

Sponsorship, Ambushing, and Counter-Strategy: Effects Upon Memory for Sponsor and Event

Michael S. Humphreys
University of Queensland

T. Bettina Cornwell
University of Michigan

Anna R. McAlister, Sarah J. Kelly, Emerald A. Quinn, and Krista L. Murray
University of Queensland

Corporate sponsorship of sports, causes, and the arts has become a mainstream communications tool worldwide. The unique marketing opportunities associated with major events also attract nonsponsoring companies seeking to form associations with the event (ambushing). There are strategies available to brands and events which have been ambushed; however, there is only limited information about the effects of those strategies on attainment of sponsorship objectives. In Experiment 1, university staff and students participated by studying paragraphs linking a sponsor to a novel event. Relative to each sponsor-event pair, they then studied one of three different messages about a competitor. Results find a message which linked the competitor and the event increased competitor recall given the event as a cue and event recall given the competitor as a cue. These effects were moderated if there was information about the competitor not being the sponsor. In Experiment 2 ambushing and counter-ambushing information was presented over 2 days. Both types of messages increased competitor recall given the event as a cue and event recall given the competitor as a cue. In addition, “not sponsor” information was not always used even when it should have been recallable. The results can be explained if participants are using three cues: a specific cue such as a brand name, a contextual cue, and a category cue, such as the concept of an event. Findings suggest to sponsoring firms and event properties that counter-ambushing communications may have the unintended effect of strengthening an ambusher-event relationship in memory.

Keywords: memory, interference, retrieval cues, corporate sponsorship, ambushing

The stakes in sponsorship investment around major events are high. Companies paid a record \$2 billion to secure official sponsorship status at the Beijing Olympics in 2008, compared to just \$338 million at Seoul in 1988, a substantial increase, even accounting for inflation (Davies, 2008). Likewise, official sponsors of sporting events such as the FIFA World Cup, Super Bowl and NASCAR Championships pay millions of dollars to secure top tier rights to affiliate with these events (IEG, 2007; McKelvey & Grady, 2008). Moreover, it is estimated that companies spend at least three times this initial outlay on sponsorship activation costs (IEG, 2007). These unique marketing opportunities also attract nonsponsoring companies who seek to form an association with the event. Such an activity—where a nonsponsoring company associates itself with an event without paying for sponsorship rights—is known as “ambushing” (Shani & Sandler, 1998).

Ambushing activities include use of phrases and images associated with the event or activity, purchase of advertising time

within the event broadcast, presence in and around the venue, as well as use of consumer promotions and congratulatory messages (McKelvey & Grady, 2008). Ambushing potentially devalues the sponsorship by causing confusion and by diluting exclusivity of sponsoring brands. Sponsors and event organizers often seek to combat ambushing by using “market friendly,” counter-ambushing strategies which support achievement of sponsorship objectives without backfiring on brand image. In pursuit of this goal, it is important to understand the underlying memory process for these various messages. Memory for brands in terms of brand recall and brand associations are fundamental to consumer-based brand equity (Keller, 1993) because they influence consumer behavior. Without memory for brands we could not ask someone for a specific product (e.g., “Would you buy some Kashi cereal when you go to the store?”) nor could you give them a helpful cue (e.g., “You know, the one in the purple box.”). Memory for brands and their associations is particularly important in ambushing because outcomes hinge on awareness of the true sponsor and the ambushing attempt; furthermore awareness of ambushing is argued to result in negative attitudes toward ambushers (Dalakas, Madrigal, & Burton, 2008). This discussion suggests that memory for the links among the true sponsor, the event, and the ambushers are foundational to attitude and subsequently to consumer behavior. We seek to better understand the memory for these messages and thereby offer suggestions for specific actions that could be taken

Michael S. Humphreys, Anna R. McAlister, Sarah J. Kelly, Emerald A. Quinn, and Krista L. Murray, University of Queensland Business School; T. Bettina Cornwell, University of Michigan School of Kinesiology.

Financial support from the Australian Research Council Grant DP0772168 to the first three authors is gratefully acknowledged.

Correspondence concerning this article should be addressed to Michael S. Humphreys, School of Business, University of Queensland, St Lucia, Queensland 4072 Australia. E-mail: mh@humanfactors.uq.edu.au

by event organizers and sponsors to limit adverse effects of ambush marketing by nonsponsoring competitors.

Sponsorship is defined as an exchange between sponsor and event property whereby the event property receives compensation and the sponsor obtains the right to associate itself with the event; typically with the objectives of developing awareness and image (Cornwell, Roy, & Steinard, 2001). Surprisingly little empirical research has examined the impact of ambushing on sponsorship objectives such as brand awareness and image enhancement. While research on ambushing has focused upon its conceptualization and legitimacy, few studies have examined consumer response to ambushing and these are primarily field surveys (e.g., Graham, 1994; Sandler & Shani, 1993, 1989; Shani & Sandler, 1998; Stotlar, 1993). The findings have been inconsistent, perhaps due to the country-specific nature of these studies and the influence of uncontrolled variables. Such variables include prior brand experience, event involvement, and brand prominence (see Johar & Pham, 1999). There is empirical support for the notion that viewers have difficulty distinguishing sponsors from ambushers (e.g., Kinney & McDaniel, 1996; McDaniel & Kinney, 1994; Sandler & Shani, 1989; Stotlar, 1993) and that ambushers may fare as well as sponsors in terms of recall and recognition, attitude to brand, and purchase intent (McDaniel & Kinney, 1994; Sandler & Shani, 1989). However, a major limitation of these studies is that during the study, task participants did not see official sponsors in conjunction with ambushers and were therefore not directly tested on their ability to distinguish between the two.

As mentioned, research attention has been directed toward the legal and ethical debate surrounding ambushing practice (e.g., Hoek & Gendall, 2002; Hoek, Gendall, Fox, & Erceg, 1997; O'Sullivan & Murphy, 1998) and has recently construed ambush marketing as a legitimate competitive marketing practice (Hoek & Gendall, 2002; Meenaghan, 1996). As such, event organizers expect ambushing at large events, and—often as part of contractual obligations with sponsors—devote extensive resources to limiting ambushing practice. Despite claims of protection under both general law and specific anti-ambushing legislation, companies still face ambushing attempts (McKelvey & Grady, 2008; Michaelis, Woisetschläger, & Hartleb, 2008). Legal protection poses practical challenges that deter sponsors from litigating ambushing attempts. True sponsors may therefore plot their own strategies of recourse or rely on event organizers to do so.

Event organizers are often responsible for the instantiation of any counter-ambush strategies due to the contractual frameworks governing sponsorship arrangements. A heavy handed approach, relying upon anti-ambushing legislation may be supported in extreme cases of ambushing, but historically, there has been reluctance for sponsoring brands to take this approach, presumably for fear of a backlash in the form of negative publicity (Hoek et al., 1997; McKelvey & Grady, 2008). Moreover, courts of law have rarely supported such claims (Miller, 2008). In the case of more subtle ambushing attempts which do not infringe on protected words, symbols, or emblems, event organizers resort to public relations activities such as press releases and press conferences to sensitize the public to ambushing. In this approach, true sponsors may “name and shame” ambushing brands. There is however, no research-based understanding of the outcomes associated with such a strategy. In other areas of corrective or counter communications, it has become accepted that the outcomes of these strate-

gies are difficult to predict. Recent research has found that corrective advertising may cause collateral damage to the predator brand that was previously unsuspected (Darke, Ashworth, & Ritchie, 2008).

Against this backdrop, researchers have yet to ask practical and theoretical questions regarding the impact of counter-ambushing strategies by event stakeholders. Here, we employ two experiments to examine whether sponsor recall is diminished and/or competitor recall increased as a result of ambushing, and also to address the role of counter-ambush strategy. Specifically, this paper investigates the following questions:

1. Does ambushing by a competing brand damage sponsoring brands (i.e., through reduced sponsor recall and/or increased competitor recall) when consumers are *unaware* of the ambushing nature of such advertising tactics?
2. Does ambushing by a competing brand damage sponsoring brands even when consumers are *aware* of the ambushing nature of such advertising tactics?
3. Does counter-ambushing strategy benefit sponsoring brands (i.e., through improved sponsor recall and/or reduced competitor recall) in circumstances where consumers *have not* been exposed to the ambushing tactics?
4. Does counter-ambushing strategy benefit sponsoring brands in circumstances where consumers *have* been exposed to the ambushing tactics?

There is probably no completely general answer to these questions because the situations in which ambushing and counter-ambushing attempts occur are highly variable, as are the characteristics of those attempts. While not a direct parallel, the attempts to understand spacing and repetition effects in advertising (Appleton-Knapp, Bjork, & Wickens, 2005; Janiszewski, Noel, & Sawyer, 2003) pose a similar level of complexity. Because of this variability, there are also a large number of memory theories and findings which are potentially applicable. To bring these theories and findings to bear on this problem, we examine limited but important aspects of the problem and address these issues as we explain our experimental materials.

