

How Event Sponsors Are Really Identified: A (Baseball) Field Analysis

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Event sponsors often do not receive proper credit for their efforts. This issue was examined in a field study involving over 300 baseball fans attending minor league games during the summer season. Signal detection analyses reveal that, even among such sports fans, the ability to correctly discriminate actual official sponsors of the home team from matched foils, although above chance, was rather poor. Consistent with recent laboratory findings, sponsor identification responses were further found to be heavily influenced by the mere plausibility of the brand as a potential sponsor. This plausibility effect was equally pronounced for actual sponsors and for foils. The phenomenon seems to be driven by a reliance on plausibility-based inferences that was widespread across respondents (as opposed to limited to a few). These plausibility-based inferences, whether correct or incorrect, can have as much influence on attributions of sponsorship as actual exposure to genuine sponsorship information. Implications for potential sponsors and properties are discussed.

EVENT SPONSORSHIP CONTINUES to attract ever-increasing levels of interest (and money) as a form of marketing and corporate communication. For instance, companies and brands such as Adidas, Fujifilm, and Toshiba recent spent tens of millions of dollars for the rights to be official sponsors of the 2006 FIFA World Soccer Cup in Germany. Accurate identification of sponsors of an event, team, venue, or cause is critical to the success of sponsorship communication. However, research continues to show that even frequent viewers and attendees confuse or forget the primary sponsors of major events. For example, half of the British fans who watched or attended, on average, 13 matches of the Euro 2000 soccer competition could not recall *any* sponsors. In aided recall, these fans in fact identified brands such as Nike and Carling who were not sponsors more frequently than actual sponsors MasterCard, JVC, and Fuji. Similarly, four years later, respondents asked to name the official sponsors of the Euro 2004 soccer cup were almost as likely to mistakenly identify Nike

as they were to correctly identify Adidas, the real sponsor. Numerous field studies have uncovered similarly disappointing rates of sponsor identification with other events (e.g., Grohs, Wagner, and Vsetecka, 2004; Pham, 1992; Sandler and Shani, 1989). If much of the audience is unable to correctly identify the sponsor of an event or, worse, identify companies who did not pay the sponsorship fees (including competitors!), the value of the sponsorship becomes highly questionable. This affects not only the sponsors themselves but also the various properties that seek sponsorship fees. The purpose of this article is to provide a better understanding of the psychological processes underlying the correct or incorrect identification of property sponsors in the marketplace.

The finding that in the real world commercial sponsors are often poorly identified has prompted two streams of research. The first focuses on ways in which sponsors may be able to increase their chances of being properly identified (e.g., Lardinois and Quester, 2001; Meenaghan, 1994; Quester

and Thompson, 2001). Some studies suggest, for instance, that leveraging sponsorships via television advertising sometimes enhances the effects of sponsorship on consumer awareness and attitude (e.g., Quester and Thompson, 2001). The second stream of research has focused on understanding the psychological processes through which sponsors are identified or not identified (Johar and Pham, 1999; Pham and Johar, 1997, 2001). Recent experimental evidence suggests that sponsor identification is not driven solely by the strength of the sponsor-event associations in memory, as has been generally assumed in the industry. This is because—at least within a laboratory setting—consumers often seem to infer the sponsor's identity through some constructive processes (Johar and Pham, 1999). The goal of this article is to examine the processes underlying sponsor identification in a field experiment.

We start by justifying the premise of this article, namely that sponsor identification is a crucial issue. This premise derives from three sources—past literature on sponsorship objectives, measures of sponsorship effectiveness, and the established relationship between identification and brand equity. Past literature on sponsorship has accepted that “unless the association is made between the sponsor and the event or activity sponsored, none of the objectives reported in the literature can be achieved” (Quester, 1997b, p. 102). Based on this assumption, a number of researchers have used either recall or recognition measures to examine whether the brand is associated with the sponsored event (Cunneen and Hannen, 1993; d’Astous and Bitz, 1995; Pham, 1992; Quester, 1997a, 1997b; Shilbury and Beriman, 1996; Tripodi, Hirons, Bednall, and Sutherland, 2003). Of course, consumers are not expected to spontaneously ask themselves whether a particular brand is

the sponsor of an event (the question typically asked by these surveys). Rather, the assumption is that exposure to the brand may trigger a number of associations including the brand's sponsorship activities (if the association is well established). These associations would then lead to various positive consequences for the sponsor in terms of brand equity and possibly choice. The purpose of sponsor identification surveys is therefore to test how well the associations between the brands and the sponsored properties have been established in memory. Past literature has also assumed that, if a strong association can be created between a brand and a property, consumers who are strong supporters of the property may seek out brands that they perceive as sponsors (Quester and Farrelly, 1998). A final reason that validates the use of the event-brand association measure in the literature is that many companies engage in sponsorship with the specific objective of increasing awareness of the company and its products (Quester, 1997a; Quester and Thompson, 2001). Increasing the association between the sponsored property and the brand provides one more link to brand name retrieval and is, hence, likely to increase overall brand awareness.

A second justification for research on brand-property associations is the fact that companies as well as the popular press use these measures to evaluate sponsorship effectiveness. High levels of association are routinely accepted as indicative of successful sponsorship. For example, Quester (1997c) reports that an insurance firm heavily involved in sponsorship measured effectiveness by tracking over time the spontaneous awareness of the firm's sponsorship activities. If, as we shall discuss, consumers use educated guesses to name the property associated with a brand, then part of the accuracy in sponsor identification may arise from sources other

than effective sponsorship. For example, past research has found that prominent brands that seem related to the property (e.g., Nike and soccer) are more likely to be identified as sponsors because consumers often use some plausibility heuristic in identifying sponsors (Johar and Pham, 1999; Quester, 1997a, 1997b, 1997c). Related and prominent sponsors may bask in the glow of “accurate” identification as indicated by their effectiveness surveys without realizing that sponsorship credit would have accrued to them even in the absence of actual sponsorship!

