can work in conjunction or independently to contribute to the effectiveness of an endorser. Endorser credibility is important because when endorser credibility is high, consumers are more likely to accept arguments presented in the advertisement, but tend to reject arguments in advertisements with a source low in credibility.

The match-up hypothesis provides a theoretical framework that helps link the relationship between the endorser-brand fit and endorser credibility and explains how the image of a spokesperson, in conjunction with the image of a brand, affects consumers’ brand and advertisement evaluations. The match-up hypothesis has its roots in the work of Mowen, Brown, and Schulman (1979) who used balance theory to describe the relationships between an endorser, a brand, and a target audience and asserts that an endorser would be most effective when there is a close relationship between all three elements.

According to the match-up hypothesis, an endorser will not have a favorable effect on consumer attitudes and behavior unless the image of the endorser "matches up" with the image of the brand (Kamins, 1990). For example, an attractive spokesperson would be more effective than an unattractive model in a cosmetics advertisement because cosmetics are related to beauty and an attractive endorser is consistent with this image. However, the attractive model would not be more effective than the unattractive model in an advertisement for computers because computers are not related to beauty.

The attractive celebrity is effective because the match-up between the beautiful celebrity and the beauty-enhancing brand results in high credibility—but only for brands related to beauty. Much of the early match-up research focused on the physical characteristics of the spokesperson and especially on physical attractiveness. For example, Kahle and Homer (1985) examined the impact of attractive versus unattractive celebrities in razor print ads. They found that attractive celebrities elicited higher purchase intent and more positive attitudes toward the brands than unattractive celebrities. They argued, but did not verify, that razors are associated with attractiveness, and that the congruency of the brand image (as one that increases attractiveness) with the attractive endorser led to the more positive evaluations.

Kamins (1990) conducted an experiment and argued the degree to which the brand was related to attractiveness and a significant relationship was found between celebrity attractiveness and product type, whereby the advertisement with the attractive celebrity and the attractiveness-related brand caused consumers to evaluate endorser credibility to be higher and the advertisement to be more favorable. The attractiveness of the celebrities did not have any impact in the advertisements with the brands that were not related to attractiveness. In contrast, Till and Busier (2000) found some supporting evidence of an attractiveness effect but did not find a match-up effect.

Athletes provide an excellent opportunity to examine match-up effects. From a practical standpoint, athletes are widely used as brand endorsers and are considered an obvious match with brands that are related to athletic activity or that are related to fitness. Athletes presumably have high expertise in athletics, providing them with credibility, and thus they may be more effective as endorsers for sport related brands.

Past research findings also suggest that a perceived match-up between a less well-known (or even unknown) athlete and the brand is sufficient to elicit the more positive response. For example, although not tested in the context of the match-up hypothesis, Yoon and Choi (2005) found that participants preferred and reported higher purchase intentions for advertisements for sports brands that contained both the product and an athlete, even though the athletes were not famous. Similarly, Boyd and Shank (2004) found higher credibility for
less famous tri-athletes endorsing a sport-related product (cross-trainer shoes) than for more famous Olympic stars endorsing a nonsport product (milk). Although they found that the match-up between the endorser and the product resulted in higher perceived expertise, they used different athletes (tri-athletes versus Olympic stars) for their different product categories (cross-trainer shoes versus milk) and thus confounded the results. They also did not examine the impact of this match-up on evaluations of the advertisement or the product. Even an anonymous model purported to be an athlete might elicit match-up effects. In a study using fictional candy bars and energy bars, Till and Busier (2000) used an anonymous model and presented him as either an actor or an athlete for both products. They found a match-up effect of a more positive brand attitude for the athlete compared to the actor for the energy bar. They suggested that these results were caused by increased ratings of expertise of the athlete over the actor. Similarly, Lynch and Schüler (1994) found that the more muscular the spokesperson was, the more knowledgeable he was perceived to be, but only in advertisements for products that were related to muscularity.

Taken together, the attractiveness match-up research coupled with the limited sport-related research suggests that a celebrity athlete should be most effective when endorsing a sport-related brand. In particular, the match-up between the image of the celebrity and the image of the brand should contribute to more positive perceptions of the endorser, attitudes toward the brand and the advertisement, and increased purchase behavior.

A schema is the rule all human beings have and use to interpret the world. New information is processed according to how it fits into these rules. A collection of schemas can be used not only to interpret but also to predict situations occurring in the environment. Information that does not fit into these schemas may not be comprehended at all, or may not be comprehended correctly.