Initial Sponsorship Exposure

While an individual may receive publically available communications in any order, this research is limited to a starting point where a sponsorship relationship is known. In each of two experiments, we first present information identifying real brands as sponsors of fictitious events. This information is presented in the form of a simulated press release (cf. Johar & Pham, 1999) that has the potential to establish a link between the sponsor and event in memory.

Although the press release is just one of many ways that information about a sponsor-event link may be acquired, it is decidedly commonplace in today's media market. Press releases found in newspapers, magazines, and traditional broadcast media are now picked up on the Internet in “latest news” and “newswire” sections of websites for sports, events, business, cities, and regions. Natu-

rally, press releases are also the central focus of news sites. The formatted presentation of these news stories is designed to briefly show a few important sentences with the potential to read more about the story via a “click-through” often to a more extensive story. This sort of presentation parallels the exposure episodes utilized in the current research. Finally, it should be noted that much of the exposure to sponsorship of sports and events is via media not from attending. The attending audience for any major event is minuscule compared to those learning about a sponsored event at a distance via broadcast media and the Internet.

Ambushing and Counter-Ambushing Communications

Following the presentation of sponsorship information, we then present additional ambushing and counter-ambushing information before testing for participant recall of brand-event relationships. Again, this information is presented in the form of a simulated press release. Reading a press release/Internet story or hearing a short news story is the normal way consumers learn about ambushing events and almost the only way they learn about counter-ambushing attempts. In these subsequent press releases (described in more detail in the experiments), the competitor is in the same brand category as the sponsor and as such is approximately equally congruent with the event. Some ambushing attempts are perceived by consumers as being clever and may induce positive affect. This is an important facet of ambushing, but is beyond the scope of the present study. Because we felt that it was important to understand the informational content and impact of these messages before confronting the difficulties involved in investigating the emotional content and impact (e.g., the prose to set up humorous ambushing) would be long and the appreciation of the humor in these situations will depend on individual variables (see Cline, Altsech, & Kellaris, 2003). Instead, all of the ambushing events in our vignettes are described in limited detail and may therefore be perceived as relatively bland.

Experiments 1 and 2 are designed to test preliminary expectations about what would be learned, retained, and retrieved from these simulated press releases. Based on prior research, we expect that any communication which links a competitor and an event would establish a link in memory between that competitor and the event (see Cornwell, Humphreys, Maguire, Weeks, & Tellegen, 2006). This competitor-event link is expected to be reflected in a reduction of recall when we cue with the event for the sponsor and an increase in the number of times the competitor is produced. That is, a classical associative interference or cue overload situation can be expected (Barnes & Underwood, 1959; Watkins & Watkins, 1975). Intrusions are, however, frequently a more sensitive measure of cue overload (Tehan & Humphreys, 1996), thus, we are more confident in finding an increase in intrusions than in finding a decrease in sponsor recall.

In addition, we expect that participants will store other information which could modify these predictions. That is, if a press release about an ambushing attempt explicitly states that the competitor is not an event sponsor, or if the text allows participants to infer that the competitor is a nonsponsor, then this information—if stored and if retrieved at test—could modify performance. For example, if a participant recalls the competitor but also recalls the text which stated that competitor brand was not the sponsor, then they would probably continue trying to recall the sponsor. Such an

editing of their responses could increase sponsor recall and reduce the competitor intrusion.

Retention Interval

Past research suggests that particular information about a “non-sponsor” might have a stronger impact at short retention intervals than at longer intervals. That is, a large number of studies have shown that the gist of a sentence or paragraph is generally better retained over time than are the more specific details (Alba & Hasher, 1983). Given a longer retention interval, participants may remember only the gist of press releases and forget the specific detail that an ambushing competitor brand was a nonsponsor.

Direction of Cueing

Cueing With Sponsor

Direction of cueing is also important to understanding memory. When cueing with the sponsor, we do not expect that an ambushing attempt will adversely affect event recall. In this situation, the sponsor is linked to the event and may or may not be episodically linked to the competitor. Because both the sponsor and the competitor are in the same brand category, there is presumably a preexisting link between the sponsor and the competitor. However, the prediction that an ambushing attempt will not affect event recall given the sponsor as a cue holds regardless of whether or not there is either an episodic or a preexisting link between the sponsor and the event. That is, it is expected that participants will use both the sponsor and the generic concept of an event as retrieval cues and under these conditions items from a different conceptual category do not interfere (Underwood, 1983). Nevertheless, we include a condition in which we cue with the sponsor in both of our experiments. By doing so, we obtain a better understanding of the memory traces that have been laid down and it makes allowance for surprises. That is, although we are applying well-established ideas, we are doing so in a new situation with material that is considerably more complex.

More generally, research by Underwood (1983) may provide hints about the cues participants will use, especially when recall is delayed. Briefly, cumulative proactive interference had previously been found (Postman & Keppel, 1977) when, over a period of several days, lists of paired words learned on one day and recalled the next are followed by another list and another recall et cetera. Under these conditions, recall declines with the number of lists learned. In response to these past findings, Underwood (1983) changed the manipulation by creating lists where paired associates on each list came from two categories (e.g., the cues were metals and the targets were animal names) and these two categories were different from the ones used in any other list (e.g., flowers and birds). Underwood found no build up of proactive interference when study participants were able to use category cues to support memory. Researchers have subsequently shown that when attempting to recall, for example, to a particular *metal* cue individuals use a representation of the context (e.g., the day the materials were learned) as an additional cue (Humphreys, Bain, & Pike, 1989; Weeks, Humphreys, & Hockley, 2007). When the contextual cue is similar across instances of learning (e.g., other days of study) there is proactive interference. However, use of a category cue such as *animal* in Underwood's

(1983) experiment eliminates the interference from earlier lists. Note that the presentation of a specific *metal* cue tells the participants that the cues are *metals* and this information in turn can lead to remembering that the targets are *animals*. It is the elimination of interference that makes it highly likely that the category of the targets is being used as an additional cue.

In keeping with the Underwood (1983) study, participants in the present research may use a specific cue (e.g., a brand name), a context cue, as well as cues that function like Underwood's categories (e.g., a concept of an event or brand), in their retrieval attempts. It is possible to transform these simple ideas about the cues used into a theory of memory access. This is, however, deferred to the General Discussion as the details about how the theory works in practice depends critically on the order in which information is presented.

Cueing With Competitor

We can also cue with the competitor for recall of the event. For example, this might occur when a consumer encounters the competitor on a store shelf and attempts to recall information about the brand. Here we expect very low levels of event recall to the cue of the competitor brand on the shelf, if there is not an established link between the competitor and the event. Sharply higher levels of recall would be expected if there is an established link. This prediction is based on two lines of argument. First, brands in the same industry category are assumed to have somewhat similar representations in memory. There is some evidence in the marketing literature to support this assumption. Specifically, recognition studies show that two brands in the same product category can be confused (Clancy & Trout, 2002). It is also the case that brands in the same product category will have common features, they may sponsor similar events, and they are encountered in similar contexts (Landauer & Dumais, 1997).

Second, it is assumed that, in an associative learning situation, a similar word can substitute for a cue that actually occurred in the learning situation. For example, Eich (1982) had participants learn a paired associate list. At test, she provided them with both valid cues (a word which had appeared in one of the pairs) and substitute cues (a word which was a synonym of one of the words in a pair, but had not previously been encountered). Apparently, the participants did not notice this substitution and recalled the other member of the pair, albeit with a reduced probability. Maguire (2005) extended this finding by using only a single learning trial and informing her participants that some of the cues had been studied as part of a pair whereas others had not been studied. In spite of this warning, participants continued recalling to the substitute cues. In fact, it appears that participants typically do not try to recognize words before trying to use them as a recall cue. They may also spend little time trying to evaluate the appropriateness of the word they recall. This observation is supported by the Moses illusion in semantic memory (Reder & Kusbit, 1991). Here participants are asked a seemingly obvious but anomalous question such as "How many animals of each kind did Moses take aboard the ark?" This sentence is a very good retrieval cue for the answer "two" and respondents frequently do not notice that the question uses the name Moses in place of Noah. Hence, we expect that a sponsoring brand and competing (ambushing) brand may be similarly confusable in memory. We expect this confusability will produce low level event recall given the competitor as cue even in

situations where exposure does not establish a link between the competitor and the event.

Experiment 1

Experiment 1 was designed to show that the critical aspect to ambushing is the establishment of a link between the ambusher and the event. In addition to establishing the importance of a link with the event, we also wanted to show that the effects of this link could be moderated by explicit knowledge presented or readily inferred from the paragraph.