Finally and significantly, if consumers are unable to identify the sponsorship activities of a firm, they are unlikely to view the firm in terms of the desired image that is driving the sponsorship decision in the first place. A number of studies have documented that the proper identification of the sponsor with the property influence consumers attitudes toward the sponsor's brand (e.g., Gwinner and Swanson, 2003; Pham and Johar, 2001; Rifon, Choi, Trimble, and Li, 2004; Roy and Cornwell, 2004). For example, Quester (1997c) reports that the insurance company tracking study described above uncovered low awareness of activities sponsored by the firm, implying that the firm was not meeting its image objectives despite considerable expenditure. A more direct assessment of the relationship between brand-sponsor association and image enhancement comes from Quester and Thompson (2001). These researchers found that of the three companies that sponsored the 1998 Adelaide Festival of the Arts, only one company benefited in terms of image enhancement and intention of consumers to contact the company for more information. Significantly, this was also the only company to create high degrees of awareness of its sponsorship effort. Laboratory research by Pham and Johar (2001) also found that perceived sponsorship of sporting events

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is related to increases in brand image ratings. While it is possible that sponsorship may sometimes work without creating associations but by simply creating a halo of familiarity and liking, it seems to be the case that most companies want to be credited for their sponsorship activities and expect an image payoff from such associations (Quester and Thompson, 2001). The general belief appears to be that desired benefits of improved brand liking and equity are unlikely to ensue in the absence of accurate sponsor identification. Hence, in this article, we shall focus on brand-sponsor associations as a key measure of sponsorship effectiveness. We aim to replicate and extend recent laboratory-based findings regarding the processes underlying sponsor identification in a field experiment. Below, we discuss the theoretical basis for past findings and discuss why these results need further validation in a field setting.

PRIOR RESEARCH ON PROCESSES OF SPONSOR IDENTIFICATION

Based on a series of laboratory experiments, Johar and Pham (1999) recently suggested that three types of processes may in fact be involved when consumers are asked to identify the sponsor of an event. First, consumers may retrieve the sponsor directly from memory, which is more likely if there is a strong association between the event and the sponsor in

memory. This purely recollective process is the one generally assumed in academic and commercial research on sponsorship effectiveness. Second, consumers may engage in some quasi-random guessing, which is more likely to occur when motivation to be accurate is low (Pham and Johar, 1997). The first type of process would obviously increase the accuracy of sponsor identification, and the latter would generally decrease it, introducing a large amount of random error. A third type of process identified by Johar and Pham (1999) is a more effortful process of “educated guessing” that relies on the perceived *plausibility* that a given brand or company is a sponsor of a given property (event, venue, team, etc.). These educated guesses are more likely when memory fails and when there is sufficient motivation to be accurate (Pham and Johar, 1997, 2001). This third type of process introduces *systematic* (rather than random) error in the responses and may increase or decrease the observed rate of “correct” identification, depending on the plausibility relation between the sponsor and the property.

Two heuristics appear to be often invoked in these educated guesses (Johar and Pham, 1999; Pham and Johar, 2001). The first is called *relatedness*. Relatedness refers to whether there is a semantic association between the property whose sponsor is to be identified and the brand

or company that is a potential candidate (and may or may not be the actual sponsor). For example, in consumers’ minds Nike may be related to sporting events but not to performing arts and museums. Everything else being equal, consumers seem to give disproportionate credit to brands that appear related to the property compared to brands that appear unrelated (Johar and Pham, 1999; Quester and Farrelly, 1998). The second heuristic is called *prominence*. Market prominence refers to consumers’ perceptions of the reputation of the company or brand due to awareness, market share, visibility, and share-of-voice (Pham and Johar, 2001). All else being equal, prominent companies or brands seem more likely to be identified as sponsors, whether they are sponsors or not, than less prominent brands (Johar and Pham, 1999; Pham and Johar, 2001; Quester, 1997c). The present study investigates whether these findings, which were observed mostly in the lab, hold in a real world field setting.

OBJECTIVES OF THE STUDY

With few exceptions (e.g., Quester and Thompson, 2001), previous studies on sponsor identification have relied on highly controlled but somewhat artificial laboratory experiments. These lab experiments may possibly exaggerate both people’s inability to identify sponsors correctly and their reliance on heuristic processes of identification because of the nature of the stimuli and the setting. In these experiments, the stimuli were constructed in such a way that the plausibility of the various brands to be identified as sponsors versus nonsponsors (e.g., their relatedness and prominence) was very salient. However, in the field, the plausibility of a brand may not be as salient a cue in real sponsor recognition tasks. Also, the magnitude of clutter and actual number of sponsors in a field setting typically

exceeds that tested in laboratory studies. This factor should reduce the level of identification accuracy observed in the field compared to the lab. On the other hand, in a real world setting consumers generally have multiple opportunities to learn the sponsor-event associations, both across media and over time. In previous lab studies, these opportunities were limited. This factor would enhance the level of identification accuracy observed in the field compared to the lab. Still, we predict generally low levels of sponsor identification accuracy, in line with previous field studies (e.g., Beatty, 1998; Sandler and Shani, 1989).

Theoretically, if encoding conditions allow a strong association to be built between the sponsor and the property, a direct retrieval process should be more likely used in sponsor identification than plausibility-based inferences. This is because direct retrieval of well-encoded associations should require minimal effort and thus "win the race" against processes such as plausibility-based inferences that require some effort. In addition, retrieval of original memory traces is generally perceived to provide a more accurate response than constructive inferences (Pham and Johar, 1997). Providing field-level evidence of this proposition would provide an ecologically valid test of Pham and Johar's (1997) hypothesis that direct recollection is the default process of identification and use of heuristics occurs only when recall fails. Direct retrieval is more likely to result in an accurate identification response when the amount of exposure that the consumer has received to event-sponsor association increases. Hence, we expect that, as the number of exposures to the event (hence to its associations with the sponsors) increases, people will be more accurate in sponsor identification. Controlling for exposure, identification accuracy should also be positively

correlated with the person's level of involvement with the event (e.g., Lardinoit and Derbaix, 2001) because involvement generally heightens attention to the environment and related stimuli (e.g., Mano and Oliver, 1993). However, it is also possible that the relationship is curvilinear. Pham (1992) observed that, while moderate involvement increases attention to and memory for sponsorship information, very high involvement may decrease it. Presumably this is because sponsorship information is often only peripheral to the audience's true interest (the event itself). As a result, heightened attention to the event may sometimes come at the expense of the more peripheral sponsorship information, unless the sponsorship information is in fact central to the audience (Pham, 1992).