Schema theory can be used to explain the anticipated attitudes and behavior that will result when a celebrity athlete matches up or doesn't match up with the brand. According to the two-category model of Fiske (1982), judgments about the endorser and brand are influenced by the endorser-brand match. According to this model, a two-stage process (categorization and evaluation) affects judgments about the brands. When the image of the endorser in the advertisement matches with the brand category, the effect associated with the endorser is immediately applied to the brand category. When a mismatch occurs between the endorser and the brand and is thus inconsistent with the stimulus individual, increased thinking about the inconsistency results. Thus, an advertisement with an endorser whose image is consistent with consumer expectations of the brand will induce an immediate effect. However, if the endorser's image is inconsistent with expectations, increased elaboration will result over the inconsistency.

In the context of celebrity endorsers and sport marketing, when an athlete endorses a sport-related brand (versus a nonsport brand) the advertisement should make a difference when the same model is not identified as an athlete (or is not an athlete) because the brand and endorser images are consistent with one another according to schema theory. This leads to the following hypotheses:

H1: When an athlete endorser is used for a sport-related product, source credibility is perceived higher.

H2: When an athlete endorser is used for a sport-related product, consumers perceive the source as more attractive.

H3: When an athlete endorser is used for a sport-related product, consumers perceive the source as more trustworthy.

H4: When an athlete endorser is used for a sport-related product, consumers perceive the source as having more expertise than for a nonsport-related product.
METHOD

The study was experimental in design with a quantitative approach. The total sample composed of 60 participants recruited from undergraduate students in a public university. The sample consisted of 33 females (55%) and 27 males (45%) with a mean age of 19.8 years (ranging from 18 to 22 years of age). All the participants were involved in sporting activities on a regular basis and were familiar with the product or brand used in this study. Thus, the sample was considered satisfactory for the purpose of this study.

In order to explore the role of the match-up effect in the context of celebrity athletes as product endorsers, two poster advertisements were made and used—one featured an athlete with a sport related product and the other used the same athlete for a nonsport related product. To ensure the advertisements represented different endorsement categories, the researcher conducted a pre-test in which 30 participants randomly selected from the same population as the sample were asked to rate those two advertisements on a five-point semantic differential scale. The scale was anchored with nonsport brands at one end, and with sport brands at the other. The results showed that the respondents rated the nonsport-related product as low (\(M = 0.39, SD = 1.14\)) and the sport-related product as high (\(M = 3.45, SD = 1.91\)) and, most importantly, that the difference was significant (\(t(28) = 8.635, p < .001\)).

To ensure that the effects of one or more of the extraneous variables or the threats to internal validity have been controlled, the researcher employed a randomized between-subjects design that randomly split the 60 participants into two groups or conditions: a sport product group and a nonsport product group. In the former group, the participants viewed an advertisement with a well-known athlete endorsing a sport-related brand, while the participants in the latter group saw the same athlete endorsing a nonsport-related brand.

After viewing the advertisement, all the participants responded to a self-administered questionnaire to items measuring the dependent variables and to questions about their demographic characteristics. Perceived attractiveness was measured using a five-item, five-point scale developed herein. As for perceived trustworthiness and perceived expertise, measures were adopted from the five-item, five-point scales developed and tested by Ohanian (1990). The validity of the items in the instrument for all three measures was confirmed as positive (or over .5) by a panel of product marketing practitioners and academics. Also, its internal reliability was also determined by Cronbach’s alpha coefficients which yielded the results as follows: Perceived attractiveness (.69), perceived trustworthiness (.85) and perceived expertise (.81). The results were deemed sufficiently high based on the standard of .70 recommended by Nunnally and Bernstein (1994) for basic research.

The research design was intended to provide the information about the perceptions contributed by product-endorser relatedness and unrelatedness. To test the differences among means, a series of multivariate analysis of variance (ANOVA) was performed. When significant differences were found between group means, univariate ANOVA tests were performed to further define the differences.

There were two levels of the single independent variable—namely, product-endorser relatedness and unrelatedness. There were three dependent variables—namely, perceived attractiveness, perceived trustworthiness and perceived expertise.

RESULTS

A multivariate analysis of variance was conducted to assess if there were differences between the group that viewed an advertisement featuring a sport-related endorser and the other group that viewed one with a nonsport-related endorser on a linear combination of three subscales, namely perceived attractiveness, perceived
trustworthiness, and perceived expertise. To determine the appropriateness of the statistical method used, the assumption of independence of observations and homogeneity of variance/covariance were assessed. Bivariate scatterplots were also checked for multivariate normality. Table 1 demonstrates the mean percentage and standard deviation for product types by source credibility.

The three dependent variables are significantly related as they all measure aspects of source credibility. However, since no correlation is too high or too low, none of them was made a composite variable or eliminated. Table 2 depicts the correlation coefficients for relations among source credibility dimensions.