Method

Participants

Participants were 80 university students and staff (47 women, 33 men) ages 18 to 57 ($M = 22.40$, $SD = 5.44$). These participants were drawn from a paid participant pool at the University of Queensland, Australia. Each person received \$10 for their participation. All participants spoke English as their first language and all participated in individual sessions. There were 20 participants randomly assigned to each of four conditions. Participants were recruited via a paid participant pool and were only allowed to sign-up for one study to avoid participant overlap.

Design

As illustrated in Figure 1, the experiment involved the manipulations of: 1) the nature of competitive mention within-subjects (competitor-event mention, competitor-only mention, no-competitor mention); 2) the likely inference made regarding the

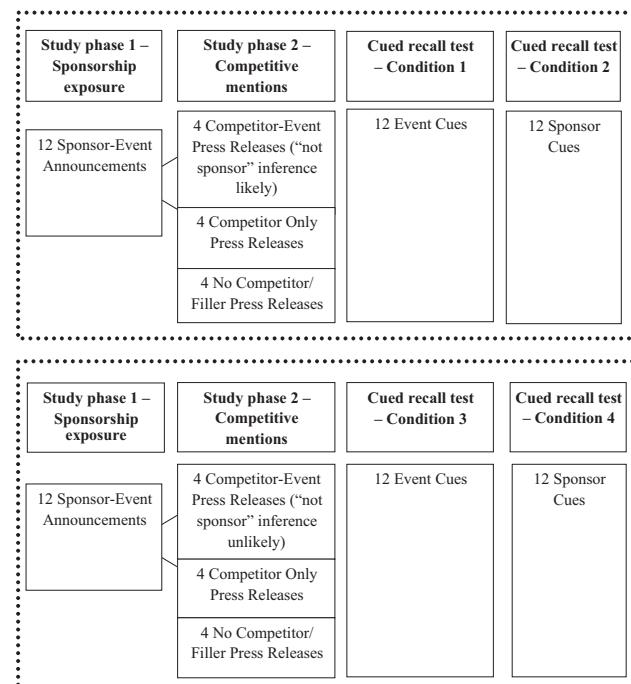


Figure 1. Manipulations employed in Experiment 1.

nature of the competitor-event link between-subjects (“not sponsor” inference likely vs. unlikely); and 3) the test cue between-subjects (sponsor cue, event cue). Proportion correct on the cued recall task served as the dependent variable.

Materials

Twelve sets of press releases were constructed. Each set consisted of a sponsorship paragraph, a competitor-event mention paragraph, a competitor-only paragraph, and a no-competitor mention paragraph. Each sponsorship announcement was a passage of text, four sentences in length, announcing a sponsorship deal between a company and event. The first sentence included the name of the company, a brief description of the company in relation to the industry (to ensure participants were familiar with the company’s domain), and the name of the event. The second sentence described the event. The third and final sentences described and reinforced the reason for the sponsorship. In each press release, the name of the sponsor was mentioned three times across the four sentences and the event name twice. The competitor-event mention paragraphs not only mentioned a competitor brand, but also linked the competitor to the event thereby creating an ambush scenario.

The “no-competitor” and “competitor-only” paragraphs served as controls since they did not create an ambush scenario by linking

a competitor and event. These control paragraphs typically involved statements about new product launches. The “no-competitor mention” paragraphs were unrelated to any of the brands previously mentioned as sponsors, while the “competitor-only mention” paragraphs mentioned a competitor of one of the sponsors but did not link the competitor to the event. See Table 1 for sample stimuli.

Given that congruence between sponsor and event has been shown to influence memory (Cornwell et al., 2006), for consistency, all versions of the press release were for a congruent sponsor-event relationship. Real brand names were utilized to afford existing congruence and similarity rather than seek to establish these via training with fictitious brand names. Moreover, brand names were identified as major competitors in their category via a search of the Hoover’s Online company and industry database (some exceptions were made to match to the concentration of local distribution). Care was taken so that the product category (as judged by the experimenters) was unique for each brand–competitor pair.

Procedure

As depicted in Figure 1, the experiment consisted of two study phases and one test phase. In the first study phase, all participants were instructed that they would be required to read a series of press releases from a computer monitor that told of newsworthy events

Table 1
Sample Stimulus Materials Used in Experiment 1

Study phase 1 (sponsorship announcement): Billabong and Pacific Surfing Contest

Today saw international surfing goods brand Billabong taking out a three-year sponsorship agreement with the new Pacific Surfing Contest. The contest will feature both amateur and professional events and is expected to attract surfers from all over the world. Billabong sees the Pacific Surfing Contest as the perfect opportunity to display their latest range of clothing, accessories, and wetsuits. Billabong says the event is purpose-built for marketing their products as items suited to surfing and beach culture.

Study phase 2 (competitor-event mention; “not sponsor” inference likely): Quiksilver and Pacific Surfing Contest

International surfing goods brand Quiksilver is offering its customers the chance to win tickets to the annual Pacific Surfing Contest by sending in two-minute videos of themselves performing their best surfing trick. The winner will attend this year’s much anticipated Pacific Surfing Contest, which is expected to attract both amateur and professional surfers from all over the world. Although failing to secure sponsorship rights to the top-line surfing event, Quiksilver views the competition as the perfect platform to connect with young people. “I think that this sort of activity connects with young people in a really entertaining way,” Quiksilver’s marketing manager said in a written statement today.

Study phase 2 (competitor-event mention; “not sponsor” inference less likely): Quiksilver and Pacific Surfing Contest

International surfing goods brand Quiksilver is offering its customers the chance to win tickets to the annual Pacific Surfing Contest by sending in two-minute videos of themselves performing their best surfing trick. The winner will attend this year’s much anticipated Pacific Surfing Contest, which is expected to attract both amateur and professional surfers from all over the world. Quiksilver views the competition as the perfect platform to connect with young people. “I think that this sort of activity connects with young people in a really entertaining way,” Quiksilver’s marketing manager said in a written statement today.

Study phase 2 (competitor only mention): Quiksilver

Surfing goods manufacturer Quiksilver today announced that their much-anticipated 320-page, full colour book ‘The Mountain & the Wave’ will be available in stores next week. The book is the complete, inside-out story, told for the first time, of the company that began when two surfers followed a dream—to live on the beach, go surfing and make a living. Quicksilver says it is a story for all who ever wanted to follow a dream rather than a routine. ‘It’s an exciting story because it’s not just about Quiksilver,’ the company said in a statement here.

Study phase 2 (no competitor mention/filler): Boeing

Aerospace and defense corporation Boeing today unveiled concepts of luxury and comfort for the 787 VIP airplane. Described by company executives as the ‘Ultimate Business Jet,’ The VIP-configured 787 offers 260 square meters of cabin space and custom interior designs. Boeing said the spacious cabin and the technology of the 787 enable an owner to design a beautiful environment that exactly meets preferences and needs. ‘Whether you are looking for a flying palace or a business office in the sky—or both, the possibilities are endless,’ Boeing said today.

such as sponsorship agreements between sponsoring brands and events. Participants were informed that each event had a unique sponsor. While no guise or cover story was used, participants were told they would later respond to questions about the event, but not warned that their memory for the event–sponsor pairings was to be subsequently tested. All participants then viewed 12 sponsorship announcements between a sponsoring brand and a fictitious event. The presentation order was randomized for each participant, as was the assignment of brands to conditions.

In the second study phase, we introduced information about competitor brands and also manipulated the likely inference that would be made by participants. Specifically, each participant was randomly exposed to: four press releases containing information about the competitor ambushing the event (competitor-event press releases); four press releases containing information about a competitor brand where no mention of the event was made (competitor-only press releases); and four press releases about filler brands not related to the sponsoring brands (no-competitor press releases). For half of the participants (Conditions 1 and 2), the four competitor-event press releases contained information making it clear that the competitor was not the sponsor (“not sponsor” inference likely) but for the remaining participants the information did not clearly suggest that the competitor was not the true sponsor (Conditions 3 and 4, “not sponsor” inference unlikely).

Following exposure to all press releases, test instructions then appeared on screen detailing the nature of the cued-recall test. Half of the participants (Conditions 1 and 3) were instructed to provide the name of the sponsor, given the event as the cue. The remaining participants (Conditions 2 and 4) were required to provide the name of the event, given the sponsor as the cue. An example was given to illustrate the requirements of the test. The cues were presented in a random order for each participant. After the presentation of a cue, participants were required to verbally respond before pressing the space bar to continue. The next cue then immediately appeared on the screen.