In addition to documenting the differences in accuracy in the laboratory versus the field, this research seeks to extend prior research by moving beyond aggregate level analyses. A major limitation of previous experimental work on the heuristics of sponsor identification is that the analyses and inferences were done primarily at the aggregate level (by comparing mean accuracy across between-subjects experimental conditions). Aggregate level analyses may sometimes be misleading, as the average response of widely different individuals may be a poor descriptor of any one individual's response (e.g., Hutchinson, Kamakura, and Lynch, 2000). This issue becomes critical in a field setting, as real world audiences of sponsored properties are likely to be much more heterogeneous than the student population typically examined in experimental work. The response aggregation of earlier experimental work leaves unanswered the question of how widespread the use of mere plausibility (e.g., relatedness or prominence) is among real world consumers. Are these heuristics

(identified based on response averages) used to some extent by a large number of individuals, or instead used to a greater extent by a more limited subset of individuals? We also consider the use of combination strategies, such as retrieving the sponsor and then testing this somewhat vague recollection using plausibility as a cue (i.e., cross-checking for validity). This hypothesis-testing approach to sponsor identification has been proposed in the literature (Johar and Pham, 1999) but has not received much empirical attention.

METHOD

Setting, respondents, and procedure

This field study involved the Redbirds, a Minor League professional baseball team in Memphis, Tennessee. A distinctive feature of the study is that the stadium (where the sponsors were advertised) was new. It was the first season in which the team was playing in the stadium. The study was conducted inside the stadium before games played on four different Fridays and Saturdays in July and August of that first season. A total of 399 individuals who had come to attend these games were recruited using the following procedure. From the time the gates opened until the opening pitch, people entering the stadium were approached at approximately 1-minute intervals and asked if they were willing to participate in a "game" organized by the home team. They were informed that, in exchange for their participation, they would receive a small gift and a chance to win in a lottery. Those who agreed (over 90 percent of those approached) were directed to a booth near the gate, out of view of sponsor signage.

Respondents were told that the game involved identifying the sponsors of the home team. They were first asked to provide demographic information. As a measure of previous exposure to event-sponsor associations, respondents were then asked

to report the number of games they had attended thus far in the season. They also reported their involvement with the team on five 7-point, agree-disagree items (e.g., "I think about the [home team] all the time"; "I watch or read about the [home team] whenever I can"; Fisher and Wakefield, 1998; $\alpha = .92$).

Respondents were then presented with the names of 90 local and national brands and asked to indicate, for each one of them, whether it was a sponsor of the home team. Sponsors were defined as those brands or companies whose names appear on scorecards, signage, game programs, and broadcast media. Half of the brands presented were actual sponsors of the team; the other half were not. On average, respondents completed the study in 4 minutes. Respondents' sponsor identification responses and the processes underlying these responses were then analyzed.

Stimuli and pretest

The stimuli brands consisted of all 45 actual sponsors of the home team (whose brand names and logos appeared on signage and scoreboards around the stadium) and 45 foil brands matched with the actual sponsor brands as follows. The 45 actual sponsors consisted of a broad range of national (e.g., Wendy's, Budweiser) and regional brands (e.g., Seesel's Grocery Store, Memphis Light Gas and Water) that varied substantially in terms of their ostensible connections to sports, baseball, and the local team. Based on several rounds of discussions among the authors and preliminary pretests with students from the same geographical areas, we generated a list of 45 foil brands that approximately matched the list of actual sponsors both in terms of the brands' prominence (e.g., Nike versus Fogdog.com Sporting Goods) and their related-

ness to sports, baseball, and the local team (e.g., Louisville Slugger versus Land's End).

The combined list of 90 brands (45 actual sponsors and 45 foils) was then submitted to a more formal pretest among 125 respondents from the same geographical area. In this pretest, each brand was evaluated along three dimensions posited to influence its plausibility as a sponsor of the team: (a) the brand's perceived prominence, (b) its perceived relatedness to the baseball team, and (c) its perceived involvement in sponsorship in general. The perceived prominence of the brand was measured using two 7-point items anchored at 1 = "Not known at all" to 7 = "Extremely well known" and 1 = "Extremely small" to 7 = "Extremely large." Responses to these items were highly correlated ($r = .98$) and thus averaged across items. Perceived relatedness was measured by the following question: "Given the product or services that they offer and their image, would it make sense for the following brands and companies to sponsor the Redbirds?" Responses were collected on a 7-point scale where 1 = "Not at all" and 7 = "Very much." Perceived involvement in sponsorship in general was measured by the following question: "In the past, how often have you seen this brand or company associated with any type of sponsorship?" Responses were collected on a 7-point scale where 1 = "Never" and 7 = "Very often." To avoid fatigue effects, the 90 brands were randomly divided into two sets rated by two different groups of respondents. Within each group of respondents, one subgroup evaluated the brands in terms of their perceived prominence, and another evaluated the brands in terms of their perceived relatedness and general involvement in sponsorship.

Analyses of the pretest responses revealed that, across brands, the three dimensions of plausibility as a sponsor—

prominence, relatedness, and general involvement with sponsorship—were highly correlated ($\alpha = .91$) and loaded onto a single factor (accounting for 85 percent of the variance). This high intercorrelation was especially pronounced for the actual sponsors ($\alpha = .97$; single factor variance = 92 percent), but was also true for the foil brands ($\alpha = .85$; single factor variance = 77 percent). Therefore, a single index of each brand's plausibility as a sponsor was computed by taking its average score on perceived prominence, relatedness, and general involvement. [Our original intention was to examine each dimension of plausibility of as a sponsor (i.e., prominence, relatedness, general involvement in sponsorship) separately. Unfortunately, this high intercorrelation, beyond our control for the actual sponsor brands, made this more fine-grained analysis infeasible.]

On average, the foil brands had a level of plausibility ($M = 4.35$) comparable to that of the actual sponsor brands ($M = 3.97$; $F(1, 88) = 1.79, p > .18$). The two sets of brands also had comparable levels of variability in terms of judged plausibility ($\text{std}_{\text{actual sponsors}} = 1.44$; $\text{std}_{\text{foils}} = 1.23$). Therefore, the two sets of brands can be considered approximately matched in terms of plausibility as sponsors.

RESULTS

Preliminary analyses

A number of respondents failed to complete a substantial part of the test, raising issues about the quality of their data. We thus restricted our analyses to those respondents who answered at least 70 of the 90 identification questions, resulting in 316 effective respondents (79.2 percent of the total sample). The results about to be described are therefore likely to reflect an *upper bound* with respect to people's true ability to identify sponsors correctly. These respondents were 56 percent male,

with a median reported age of 37 and a median household income of \$65,000–\$80,000. Most respondents (84 percent) declared having at least some college-level education, with 52 percent declaring a bachelor's degree or higher. The median number of games attended thus far in the season was four. The average self-reported involvement with the team was moderately high ($M = 4.65$ on a 7-point scale).