A multivariate test was conducted across the two products to test if the product relatedness has an effect on source credibility. The results of the multivariate ANOVA indicated that there was a significant main effect of endorser-product relatedness (Hotelling’s $T^2 = .543$, $F(3, 55) = 6.53, p < .05$). Follow-up multivariate comparisons showed that the sport group was significantly different from the nonsport group ($F(1,58) = 8.31, p < .05$). Although significant, the effect size of this relationship was weak as indicated by partial $\eta^2 = .24$.

Univariate tests were conducted to further explore the impact of an athlete endorser for a sport-related brand versus a nonsport-related brand. The results of these analyses and the mean values of the dependent variables for each of the experimental conditions are shown in Table 1. Univariate between-subjects tests show endorser-product relatedness has a significant effect on source attractiveness ($F(1,58) = 6.41, p = .043, \eta^2 = .14$) source trustworthiness ($F(1,58) = 4.09, p = .044, \eta^2 = .01$), and source expertise ($F(1,58) = 2.45, p = .032, \eta^2 = .06$). Thus, it can be concluded that the congruence between product types and the endorser’s athlete status in an advertisement is statistically significant. Table 3 reports the results of Univariate analyses of variance for source credibility dimensions.

In summary, all of the research hypotheses were supported as evidenced in the research findings. The results of the multivariate ANOVA indicated that the effect of endorser-product relatedness on source credibility was statistically significant.

**DISCUSSION**

This study contradicted Kamins (1990) who suggested matching the athlete with a sport-related

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**Table 1** Mean scores and standard deviations for measures of source credibility

<table>
<thead>
<tr>
<th>Group</th>
<th>Attractiveness</th>
<th>Trustworthiness</th>
<th>Expertise</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
</tr>
<tr>
<td>Sport</td>
<td>4.01</td>
<td>1.09</td>
<td>4.21</td>
</tr>
<tr>
<td>Nonsport</td>
<td>3.92</td>
<td>1.21</td>
<td>3.43</td>
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</table>

**Table 2** Correlation coefficients for relations between three measures of source credibility

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perceived attractiveness</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Perceived trustworthiness</td>
<td>.57*</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>3. Perceived expertise</td>
<td>.49*</td>
<td>.33*</td>
<td>---</td>
</tr>
</tbody>
</table>

*p < .05.*
or unrelated brand did not make any difference to evaluations of the brand and advertisement. A contrast was found in this study which suggests that source credibility in all three dimensions was influenced by this fit between the brand and the celebrity endorser.

This research also contributes to the literature by identifying the underlying mechanism driving the match-up effects. The lack of a match between the image of the brand and the image of the endorser resulted in a less positive effect on source credibility. These results can be explained in the context of the schema theory established by Bartlett in 1932. This study confirms the schema theory such that when a match is present, consumers are likely to find a match in their existing schemas. Therefore, consumers are more likely to accept the advertisement and its message. When there is no match present, consumers will engage in more elaboration about the advertisement in an attempt to resolve perceived inconsistencies with existing schemas. These thoughts will include negative reactions to the observed inconsistency resulting in more negative attitudes about the advertisement and the endorser (Fiske, 1982).

There are some avenues available for future studies. Future researchers should compare the impact of advertisements that include celebrity endorsers to those that include noncelebrity endorsers in them. Another interesting topic for future research would be how endorser-product relatedness impacts purchase behavior, especially in advertisements featuring sport-related products or brand.

One limitation in this study was the recruiting of samples that might hamper the generalization of the findings. The sample was sourced from college students with similar demographic characteristics; therefore, any inference to other populations has to be made with caution.

A critical issue for marketers paying famous celebrities to be endorsers for their brands revolves around which celebrity, or type of celebrity, would maximize the advertising effectiveness for their particular brand. The match-up hypothesis by Till and Busier (2000) suggests that an athlete would be ideally suited as an endorser for a brand related to athletics, but not for a nonsport brand.

From a managerial standpoint, this raises the issue of whether it is worthwhile hiring a highly accomplished athlete to endorse a product at all because, considering the extremely small effect sizes ($\eta$) obtained, the strength of the relationship between the product and source is significant but minimal. Thus, advertising using lesser-known endorsers might be an option. Might it be more sensible to focus on the brand than the endorser? Does the advertiser really gain more benefits from high-profile endorser advertising than from lower-profile endorser exposure? Or, is it the reverse?

<table>
<thead>
<tr>
<th>Source Credibility</th>
<th>Product Type</th>
<th>F</th>
<th>p</th>
<th>$\eta^2$</th>
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<tr>
<td>Attractiveness</td>
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<td></td>
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REFERENCES