Results

For each cue, a two (“not sponsor” inference: likely vs. unlikely) \times three (nature of competitive mention: competitor-event; competitor-only; no-competitor) mixed ANOVA was conducted where *inference* was manipulated between subjects and *nature of competitive mention* within subjects. In addition, with the event cue we separately analyzed sponsor and competitor recall. Table 2 reports the means and standard deviations for each analysis.

Event Cue

When sponsor recall given the event as cue served as the dependent variable, there was no significant main effect of competitive mention, $F(2, 76) = 1.03, p = .36, MSE = .04, \text{partial } \eta^2 = .03$. Likewise, there was no significant main effect of inference, $F(1, 38) = .88, p = .35, MSE = .17, \text{partial } \eta^2 = .02$. The competitive mention by inference interaction did not reach significance, $F(2, 76) = 1.68, p = .19, MSE = .04, \text{partial } \eta^2 = .04$. This failure to find evidence for cue overload or classical associative interference is not alarming, since we have previously failed to find evidence for it (Cornwell et al., 2006). There are, however, at least three reasons why we do not wish to conclude that cue overload is not working in this situation. First, there is the sheer number and variety of previous findings on cue overload in similar situations. Second, when we examine intrusions, there is evidence for both cue overload and for it being moderated by a “not sponsor” inference. Finally, there is evidence from the condition where we had not expected an effect (cueing with the sponsor for the event) that something unexpected is happening.

When competitor recall given the event as cue served as the dependent variable, however, a significant main effect of inference was found, $F(1, 38) = 4.93, p = .03, MSE = .02, \text{partial } \eta^2 = .12$. Specifically, participants were less likely to recall the competitor given the event as cue when it was likely that a “not sponsor” inference had been made. There was also a significant main effect of competitive mention, $F(2, 76) = 19.13, p < .001, MSE = .02, \text{partial } \eta^2 = .34$, suggesting that competitive information subsequent to a sponsorship announcement can increase intrusion errors. These main effects were, however, qualified by a significant competitive mention by inference interaction, $F(2, 76) = 4.94, p = .01, MSE = .02, \text{partial } \eta^2 = .12$. Specifically, when the “not sponsor” inference was likely, there were fewer intrusion errors in the no-competitor condition ($M = .01, SD = .06$) than in the competitor-only condition ($M = .10, SD = .17$), $t = 2.23, p = .03, MSE = .04$. Similarly, there were fewer intrusion errors in the no-competitor condition than the competitor-event condition ($M = .10, SD = .15$), $t = 2.49, p = .02, MSE = .04$. Recall in the competitor-only and competitor-event conditions did not differ significantly from one another, $t = 0.00, p = 1.00, MSE = .05$. When the “not sponsor” inference was unlikely, there were no errors in the no-competitor condition. Because of the violation of the assumption about equal variances we conducted one-sample *t* tests where we compared the sample mean to zero. Again there were fewer intrusions in the no-competitor condition than in the competitor-only condition, $t(19) = 3.58, p = .002$ and in the

Table 2
Summary of Experiment 1 Results: Mean (SD) Recall Probabilities Across Experimental Conditions

Cue	Recall	“Not sponsor” inference	Competitor-event	Competitor only	No competitor
Event	Sponsor	Likely	.68 (.27)	.64 (.29)	.68 (.32)
Event	Sponsor	Unlikely	.51 (.31)	.63 (.29)	.64 (.25)
Event	Competitor	Likely	.10 (.15)	.10 (.17)	.01 (.06)
Event	Competitor	Unlikely	.26 (.17)	.14 (.17)	.00 (.00)
Sponsor	Event	Likely	.84 (.19)	.58 (.28)	.56 (.25)
Sponsor	Event	Unlikely	.75 (.24)	.51 (.30)	.54 (.28)

competitor-event condition, $t(19) = 6.84, p < .001$. In addition, there were significantly more intrusion errors in the competitor-event condition than in the competitor-only condition ($p = .01$).

Sponsor Cue

When event recall given the sponsor as cue served as the dependent variable, a main effect of competitive mention was found, $F(2, 76) = 23.35, p < .001, MSE = .04, \text{partial } \eta^2 = .38$. Follow-up pairwise comparisons revealed that participants were significantly more likely to recall the event given the sponsor as cue in the competitor-event condition than in the competitor-only condition ($p < .001$) and the no-competitor condition ($p < .001$), which did not significantly differ from each other ($p = .89$). There was no significant main effect of inference, $F(1, 38) = .76, p = .39, MSE = .05, \text{partial } \eta^2 = .02$, and no significant competitive mention by inference interaction, $F(2, 76) = .28, p = .75, MSE = .04, \text{partial } \eta^2 = .01$.

Discussion of Experiment 1

This first experiment established that any mention of the competitor increased the number of times the competitor intruded as a response while participants were trying to use the event as a cue for the sponsor. In addition, there was a main effect of inference: when it was unlikely that a study participant could make a "not sponsor" inference, competitor intrusions were higher. Presumably, our participants were sometimes recalling the competitor and then recalling the information about the competitor not being the sponsor. Once this extra information was recalled they would not produce the competitor as a response and may have continued trying to recall the sponsor.

Because there is no cue overload situation when we cue with the sponsor, we had anticipated finding no effect in this situation. To our surprise, event recall given the sponsor as the cue was better if a subsequent press release linked the competitor and the event. This finding suggests that the participants may at times have been recalling the correct sponsor when they read about a competitor being linked to a previously encountered event. This possibility is taken into consideration in the design of Experiment 2. Furthermore, the implication of this finding, along with the finding that a not sponsor inference moderated the probability of competitor recall, are important for our failure to find evidence for cue overload and will be discussed after Experiment 2.

Experiment 2

The primary limitation of Experiment 1 was that the information about the sponsor and about the ambushing attempt occurred in the same session. As we have suggested, there is some evidence that this may have resulted in the participants retrieving the name of the sponsor when they encountered information linking a competitor to a previously familiar event. Separation of the two occasions in Experiment 2 permitted us to manipulate the probability that such cross talk would occur. In addition, we used an explicit counter-ambushing paragraph to pass on the information that the competitor was not the sponsor. This provided for more flexibility in the design as we did not have to present the counter-ambushing information in the same paragraph where the ambushing informa-

tion was presented. In addition, it allowed us to generalize the results from Experiment 1 by using another way of presenting information about the competitor not being the sponsor. Thus Experiment 2 addresses our first two research questions:

1. Does ambushing by a competing brand damage sponsoring brands (i.e., through reduced sponsor recall and/or increased competitor recall) when consumers are *unaware* of the ambushing nature of such advertising tactics?
2. Does ambushing by a competing brand damage sponsoring brands event when consumers are *aware* of the ambushing nature of such advertising tactics?

Finally, as we indicated at the outset, it is frequently incumbent on event organizers to counter-ambushing attempts and this experiment allowed us to evaluate our third and fourth research questions:

3. Does counter-ambushing strategy benefit sponsoring brands (i.e., through improved sponsor recall and/or reduced competitor recall) in circumstances where consumers *have not* been exposed to the ambushing tactics?
4. Does counter-ambushing strategy benefit sponsoring brands in circumstances where consumers *have* been exposed to the ambushing tactics?

Method

Participants and Design

A unique sample of 99 participants was drawn from the same participant pool as those in Experiment 1. The sample included 54 women and 45 men ages 18 to 49 ($M = 21.96, SD = 5.15$). As illustrated in Figure 2, each participant was randomly assigned to one of four between-subjects conditions. Study order (i.e., study phase 2 and study phase 3) was manipulated between-subjects, as was type of test cue (sponsor/competitor cue vs. event cue). For those in the sponsor/competitor cue condition (Conditions 1 and 3), the sponsor and competitor cues were manipulated within subjects.

Materials

The 12 sponsor–competitor pairs used in Experiment 1 were increased to 16 pairs. In doing this some of the original pairs had to be dropped because of a perceived overlap with the product category of the new pairs. The sponsorship paragraphs were similar to the sponsorship paragraphs used in Experiment 1. In addition, two new paragraphs were created for each sponsor–competitor pair. "Ambiguous ambushing" releases linked a competitor to an event that had previously been linked to a sponsor, but made no mention of the fact that the competitor was not actually sponsoring the event. Counter-ambushing press releases were written from the point of view of event organizers and explained that the competitor was not the true sponsor of the event. See Table 3 for example paragraphs.