The results are organized in three sections. The first section provides a signal detection analysis of respondents' sponsor identification accuracy and its predictors. The second section presents an aggregate, brand-level analysis of the influence of mere plausibility on the likelihood of identification. The third section presents an individual-level analysis of respondents' reliance on plausibility as a heuristic of sponsor identification.

Identification accuracy

The respondents' ability to identify the actual sponsors of the team can be exam-

ined from a signal-detection perspective (Green and Swets, 1996). Each respondent was asked to provide 90 "sponsor/not a sponsor" responses, half of which involving actual sponsoring brands, the other half involving foils. Four types of responses were therefore possible: (a) the correct identification of an actual sponsor as a "sponsor" (a "hit"), (b) the incorrect identification of an actual sponsor as "not a sponsor" (a "miss"), (c) the correct identification of a foil as "not a sponsor" (a "correct rejection"), and (d) the incorrect identification of a foil as a "sponsor" (a "false alarm"). Each respondent's performance can thus be summarized by two statistics: (1) a hit rate (of the 45 brands that were actual sponsors, what percentage did the respondent correctly identify as "sponsors"?) and (2) a false-alarm rate (of the 45 brands that were foils, what percentage did the respondent mistakenly identify as "sponsors"?). The identification accuracy results are summarized in Table 1.

On average, respondents were able to correctly identify ("hit") 57 percent of the actual sponsors (a "miss" rate of 43 percent) and correctly reject 60 percent of the foils (a "false alarm" rate of 40 percent). Therefore, respondents had a comparable ability to correctly identify actual sponsors and correctly reject foils. This ability, however, can be described as modest at best. The average d' statistic across respondents was 0.55, indicating that the mean "signal intensity" of the actual sponsors was only 0.55 standard deviations above that of the foils. The average a' statistic—a measure of the degree to which the proportion of hits exceeds the proportion of false alarms, ranging between .50 (zero discrimination) and 1.00 (perfect) discrimination—was .64. The distribution of "hits" and "false alarms" across respondents (i.e., the "receiver operating characteristic" graph across respondents) is depicted in Figure 1. As can be seen from this figure, even though most respondents had more hits than false alarms, on

TABLE 1
Identification Accuracy Means and Predictors

| Indices of Identification Accuracy | Mean | Standardized Regression Coefficients (Standard Errors) | | | R^2 |
|------------------------------------|------|---|-----------------------|--------------------------|-------|
| | | Education Level | Involvement with Team | Number of Games Attended | |
| Hit rate | 57% | 0.085 (0.061) | 0.078 (0.061) | 0.233*** (0.058) | .074 |
| False alarm rate | 40% | -0.130* (0.061) | -0.011 (0.062) | -0.158** (0.059) | .041 |
| d' | 0.55 | 0.199*** (0.055) | 0.157** (0.055) | 0.410*** (0.052) | .253 |
| a' | .64 | 0.236*** (0.055) | 0.123* (0.056) | 0.367*** (0.053) | .221 |
| Accuracy corrected for guessing | 23% | 0.222*** (0.056) | 0.115* (0.056) | 0.382*** (0.053) | .221 |

*Significant at $p < .05$; ** significant at $p < .01$; *** significant at $p < .001$.

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average, they had a relatively weak ability to discriminate the actual sponsoring brands from the foils. Based on a measure of accuracy corrected for guessing suggested by Hilgard (see Srull, 1984), on average, respondents were able to correctly identify only 23 percent of the spon-

sors. Although this measure was originally developed for assessing memory accuracy in free recall tasks (Srull, 1984), it has also been used in recognition tasks (see Adaval and Wyer, 2004). If we consider the probability of hit ($p[\text{hit}]$) to be an uncorrected measure of memory accuracy

and the probability of false alarm ($p[\text{false alarm}]$) to be an estimate of the magnitude of guessing, a measure of accuracy corrected for guessing is given by the following ratio:

$$\text{Corrected accuracy} = \frac{p[\text{hit}] - p[\text{false alarm}]}{1 - p[\text{false alarm}]}$$

This result provides further field evidence that people’s ability to correctly identify event sponsors is rather poor, even among sports fans attending live events. [Recall that only the data provided by those respondents who answered at least 70 of the 90 identification questions (i.e., the more diligent respondents) are included in these analyses. When analyses are extended to the entire sample, the rate of accuracy drops to chance levels (hit rate = 56.9 percent and false alarm rate = 57.9 percent).]

To gain insight into the determinants of respondents’ identification performance, each measure of identification accuracy was entered as a dependent variable in a multiple regression with three predictors: (a) the respondent’s education level, (b) the respondent’s self-reported involvement with the team, and (c) the number of games attended thus far in the season. The standardized regression coefficients (betas) are also reported in Table 1. Education level, involvement, and number of games attended all had significant positive influences on d' , a' , and the corrected accuracy score, with the number of games attended being the strongest predictor. When identification performance was decomposed into hits versus false alarms, the number of games attended again emerged as the strongest predictor. As would be expected, the number of games attended—which was presumably correlated with the respondent’s exposure to information about the sponsors—had a strong positive influence

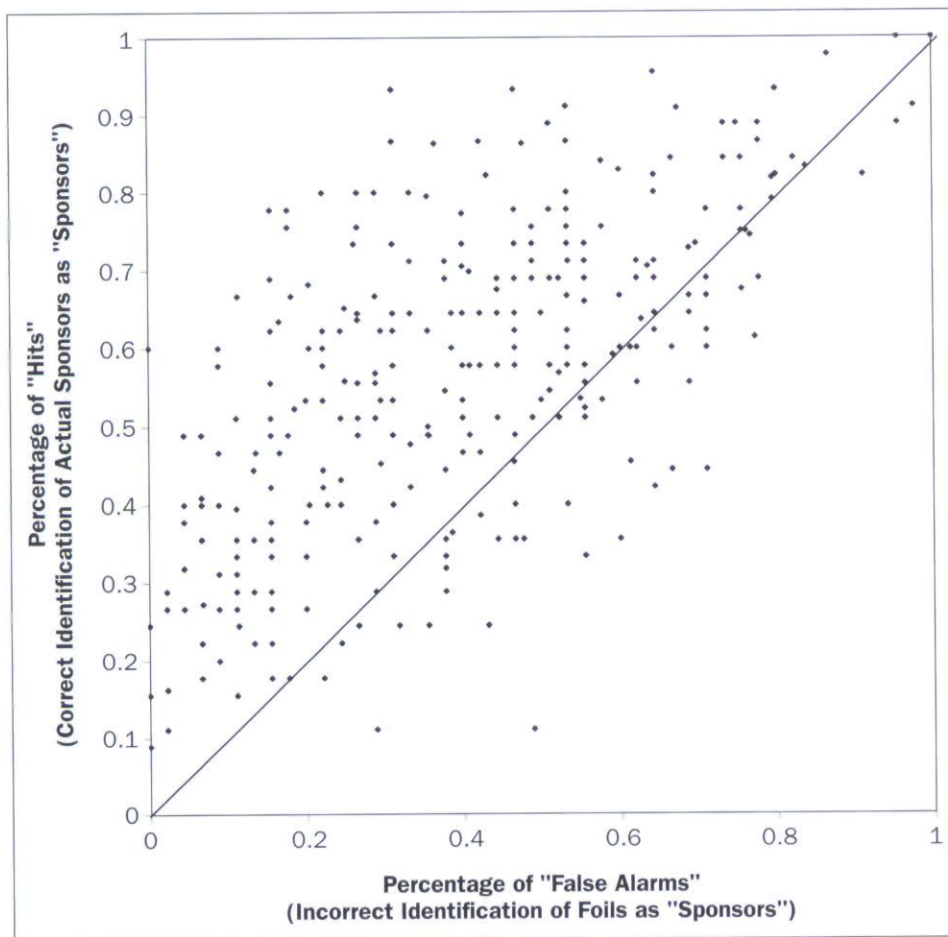


Figure 1 Distribution of “Hits” and “False Alarms” across Respondents

on the probability of hits. More interestingly, the number of games attended also decreased the probability of false alarms. In other words, exposure to information about the sponsors not only increased the chance of identifying the sponsors correctly, but also increased the ability to screen out the nonsponsors. Memory traces for event-sponsor associations seem to be perceived as diagnostic of both sponsorship and nonsponsorship. It is also interesting that the probability of false alarms also decreased as a function of the respondents' education level, suggesting that better educated respondents were more discriminating toward the nonsponsors, even though their ability to identify actual sponsors (their probability of hits) was not higher. Overall, involvement with the team was the weakest of the three predictors of identification accuracy.

There was no evidence of a curvilinear relationship between involvement and identification accuracy, unlike in Pham (1992). We believe that when exposure to the event is open (i.e., people are free to attend or not attend, watch or not watch), the overall effect of audience and viewer involvement on memory for the sponsors is generally positive. However, when exposure to the event is held constant, as it was in the Pham (1992) study, the relationship may become curvilinear (inverted-U) for sponsors that are *peripheral* to the audience's or viewers' focus of attention (e.g., the sponsors appearing on signage around a soccer or baseball field). For sponsors appearing *closer* to the audience's or viewers' focus of attention (e.g., on the athletes' clothing or on F1 racing cars), the effects of involvement are probably generally positive.

Aggregate-level analyses of the effects of plausibility

To assess whether respondents' identification judgments were influenced by the

mere plausibility of the brands as sponsors, we first examined the aggregate relationship between the plausibility scores of each brand, as assessed in the pretest, and the probability that the brand was (correctly or incorrectly) identified as a sponsor in the main study. (Given that different sets of respondents generated the plausibility scores and the sponsor identification responses, any observed relationship between the two sets of observations is a conservative estimate of the true population-level relationship between mere plausibility and brand identification as a sponsor.) This relationship is depicted in Figure 2 for actual sponsors and for foils, separately.

As can be seen from the figure, there was a strong linear relationship between the sheer plausibility of the brands as sponsors, as assessed by respondents in the pretest, and the probability that they were identified as sponsors by a different set of respondents in the main study ($b = 0.062$, $t = 4.77$, $p < .0001$, $R^2 = .21$). This relationship held for both actual sponsors ($b = 0.070$, $t = 4.22$, $p < .0001$, $R^2 = .29$) and for foils ($b = 0.074$, $t = 6.02$, $p < .0001$, $R^2 = .46$), and was slightly but not significantly stronger for the latter ($t < 1$). Therefore, although in this study there was no correlation between the plausibility (prominence, relatedness, general in-

volvement in sponsorship) of the brands and whether they were actual sponsors ($r = -.14$, n.s.), respondents' sponsor identification judgments were clearly influenced by the general plausibility of the brands as sponsors. In fact, in predicting the probability that a given brand was identified as a sponsor, the brands' plausibility was as good a predictor ($R^2 = .21$) as the fact that the brand was actually a sponsor or not ($R^2 = .21$). This result provides field-level confirmation that sponsor identification responses are not based purely on recollection and involve a substantial degree of constructive processes that capitalize on general characteristics of the brands such as their perceived relatedness, prominence, and general involvement in sponsorship (Johar and Pham, 1999; Pham and Johar, 2001). The finding that the influence of plausibility was equally strong for actual sponsors and for foils seems to challenge Johar and Pham's (1999) speculation that these constructive processes are invoked in a hypothesis-testing manner to confirm the validity of existing memory traces for the event-sponsor associations.

Individual-level analyses of identification processes

To gain individual-level insights into the processes that respondents used to generate