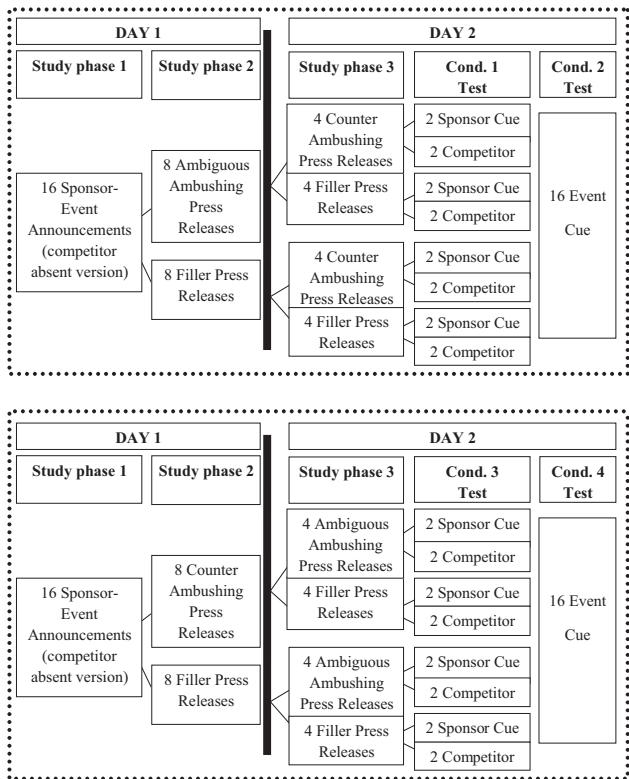


Figure 2. Manipulations employed in Experiment 2.

Procedure

As depicted in Figure 2, the experiment was conducted over 2 days and consisted of three study phases and one test phase. In study phase one on Day 1, all participants were told that they would be presented with a series of press releases about upcoming events. Again no guise was used but they were told they would be asked to answer questions, but not warned that their memory for the event–sponsor pairings would be tested. Sixteen sponsorship announcements were presented. After each announcement participants were asked to indicate, on a 5-point scale, how knowledgeable they were of the brand (1 = not knowledgeable to 5 = very knowledgeable) and how likely they would be to purchase the brand (1 = very unlikely to 5 = very likely). Relative to Experiment 1, it is likely that asking these questions reduced the probability that participants would expect a final memory test. Presentation order was randomized for all participants as was the assignment of paragraphs to conditions.

Study phase two and study phase three consisted of a total of 32 press releases (16 on Day 1 and 16 on Day 2). These releases included filler items (similar to Experiment 1) and also ambiguous ambushing and counter-ambushing press releases. The presentation order of ambiguous and counter-ambushing press releases differed between groups (see Figure 2 for details). For examples of the press release stimulus, see Table 3.

Following the study phase on Day 2, test instructions indicated to participants that they would receive a cued-recall test. Those participants in the sponsor–competitor cue group (Conditions 1 and 3) were asked to recall the event to the sponsor cue. Participants

were actually given eight sponsor cues and eight competitor cues (randomly ordered). In the event cue group (Conditions 2 and 4), participants were instructed to recall the sponsor to the event cue given. All participants were provided with an example of each relevant test procedure.

Results

A summary of results, including means and standard deviations, is provided in Tables 4a and 4b. The design is only partially crossed and some of the comparisons of interest are within subjects and others between subjects. Therefore, we conducted a series of planned comparisons. Specifically, for each cue (event, sponsor, and competitor), we conducted seven *t* tests. Three of these tests were concerned with examining order effects and were therefore between subjects. The tests compared performance in the counter-ambushing plus filler conditions, the ambushing plus filler conditions and the ambushing plus counter-ambushing conditions, when the message was presented on Day 1 as compared to when it was presented on Day 2. Note that in the ambushing plus counter-ambushing conditions, the comparison was between receiving the ambushing message on Day 1 and receiving it on Day 2. The remaining four tests were within-subjects and utilized data combined across groups, thereby collapsing across order. The first test compared performance in the ambushing plus filler conditions to performance in the ambushing plus counter-ambushing conditions. The next three tests involved comparisons with the filler conditions. Specifically, in three separate tests, performance in the filler conditions was compared to performance in the ambushing plus filler conditions, the counter-ambushing plus filler conditions and the ambushing plus counter-ambushing conditions. In addition to conducting separate analyses for each cue, we also conducted a separate analysis for correct recalls and for intrusions of the competitor when the event was used as the cue. These seven tests provide for a relatively thorough examination of the processes involved in this situation. However, the failure to find an effect needs to be interpreted cautiously. That is, there is the potential for two processes to be operating in many of these comparisons, which could result in a situation where the two processes largely cancel each other. Such cancellations should be detectable by the overall pattern of effects on the other tests.

Event Cue

Sponsor recall. Sponsor recall was significantly better when the ambushing paragraph occurred on Day 1, than when it occurred on Day 2, $t(42) = 2.06, p = .05, SEM = .08$. There was, however, no significant difference in sponsor recall according to whether the counter-ambushing paragraph occurred on Day 1 or Day 2, $t(42) = 1.08, p = .30, SEM = .08$. Next we looked at order effects when both an ambushing message and a counter-ambushing message were presented. There was no significant difference according to which message came first, $t(42) = 0.83, p = .41, SEM = .08$.

To see if the counter-ambushing message was successful in countering the effects of an ambushing message, the combined results from the ambushing plus filler conditions were compared to the combined results from the ambushing plus counter-ambushing conditions. Adding the counter-ambushing message did not significantly affect sponsor recall ($M = .22, SD = .28$) relative to the

Table 3
Sample Stimulus Materials Used in Experiment 2

Sponsorship announcement:

Today saw international surfing goods brand Billabong taking out a three-year sponsorship agreement with the new Pacific Surfing Contest. The contest will feature both amateur and professional events and is expected to attract surfers from all over the world. Billabong sees the Pacific Surfing Contest as the perfect opportunity to display their latest range of clothing, accessories, and wetsuits. Billabong says the event is purpose-built for marketing their products as items suited to surfing and beach culture.

Ambiguous ambushing attempt:

International surfing goods brand Quiksilver is offering its customers the chance to win tickets to the annual Pacific Surfing Contest by sending in two minute videos of themselves performing their best surfing trick. The winner will attend this year's much anticipated Pacific Surfing Contest, which is expected to attract both amateur and professional surfers from all over the world. Quiksilver views the competition as the perfect platform to connect with young people. "I think that this sort of activity connects with young people in a really entertaining way," Quiksilver's marketing manager said in a written statement today.

Counter-ambushing:

Event organizers for the much anticipated Pacific Surfing Contest today promised to crack down on brands attempting to establish or imply an association with the event, despite not seeing fit to pay a sponsorship fee. The warning comes amid accusations that non-sponsoring brand Quiksilver is attempting to cash in on the event by offering event tickets as prizes in its latest advertising campaign. Event organizers today said that Quiksilver's actions violated strict anti-ambushing regulations designed to protect the rights of sponsors. If convicted of falsely suggesting a link to the event, Quiksilver will face a hefty \$200,000 fine.

Filler:

Aerospace and defense corporation Boeing today unveiled concepts of luxury and comfort for the 787 VIP airplane. Described by company executives as the 'Ultimate Business Jet,' The VIP-configured 787 offers 260 square meters of cabin space and custom interior designs. Boeing said the spacious cabin and the technology of the 787 enable an owner to design a beautiful environment that exactly meets preferences and needs. 'Whether you are looking for a flying palace or a business office in the sky—or both, the possibilities are endless,' Boeing said today.

Note. In this scenario, the sponsoring brand is Billabong. The event sponsored is the Pacific Surfing Contest. Quiksilver is a competing brand which has not paid official sponsorship rights. Filler material uses the brand Boeing, which belongs to a different product category.

ambushing plus filler conditions ($M = .21$, $SD = .27$), $t(43) = 0.47$, $p = .64$, $SEM = .02$.

None of the comparisons with the filler conditions reached significance. The filler conditions ($M = .28$, $SD = .26$) did not differ from the ambushing conditions ($M = .21$, $SD = .27$), $t(43) = 1.76$, $p = .09$, $SEM = .05$, the counter-ambushing conditions ($M = .26$, $SD = .28$), $t(43) = 0.50$, $p = .62$, $SEM = .05$, or the ambushing plus counter-ambushing conditions ($M = .22$, $SD = .27$), $t(43) = 1.50$, $p = .14$, $SEM = .05$.

Competitor intrusions. An analysis of order effects in the counter-ambushing plus filler and ambushing plus filler conditions found that intrusions were more likely to occur if competitive mention had been made on Day 2, rather than on Day 1. Specifically, the occurrence of counter-ambushing on Day 2 resulted in significantly more intrusions ($M = .40$, $SD = .36$) to an event cue than when the counter-ambushing paragraph was presented on Day

1 ($M = .08$, $SD = .14$), $t(42) = 3.88$, $p < .001$, $SEM = .08$. The same pattern was seen in the ambushing plus filler condition, where Day 2 ambushing resulted in a greater number of intrusions ($M = .44$, $SD = .32$) than the presentation of an ambushing paragraph on Day 1 ($M = .19$, $SD = .23$), $t(42) = 2.99$, $p = .02$, $SEM = .08$. In regards to the counter-ambushing plus ambushing conditions, there was no significant difference in intrusions when the ambushing paragraph had been presented on Day 1 ($M = .60$, $SD = .31$) than on Day 2 ($M = .43$, $SD = .32$), $t(42) = 1.82$, $p = .08$, $SEM = .09$.