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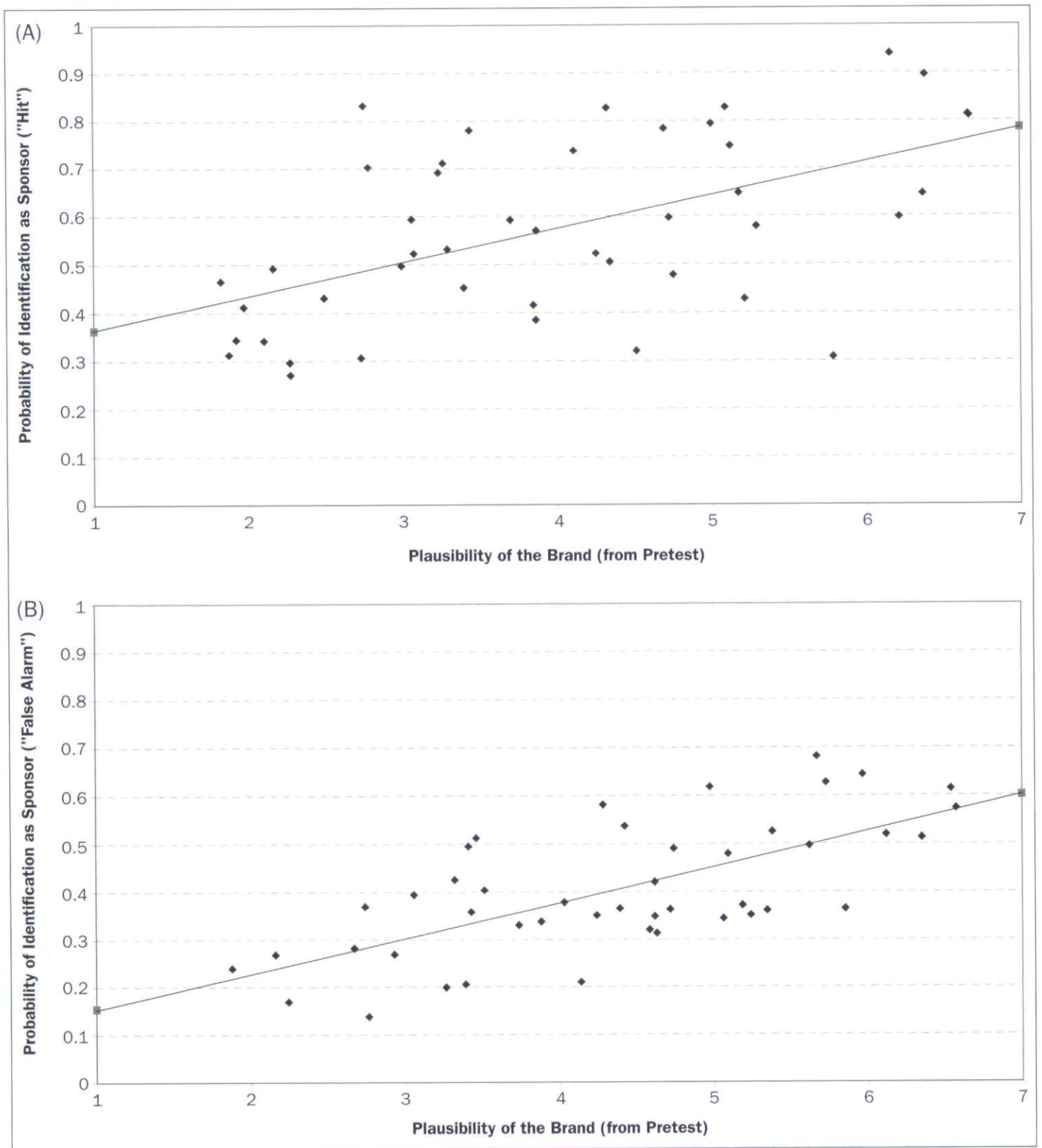


Figure 2 (A) Actual Sponsor Brands; (B) Foil Brands

their responses, the following logistic regression model was fitted for each respondent across the 90 identification responses provided:

$$\begin{aligned} \text{Identification}_i = & \alpha + \beta_1 \text{ Sponsorship}_i \\ & + \beta_2 \text{ Plausibility}_i \\ & + \beta_3 \text{ Sponsorship}_i \\ & \times \text{Plausibility}_i + \varepsilon, \end{aligned}$$

where

$$i = \text{brand (1 to 90)}$$

Identification = respondent's response (coded 1 if the brand was identified as a sponsor and 0 if it was identified as a nonsponsor)

Sponsorship = whether the brand was an actual sponsor or a foil (contrast-coded 1 if it was an actual sponsor and -1 if it was a foil)

Plausibility = judged plausibility of the brand as assessed in the pretest (standardized with a mean of 0 and a standard deviation of 1).

In this model, β_1 thus captures the degree to which an individual respondent was able to discriminate the true sponsors from the foils controlling for their plausibility. Conceptually, this coefficient should reflect mostly the degree to which respondents were able to access memory traces of the event-sponsor associations. However, it is also conceivable that this co-

efficient captures some undetermined process that also leads to correct identification independent of actual recollection and of mere plausibility. Coefficient β_2 captures how much the respondents were influenced by the mere plausibility of the brand as a sponsor, controlling for whether it was an actual sponsor. Finally, β_3 captures the degree to which the influence of plausibility was more or less pronounced for actual sponsors versus nonsponsors.

The model converged for 302 respondents (out of 316). Of these, 51 percent (155/302) had actual-sponsorship (β_1) coefficients significant at the .05 level and 60 percent (185/302) at the .10 level. As would be expected, all but a few of those respondents with reliable actual-sponsorship coefficients (151 out of 155 and 179 out of 185) had positive coefficients. The distribution of these β_1 coefficient across respondents is depicted in Figure 3A. Note that these respondents were not necessarily very accurate. A significantly positive coefficient for actual-sponsorship (β_1) only indicates that a respondent was able to detect actual sponsors above chance. More interesting is the distribution of the plausibility (β_2) coefficients across respondents, which is depicted in Figure 3B. As can be seen from the figure, this distribution was strongly skewed toward positive coefficients. Fifty-six percent (170/302) had plausibility coefficients significant at the .05 level and 64 percent (194/302) at the .10 level. Of those with reliable plausibility coefficients, the vast majority (168 out of 170 and 191 out of 194) again had positive coefficients. The reliance on plausibility was therefore widespread across respondents, rather than restricted to a small set of respondents.

Table 2 summarizes the *joint* distribution of the actual-sponsorship and plausibility coefficients across respondents. A majority of respondents (54.6 percent) had

only one or the other coefficient significantly positive at the .05 level, suggesting that they were using only one mechanism to identify the sponsors. Of these, slightly more relied on plausibility alone (29.8 percent) than did on actual-sponsorship alone (24.8 percent). A quarter of the respondents (24.8 percent) had *both* coefficients significantly positive at the .05 level, suggesting that they were using a combination of plausibility-based inferences and pure recollection to identify the sponsors. Note that this finding does not mean that these respondents were using this particular combination of processes on *every* trial (which would be captured by the interaction [β_3] coefficient, as discussed below). Rather, this finding indicates that these respondents relied on these two types of processes *across* trials. For 18.5 percent of the respondents neither coefficient was significant, suggesting that they were engaging in some random-like form of guessing. The remaining few respondents (2 percent) had one or the other coefficient significantly negative.

If, as suggested by Johar and Pham (1999; Pham and Johar, 2001), heuristics of sponsor identification are invoked in a hypothesis-testing fashion as a means to validate existing memory traces for the sponsors, one would predict positive interactions between plausibility and actual sponsorship (β_3). The "simple effect" of plausibility should be stronger for actual sponsors than for foils. Contrary to this prediction (and consistent with the aggregate results), only few respondents exhibited such interactions. Only 3 percent of the respondents (9/22) had interaction coefficients significant at the .05 level and 7 percent (22/302) at the .10 level. Moreover, for some of them (1 of the 9 and 7 of the 22), the interaction was in fact negative. We provide a possible explanation for this discrepancy with the earlier Johar and Pham results in the discussion.