While the combined counter-ambushing plus ambushing conditions made no significant difference to sponsor recall when compared to the ambushing plus filler conditions, the number of intrusions did differ significantly between the two conditions. Specifically, intrusions were significantly more likely when participants were in the counter-ambushing plus ambushing condition

Table 4a
Experiment 2 Results: Mean (SD) Proportion of Both Intrusions and Correct Responses to an Event Cue

	Message							
	Counter		Ambushing		Counter + Ambushing			
	Day 1	Day 2	Day 1	Day 2	Ambushing day 1	Ambushing day 2	Filler	
Sponsor recall (correct)	.31 (.27)	.22 (.28)	.28 (.28)	.13 (.23)	.25 (.29)	.18 (.26)	.32 (.26)	.25 (.25)
Competitor recall (intrusion)	.08 (.14)	.40 (.36)	.19 (.23)	.44 (.32)	.60 (.31)	.43 (.32)	.00 (.00)	.00 (.00)

Note. Values given in bold and regular represent separate groups.

Table 4b

Experiment 2 Results: Mean (SD) Correct Event Recall Given Either a Sponsor or Competitor Cue

	Message							
	Counter		Ambushing		Counter + Ambushing		Filler	
	Day 1	Day 2	Day 1	Day 2	Ambushing day 1	Ambushing day 2		
Sponsor cue	.30 (.39)	.26 (.29)	.36 (.38)	.32 (.34)	.34 (.33)	.45 (.37)	.19 (.27)	.20 (.27)
Competitor cue	.27 (.40)	.34 (.38)	.24 (.32)	.38 (.40)	.53 (.42)	.46 (.38)	.07 (.16)	.09 (.18)

Note. Values given in bold and regular represent separate groups.

($M = .52$, $SD = .32$) rather than in the ambushing plus filler condition ($M = .32$, $SD = .30$), $t(43) = 3.66$, $p = .001$, $SEM = .05$. All of the comparisons with the filler conditions were significant such that intrusions were significantly more likely when participants were exposed to competitive mention than when they were not. The filler conditions ($M = .00$, $SD = .00$) contained fewer intrusions than the counter-ambushing conditions ($M = .24$, $SD = .31$), $t(43) = 5.05$, $p < .001$, $SEM = .05$, the ambushing conditions ($M = .32$, $SD = .30$), $t(43) = 6.99$, $p < .001$, $SEM = .05$ and the counter-ambushing plus ambushing conditions ($M = .52$, $SD = .32$), $t(43) = 10.69$, $p < .001$, $SEM = .05$.

Sponsor Cue

When participants were recalling the event to a sponsor cue, no significant effects of order were found. In particular, event recall did not differ significantly between groups who received the ambushing paragraph on Day 1 ($M = .36$, $SD = .38$) rather than on Day 2 ($M = .32$, $SD = .34$), $t(55) = 0.43$, $p = .67$, $SEM = .10$, or between a Day 1 counter-ambushing occurrence ($M = .30$, $SD = .39$) and a Day 2 occurrence ($M = .26$, $SD = .29$), $t(55) = 0.49$, $p = .62$, $SEM = .09$. In the counter-ambushing plus ambushing conditions, there was a tendency for improved event recall when the ambushing paragraph occurred on Day 2 ($M = .45$, $SD = .37$) than on Day 1 ($M = .34$, $SD = .33$), however this was not significant, $t(55) = 1.10$, $p = .28$, $SEM = .09$.

The addition of a counter-ambushing paragraph to the presentation of an ambushing paragraph collapsed across order ($M = .40$, $SD = .35$) made no significant change to event recall when compared to the ambushing plus filler conditions ($M = .34$, $SD = .36$), $t(56) = 0.88$, $p = .38$, $SEM = .06$. The filler conditions ($M = .20$, $SD = .28$) resulted in significantly less event recall than either the counter-ambushing plus ambushing conditions, $t(56) = 4.33$, $p < .001$, $SEM = .05$ or the ambushing plus filler conditions, $t(56) = 2.98$, $p = .004$, $SEM = .05$. However, event recall did not differ significantly between the filler conditions and the counter-ambushing conditions ($M = .28$, $SD = .34$), $t(56) = 1.80$, $p = .08$, $SEM = .05$.

Competitor Cue

The order in which participants received ambushing or counter-ambushing paragraphs made no significant difference to their recall of the event given the competitor cue. Specifically, there was no significant change in event recall if participants had studied an ambushing paragraph on Day 1 ($M = .24$, $SD = .32$) compared to

Day 2 ($M = .38$, $SD = .40$), $t(55) = 1.40$, $p = .17$, $SEM = .13$, or if they received a counter-ambushing paragraph on Day 1 ($M = .27$, $SD = .40$) or on Day 2 ($M = .34$, $SD = .38$), $t(55) = .75$, $p = .46$, $SEM = .10$. There was also no significant difference in event recall in the counter-ambushing plus ambushing conditions when the ambushing paragraph occurred on Day 1 ($M = .53$, $SD = .42$) rather than on Day 2 ($M = .46$, $SD = .38$), $t(55) = 0.66$, $p = .51$, $SEM = .11$. However, the counter-ambushing plus ambushing conditions did produce significantly more event recall ($M = .50$, $SD = .40$) than the ambushing plus filler conditions ($M = .31$, $SD = .36$), $t(56) = 3.31$, $p = .002$, $SEM = .06$. This is expected because there are two paragraphs supporting a competitor-event link in the ambushing plus counter-ambushing conditions whereas there is only one paragraph in the ambushing plus filler conditions.

Correct event recall was significantly more likely when participants had received messages including competitive mention than in the filler conditions. The filler conditions ($M = .08$, $SD = .18$) resulted in poorer event recall than the counter-ambushing conditions ($M = .31$, $SD = .39$), $t(56) = 4.41$, $p < .001$, $SEM = .05$, the ambushing conditions ($M = .31$, $SD = .36$), $t(56) = 4.41$, $p < .001$, $SEM = .05$, and the counter-ambushing plus ambushing conditions ($M = .50$, $SD = .40$), $t(56) = 7.22$, $p < .001$, $SEM = .06$.

Discussion of Experiment 2

The most striking finding was that any message that linked the competitor to the event increased competitor intrusions given the event as a cue and increased event recall given the competitor as a cue. These effects were moderated by whether the ambushing or counter-ambushing paragraph occurred on Day 1 or on Day 2. These order effects will be addressed in detail in the General Discussion. For now it suffices to note that ambushing attempts, where a competitor is linked to the event, can be very effective for the ambusher. Furthermore, it appears that counter-ambushing attempts which link the competitor to the event are very dangerous for the true sponsor. As in Experiment 1, the presence of a message about a competitor had very little effect on sponsor recall given the event as a cue. A clue as to what is going on here can be found in the fact that messages naming the event (ambushing and counter-ambushing messages) tended to increase event recall given the sponsor as a cue. We address this in the next section.

General Discussion

In both experiments, the presence of an ambushing message by the competitor had very little effect on sponsor recall given the

event as a cue. This lack of change in sponsor recall stands in contrast to some large changes in competitor intrusions. It is true that an increase in intrusions can be a more sensitive indicator of interference (cue overload) than a decrease in correct recall (Teahan & Humphreys, 1996). Nevertheless, the discrepancies found in these experiments require explanation. We think that such an explanation can be found by examining event recall given the sponsor as cue. We had not anticipated finding interference in this situation because it does not involve a cue overload (only one event is subsumed under the sponsor cue). In Experiment 1, event recall is better following the paragraphs which link the competitor to the event, regardless of whether the paragraph allows for a "not sponsor" inference. Likewise, in Experiment 2, event recall is better following the counter-ambushing paragraph and the ambushing paragraph, than in the filler conditions. The common feature shared in these situations is the presence of an event mention in the message. This provides a cue for the retrieval of the sponsor. Thus, the observed level of event recall given the sponsor as a cue is arguably due to the opposing effects of an interference effect and of a practice effect.