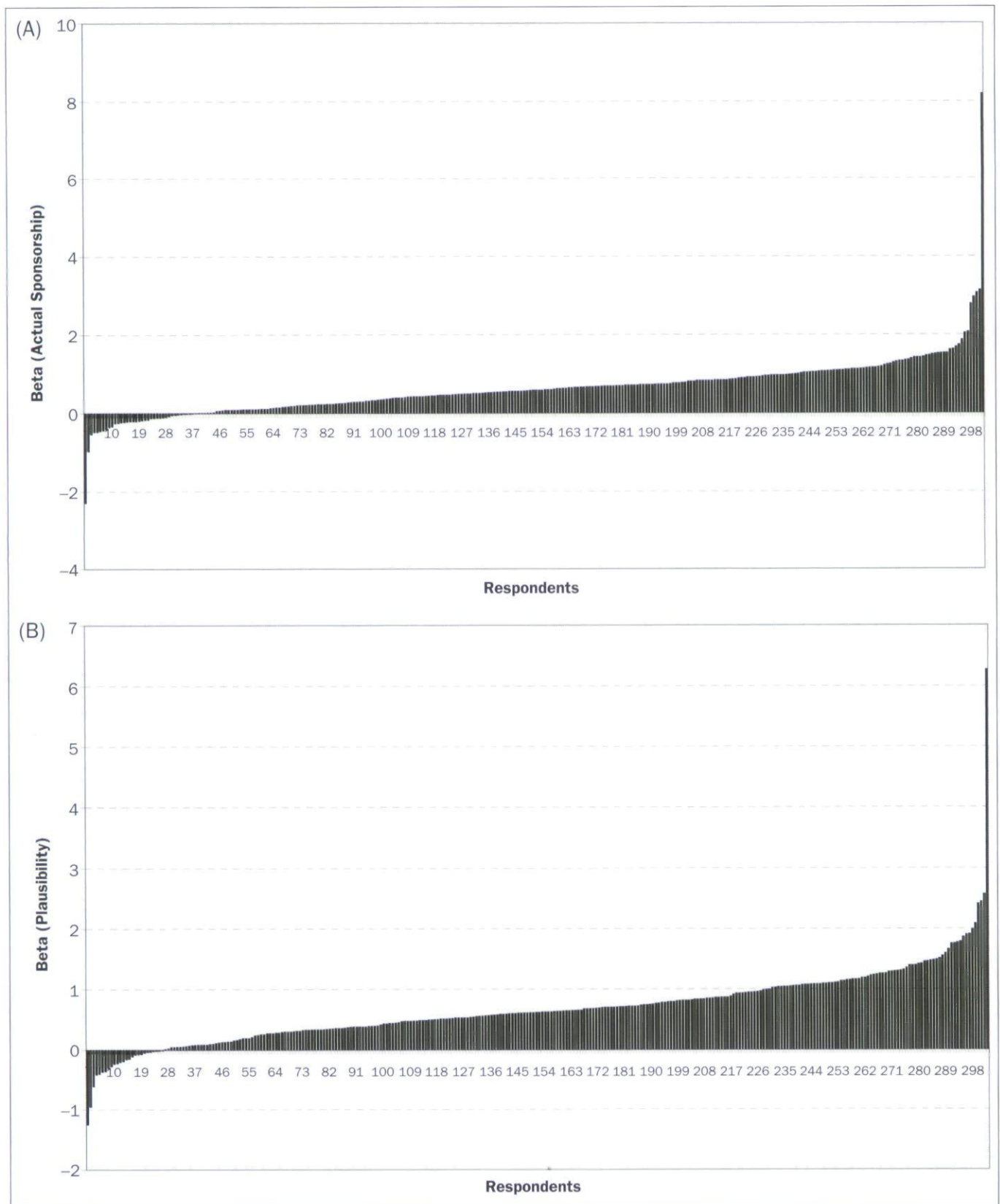


Figure 3 (A) Distribution of Actual Sponsorship Beta Coefficients across Respondents;
 (B) Distribution of Individual Plausibility Beta Coefficients across Respondents

TABLE 2
Distribution of Individual Plausibility and Actual Sponsorship Weights across Respondents

| Coefficients for Plausibility | Coefficients for Actual Sponsor Status | | | Total |
|--|--|--|--|-------------|
| | Nonsignificant at $\alpha = .05$ | Significantly Positive at $\alpha = .05$ | Significantly Negative at $\alpha = .05$ | |
| Nonsignificant at $\alpha = .05$ | 56 (18.5%) | 75 (24.8%) | 1 (0.3%) | 132 (43.7%) |
| Significantly positive at $\alpha = .05$ | 90 (29.8%) | 75 (24.8%) | 3 (1.0%) | 168 (55.6%) |
| Significantly negative at $\alpha = .05$ | 1 (0.3%) | 1 (0.3%) | 0 (0%) | 2 (0.7%) |
| Total | 151 (50.0%) | 147 (48.7%) | 4 (1.3%) | 302 (100%) |

To further document the idea that the effects of brand plausibility on sponsor identification arise from a strategic reliance on a plausibility heuristic, we tested the consistency of respondents' weighting of plausibility as follows. We randomly split the 90 brands into two sets of 45 brands (with balanced numbers of actual sponsors and foils) and fitted, for each respondent, the same logistic regression model as shown above, but for each set of 45 brands, separately. We then examined the correlations among the coefficients uncovered for the two sets of brands across respondents. The plausibility coefficients obtained for one set of brands were strongly correlated with the plausibility coefficients obtained for the other set of brands ($r = .74$, $p < .0001$). This high correlation indicates that respondents were in fact quite consistent in how much they were influenced by the plausibility of two nonoverlapping sets of brands. This finding is consistent with the idea that the effects of plausibility were driven by a strategic reliance on plausibility heuristic rather than a more ad hoc mechanism.