Although the existence of this practice effect complicates the interpretation of recall involving the sponsor, there is no problem interpreting recall involving the competitor. Any message that links the competitor to the event increases competitor intrusions given the event as cue and increases event recall given the competitor as cue. These effects involving the competitor are moderated by the likelihood of a "not sponsor" inference in Experiment 1 and by order effects in Experiment 2. In Experiment 1, competitor intrusions are reduced in the condition where a "not sponsor" inference is likely. Thus, participants will use this information if it is stored and retrieved. However, to explain the order effects in Experiment 2, it is necessary to assume that in some conditions the "not sponsor" inference is not retrieved even when it could be. The ambushing paragraph was ambiguous about whether the competitor was or was not the sponsor. When it is presented on Day 1 it is more likely that participants will recall the correct sponsor than when it is presented on Day 2. Recalling the correct sponsor and noting that the competitor is not the sponsor would suppress competitor intrusions as in the "inference likely" condition of Experiment 1. However, the counter-ambushing paragraph explicitly tells the participant that the competitor is not the sponsor. Furthermore, this information should be easier to recall when the counter-ambushing paragraph occurs on Day 2 (shorter retention interval) than when it occurs on Day 1.

The finding that competitor intrusions are greater when the counter-ambushing message occurs on Day 2 than on Day 1 and the filler message occurs on the other day contradicts our original hypothesis about gist memories ("not sponsor" information) being forgotten more quickly than non gist memories (the event competitor link). What appears to be happening is that our participants believe that they can answer the question, *Who is the sponsor of event X?*, by retrieving the answer from memory. They do not believe that they need to retrieve additional information about either the event or the brand. In keeping with our analysis of Underwood's (1983) work, they use the event cue they are provided, the Day 1 context, and the brand concept to retrieve the sponsor. Following an ambushing or counter-ambushing paragraph, the event cue is linked to both the sponsor and the competitor, however, it may not be linked or not strongly linked to the

"not sponsor" inference or information. In addition, the "not sponsor" information is not a brand. Under these conditions (a good contextual cue, a weak event cue, and a disconfirming brand cue), the "not sponsor" inference or information is likely to be retrieved. Under the same conditions the competitor is strongly linked to the event cue, strongly linked to the Day 1 context and it is a brand. Thus both the competitor and the "not sponsor" information should be easy to recall. However, competitor recall will be reduced because of the recall of the "not sponsor" information.

When the "not sponsor" information is presented or inferred on Day 2 it is unlikely to be retrieved because it will be linked to the Day 2 context not the Day 1 context. That is, there is a weak event cue, a weak contextual cue, and a disconfirming brand cue. Under the same conditions the competitor is more likely to be retrieved because there is a strong event cue, a weak contextual cue, and it is a brand. Thus, an analysis in terms of the cues that are used can predict the higher levels of competitor intrusions when a filler paragraph on Day 1 is followed by either a counter-ambushing or ambushing paragraph on Day 2 than when the filler paragraph occurs on Day 2. There is no need to postulate any difference in the retention rate for gist and nongist information.

In addition, this analysis predicts that the highest level of intrusions will occur when the ambushing paragraph is followed by the counter-ambushing paragraph. That is, the presentation of both messages strengthens the event-competitor link as compared to the presentation of just one message. Furthermore, this ordering should produce the lowest probability of linking "not sponsor" information or inference to the Day 1 context. The counter-ambushing paragraph explicitly provides the "not sponsor" information so when it occurs first this information will become linked to the Day 1 context. However, before a "not sponsor" inference can be made to the ambushing paragraph, the participant must use the event to retrieve the true sponsor. This makes the storage of "not sponsor" information following an ambushing paragraph less likely than the storage of such information following a counter-ambushing paragraph. Note that the lower probability of storing "not sponsor" information on Day 2 does not matter because this information is linked to the Day 2 context not the Day 1 context. The expected consequence is that "not sponsor" information is more likely to be associated with the Day 1 context when the counter-ambushing paragraph occurs on Day 1 than when the ambushing paragraph occurs on Day 1. The prediction that follows is that competitor intrusions will be greater when the ambushing paragraph occurs on Day 1 than when the counter-ambushing paragraph occurs on Day 1. To test this prediction we combined the results over the two conditions where an ambushing paragraph is presented on Day 1 and the two conditions where a counter-ambushing paragraph is presented on Day 1. The difference in intrusions in the combined Day 1 ambushing conditions (ambushing plus filler and ambushing plus counter-ambushing) ($M = .40$, $SD = .22$) relative to the combined Day 1 counter-ambushing conditions (counter-ambushing plus filler and counter-ambushing plus ambushing) ($M = .26$, $SD = .16$) was significant, $t(42) = 2.42$, $p = .02$, $SEM = .06$.

Implications for Practice and Limitations of the Research

While firms and event sponsors may have to take a policing role in terms of ambush marketing, their communications decisions should be carefully considered. Directly stemming from these

results is a warning that counter-ambushing communications may have the unintended effect of creating or strengthening a link between the ambusher and the event. Explaining that an ambushing competitor is not the sponsor may offer clarification for some, however, it may not be preferred to the option of doing nothing.

There is also a second major implication for practice. If ambush marketing is construed as a legitimate marketing practice, as several researchers argue (Hoek & Gendall, 2002; Meenaghan, 1996), then we have demonstrated that this technique is valuable when your goal is to link your brand to an event that you have not sponsored. The important caveats here are that we have not investigated the affective response to the ambusher nor have we investigated the situation where the ambushing brand is not similar to one of the sponsoring brands. Further research on these topics is warranted. With regard to affective response, some individuals may be less fooled by an ambush attempt than others and may respond negatively to ambushing activities. Detection of ambushing—particularly by a regular attendee or fan of an event—may result in negative consequences for the ambushing brand. Feelings of animosity or suspicion of illegal activity may be aroused by individuals who recognize the ambusher as a nonsponsor.

There are many questions whose answers might determine a firm's response to an ambushing situation. Perhaps the most important is how much damage will be caused if a competitor's name becomes linked to an event the firm is sponsoring. After all, we have not found a reduction in event recall given the sponsor as a cue and we found only a nonsignificant reduction in sponsor recall given the event as a cue. Thus the question of damage becomes how much damage is produced by an increase in competitor intrusions given the event as a cue and an increase in event recall given the competitor as a cue. There will undoubtedly be some damage as some groups of fans are known to be loyal to the brands that sponsor their favorite event (Pruitt, Cornwell, & Clark, 2004). A closely related question is whether a more positive communications approach in response to and even preempting ambushing may be preferable to the more heavy handed tactic of "naming and shaming" or threatening legal action. That is, campaigns aimed at reinforcing the sponsor's credibility by leveraging the nature and strength of the sponsorship association, and education on the effects of ambushing generally, may be a more effective strategy than use of counter communications. Support for this suggestion can be found in research on corrective advertising which suggests moderating effects of source reputation and explanation of the transgression to limit generalized carryover effects on the responding brand (Darke et al., 2008).

The current research is also silent on the role individual factors may play in response to both ambushing and counter-ambushing strategies. For example, personal involvement with an event or sport has been shown to significantly influence sponsorship outcomes (for a review of this and other individual factors that may influence sponsorship response see Cornwell, Weeks, & Roy, 2005). Individuals with high felt involvement for a sport or event may feel more resentment toward ambushers or be more likely to seek out or attend to information regarding ambushing activities. While involvement was most likely not influential in the results of the current study because of the use of novel events and the repeated measures across several event types, it may be in single event or sport field studies of attendees or fans.

Various other individual factors such as interpretation and appreciation of humor may be of importance, although they were not

the focus of the current research. As mentioned previously, individuals respond differently to humor attempts in marketing communications and much of ambushing is humorous (Cline et al., 2003). For example, some found the 2002 Vodafone "streakers" at a Rugby match to be pushing boundaries, meanwhile, analysts argued that because the act matched their "in-your-face" brand values that it only enhanced their image among their target audience (Robson, 2002). Other individual variables that might play a role in receptivity or memory for ambushing attempts include event or product category involvement, past experience with the brand, and attitudes toward commercialization.

There are several aspects of the learning conditions we employed that future researchers may want to vary. We arranged conditions so our participants would pay attention to the messages, messages were presented only once, and all of the sponsorship messages occurred on Day 1. The occurrence of the sponsorship messages on Day 1 was probably critical for the large recency effects that we observed. That is, we think that it was instrumental in inducing our participants to use the Day 1 context which in turn caused them to fail to recall the not sponsor information presented on Day 2. If this is correct then the recency effect should be reduced or even eliminated if sponsorship messages occurred on both days. Low levels of attention, coupled with multiple distributed presentations, are likely to produce strong but de-contextualized memories for sponsor-event relationships (Humphreys, Murray, & Maguire, 2009). Under these conditions the cues used for retrieval will partially change but the cueing analysis we have outlined may still be applicable.