DISCUSSION

Limitations of the research

We should acknowledge the limitations of the research. The study's generalizabil-

ity remains modest even if the study was conducted in the field. The study examined sponsor identification in a single domain (minor league baseball), a single geographical market (Memphis), and a single setting (Redbirds game attendees of that season). The field setting obviously did not allow the same degree of experimental control as in a lab experiment. In addition, the correlations between prominence and relatedness constrained us to use a plausibility index. This did not allow for a fine-grained analysis of each of the two heuristics of identification. Moreover, the use of the plausibility heuristic was estimated by combining identification judgments from one set of respondents with the prominence and relatedness ratings of another set of respondents. Theoretically, the use of different sets of respondents should make our estimates of reliance on plausibility conservative. However, if feasible, one would prefer to obtain all the judgments from the same set of respondents.

Since this study was conducted, some shifts in media spending have crowded the sponsorship playing field. Corporate promotional dollars invested in sponsorships has been growing at a rate of 15 percent while other advertising and me-

dia expenditures have slowed (Vranica, 2005). While some organizations have continued to take on as many sponsors as will give them money, others have opted for a "less is more" strategy that limits the number of sponsors they will accept (see Clarke, 2004). Consequently, in some settings, individuals may be exposed to greater levels of clutter than exhibited in this field study. In other cases, the strategic aim of the organization to minimize clutter for its sponsors may result in improved identification accuracy. Future research examining the effects of these strategies would provide insight into our understanding of information processing of sponsorships. All these limitations notwithstanding, the results seem to suggest the following implications.

Identification accuracy and its correlates

The level of sponsor identification accuracy (i.e., the "hits") observed in this study was modest at best. While not totally new, this finding is noteworthy. Recall that, unlike in previous studies, the data came from a sample of real sports fans that were tested at the event venue (albeit out of sight of the sponsors' signage). Moreover, only the responses of those who completed most of the test—presumably

Sponsor expenditure (and presumably exposure) was only moderately predictive of eventual identification and credit.

(antacids) has made its name an integral part of Major League Baseball by sponsoring the annual Rolaids Relief Pitcher of the Year award. One of the highest accuracy levels at the Memphis Redbirds belonged to a midlevel sponsor, Hunter Fans, who sponsored the "Hunter Fan of the Game." In-between an inning at each game, a lucky fan was presented a Hunter ceiling fan by the Redbirds' roaming DJ and broadcast live on the video scoreboard.

Sponsor identification revisited

Our main objective, however, was to clarify how sponsor identification (or misidentification) operates in a real field setting. Consistent with previous experimental results, there was evidence of a substantial amount of construction in the fans' identification responses. In fact, both aggregate-level and individual-level results suggest that the fans' identification responses were driven more by a heuristic of mere plausibility than by a direct recollection of the actual sponsors. Reliance on this heuristic was not limited to a few respondents but indeed very widespread. Note that the term heuristic in this article does not suggest a "shortcut" to judgments; rather, consumers use these inference rules only if direct retrieval fails. In this sense, they are conditional heuristics. The widespread reliance of such heuristics has theoretical as well as substantive significance. Theoretically, this finding highlights the importance of treating sponsor identification—and, more generally, the identification of any source of marketing communication—as a judgment task, as opposed to a strict memory task. Substantively, the widespread use of such

heuristics suggests that there is a substantial amount of *systematic* (as opposed to random) error in existing estimates of sponsor identification. Existing industry practices do not appear to account for this systematic error, either in terms of how sponsorship strategies (e.g., which property should a company sponsor) are designed or in terms of how sponsorship effectiveness is assessed (see IEG, 2000). Market research analyses of sponsorship effectiveness should take into account the role of plausibility factors such as relatedness and prominence in producing apparent accurate sponsor identification. For example, a "related" company may not have much cause to celebrate if the seeming effectiveness of their sponsorship was driven primarily by educated plausibility guesses. In fact, the company might have obtained similar benefits even in the absence of actual sponsorship.

The results also qualify earlier propositions regarding how the heuristics of identification interact with the person's recollection of the sponsor. Johar and Pham (1999; Pham and Johar, 2001) suggested that these heuristics may be used in a process of hypothesis testing (see Klayman and Ha, 1987). Specifically, respondents may use a brand's relatedness or prominence to verify their possibly vague recollections of the actual sponsors (or use their recollections of the sponsors to verify hypotheses based on relatedness or prominence). If this hypothesis-testing process does take place, positive identification should be higher among brands that are *both* actual sponsors and prominent or related—a pattern that Johar and Pham (1999; Pham and Johar, 2001) did observe.

However, these authors' inferences were based on *average* identification responses across respondents. Our disaggregate analyses suggest that, in fact, only few respondents used the hypothesis-testing process described by Johar and Pham. A greater number of respondents seemed to use plausibility *independently* of their recollections.

In conclusion, the findings of this study provide additional field-level evidence that accurate sponsor identification is problematic and that identification responses often reflect no more than mere judgments of plausibility (if not quasi-random guesses). Sponsors should bear these results in mind in making their sponsorship decisions and in interpreting research results on sponsorship effectiveness. Pham and Johar (2001) recently offered several practical recommendations for current and potential sponsors, which we adapt here.

1. Actual sponsors that are plausibly related to the sponsored property are more likely to be correctly identified and recognized. However, there is a risk that they overestimate the true effectiveness of their sponsorship because a fraction of the "correct" identification responses may in fact be due to educated plausibility guesses. To obtain a more accurate measure of the true effectiveness of their sponsorship, we recommend that such sponsors include other equally plausible brands as foils in surveys of sponsor identification.
2. Sponsors that are not plausibly related to the sponsored property are less likely to be properly identified. To overcome this disadvantage, we recommend that they invest extra resources in marketing communication (e.g., TV advertising) around the property to reinforce their association to the property. In addition, they may consider focusing part of their messages in creating a sense of

logical connection between their brand and the property. For example, a computer network software company that may not be very plausibly related to an athletic sports property (e.g., a soccer cup) could use connection-building messages such as "The Software Company that Links All Soccer Fans Together." "Implausible" sponsors should also plan and take preventive measures to protect against ambush marketing from other companies that are more plausibly related to the property. Still, overall, candidate sponsors should probably avoid properties to which they are not plausibility related.

3. Interestingly, our research also identifies the situations in which the ethically questionable practice of ambush marketing is likely to be more effective. Specifically, ambush marketing is likely to be the most effective when there is a high plausibility relation between the property and the ambush marketer. When the relation is intuitively less plausible, ambushes are likely to be ineffective.
4. Finally, some companies may find out that they are often incorrectly identified with certain properties that they do *not* actually sponsor. These systematic misidentifications ("false alarms") may reveal a strong plausibility relation between the company and the property. Such companies may use these "false alarms" as a means of identifying which properties they should consider sponsoring. **JAR**

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