Although the materials used here take the perspective of event organizers in communicating counter-ambushing messages, the results should generalize to most communications that explain ambushing attempts and include reference to the event and the ambushing competitor. For example, behaviors by the true sponsor or the event organizer may result in media coverage of ambushing attempts that would work similarly to controlled ambushing counter communications but without the control. If spectators wearing rival competitor T-shirts are ousted from the event and this ouster is covered in the news, it would typically include information linking the event and ambusher. Communications of this type may, therefore, do more to cement the relationship between the competitor and event than to correct any misperceptions of true sponsorship rights. Because control of these communications is in the hands of the media, the competitor may be mentioned several times, as may the event, and if the story is popular, variations of it in the media may come out over several days resulting in repeated, spaced exposures. This scenario is especially relevant to the viral nature of Internet news and chat forums receptive to particularly creative, humorous or even entertaining brand wars arising around popular events.

While the role of source reputation was not tested by our research, future research examining counter communications by a third party such as a sporting regulatory entity would be worthwhile. The current research also did not address attitudes resulting from ambushing attempts. Theoretical arguments have been put forward to suggest that awareness of ambushing attempts results in a negative attitude toward ambushers (Dalakas et al., 2008) on the other hand, amusing or humorous ambushing attempts may appreciated and viewed positively. Moreover, insight into the impact of a variety of counter-ambush responses, ranging from harsh reactions (e.g., legal action) to ambushing education and sponsorship leveraging, or silence, would also be valuable directions for future research.

References

- Alba, J. W., & Hasher, L. (1983). Is memory schematic? *Psychological Bulletin*, 93, 203–231.
- Appleton-Knapp, S. L., Bjork, R. A., & Wickens, T. D. (2005). Examining the spacing effect in advertising: Encoding variability, retrieval processes, and their interaction. *Journal of Consumer Research*, 32, 266–276.
- Barnes, J. M., & Underwood, B. J. (1959). Fate of first-list associations in transfer theory. *Journal of Experimental Psychology*, 58, 97–105.
- Clancy, K. J., & Trout, J. (2002). Brand confusion. *Harvard Business Review*, 80, 22.
- Cline, T. W., Altsech, M. B., & Kellaris, J. J. (2003). When does humor enhance or inhibit ad responses? *Journal of Advertising*, 23, 31–45.
- Cornwell, T. B., Humphreys, M. S., Maguire, A. M., Weeks, C. S., & Tellegen, C. (2006). Sponsorship-linked marketing: The role of articulation in memory. *Journal of Consumer Research*, 33, 312–321.
- Cornwell, T. B., Roy, D. P., & Steinard, E. A. (2001). Exploring managers' perceptions of the impact of sponsorship on brand equity. *Journal of Advertising*, 30, 41–51.
- Cornwell, T. B., Weeks, C. S., & Roy, D. (2005). Sponsorship-linked marketing: Opening the blackbox. *Journal of Advertising*, 34, 23–45.
- Dalakas, V., Madrigal, R., & Burton, R. (2008). Understanding ambush marketing: Implications from information processing. In L. R. Kahle & C. Riley (Eds.), *Sports marketing and the psychology of marketing communications* (pp. 293–306). Mahwah, NJ: Erlbaum and Associates.
- Darke, P. R., Ashworth, L., & Ritchie, R. J. B. (2008). Damage from corrective advertising: Causes and cures. *Journal of Marketing*, 72, 81–97.
- Davies, J. A. (2008). *The Olympic Games effect: How sports marketing builds strong brands*. Singapore: Wiley and Sons (Asia) Pty Ltd.
- Eich, J. M. (1982). A composite holographic associative recall model. *Psychological Review*, 89, 627–661.
- Graham, P. J. (1994). *Ambush marketing: An American perspective*. Paper presented at the Third Annual Conference on Sports Marketing Law, Tax, and Finance.
- Hoek, J., & Gendall, P. (2002). Direct-to-consumer advertising down under: An alternative perspective and regulatory framework. *Journal of Public Policy and Marketing*, 21, 202–212.
- Hoek, J., Gendall, P., Fox, M. F., & Erceg, N. (1997). Beliefs and behaviour: The use of survey evidence in deceptive advertising cases. *Marketing bulletin-Department of Marketing Massey University*, 8, 1–14.
- Humphreys, M. S., Bain, J. D., & Pike, R. (1989). Different ways to cue a coherent memory system: A theory for episodic, semantic, and procedural tasks. *Psychological Review*, 96, 208–233.
- Humphreys, M. S., Murray, K. L., & Maguire, A. M. (2009). Contexts and control operations used in accessing list-specific, generalized, and semantic memories. *Cognitive Psychology*, 58, 311–337.
- IEG. (2007). Decision-maker survey: Sponsors report activation budgets have never been higher. *IEG Sponsorship Report*, 26, 1–4.
- Janiszewski, C., Noel, H., & Sawyer, A. G. (2003). A meta-analysis of the spacing effect in verbal learning: Implications for research on advertising repetition and consumer memory. *Journal of Consumer Research*, 30, 138–149.
- Johar, V., & Pham, M. T. (1999). Relatedness, prominence and constructive sponsor identification. *Journal of Marketing Research*, 36, 299–312.
- Keller, K. L. (1993). Conceptualizing, measuring and managing customer-based brand equity. *Journal of Marketing*, 57, 1–22.
- Kinney, L., & McDaniel, S. R. (1996). Strategic implications of attitude-toward-the ad in leveraging event sponsorships. *Journal of Sport Management*, 10, 250–261.
- Landauer, T. K., & Dumais, S. T. (1997). A solution to Plato's problem: The latent semantic analysis theory of acquisition, induction, and representation of knowledge. *Psychological Review*, 104, 211–240.
- Maguire, A. M. (2005). *False alarms in episodic recognition: An examination of base-rate, similarity-based, and comprehensive theories*. Unpublished doctoral dissertation, University of Queensland, Australia.
- McDaniel, S. R., & Kinney, L. (1994). *Ambush marketing revisited: An experimental study of perceived sponsorship effects on brand awareness, attitude toward the brand and purchase intention*. Paper presented at the Association for Education in Journalism and Mass Communication.
- McKelvey, S., & Grady, J. (2008). Sponsorship program protection strategies for special sports events: Are event organizers outmaneuvering ambush marketers. *Journal of Sport Management*, 22, 550–586.
- Meenaghan, T. (1996). Ambush marketing: A threat to corporate sponsorship? *Sloan Management Review*, 38, 103–113.
- Michaelis, M., Woisetschläger, D. M., & Hartleb, V. (2008). An empirical comparison of ambushing and sponsorship effects: The case of 2006 FIFA World Cup Germany. *Advances in Consumer Research*, 35, 527–533.
- Miller, R. V. (2008). *Miller's Annotated Trade Practices Act* (28 Ed.). Sydney: Thompson.
- O'Sullivan, P., & Murphy, P. (1998). Ambush Marketing Issues. *Psychology and Marketing*, 15, 349–366.
- Postman, L., & Keppel, G. (1977). Conditions of cumulative proactive interference. *Journal of Experimental Psychology: General*, 106, 376–403.
- Pruitt, S., Cornwell, T. B., & Clark, J. (2004). The NASCAR phenomenon: Auto racing sponsorships and shareholder wealth. *Journal of Advertising Research*, 44, 281–296.
- Reder, L. M., & Kusbit, G. W. (1991). Locus of the Moses illusion: Imperfect encoding, retrieval, or match? *Journal of Memory and Language*, 30, 385–406.
- Robson, T. (2002, August 15). Free exposure worth \$100,000. *The Dominion Post*, Business Section, 1.
- Sandler, D. M., & Shani, D. (1989). Olympic sponsorship vs. "ambush" marketing: Who gets the gold? *Journal of Advertising Research*, 29, 9–14.
- Sandler, D. M., & Shani, D. (1993). Sponsorship and the Olympic Games: The consumer perspective. *Sport Marketing Quarterly*, 2, 38–43.
- Shani, D., & Sandler, D. M. (1998). Ambush marketing: Is confusion to blame for the flickering of the flame? *Psychology and Marketing*, 15, 367–383.
- Stotlar, D. K. (1993). Sponsorship and the Olympic Winter Games. *Sport Marketing Quarterly*, 2, 35–43.
- Tehan, G., & Humphreys, M. S. (1996). Cueing effects in short-term recall. *Memory & Cognition*, 24, 719–732.
- Underwood, B. J. (1983). Conceptual similarity and cumulative proactive inhibition. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 9, 456–461.
- Watkins, O. C., & Watkins, M. J. (1975). Buildup of proactive inhibition as a cue-overload effect. *Journal of Experimental Psychology: Human Learning and Memory*, 104, 442–452.
- Weeks, C. S., Humphreys, M. S., & Hockley, W. E. (2007). Buffered forgetting: When targets and distractors are both forgotten. *Memory & Cognition*, 35, 1267–1282.

Received March 18, 2009
 Revision received September 21, 2009
 Accepted October 1, 2009 ■