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MEASURING EVENT–BRAND CONGRUENCE

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Event–brand congruence is crucial for the success of event marketing and sponsorship. However, a number of different approaches to measure the construct have been used. Additionally, there is no agreement on the main drivers of global congruence judgments. The present research addresses these issues. Results show that measuring global congruence with either single-item or multiple-item measures leads to different results and interpretations. Semantic differentials appear to be least suited in this respect. Regarding single-items measures, reasons pro and con their use are identified. Moreover, results show that image-based, functional-based, and user-based congruence should be considered jointly as important antecedents of global event–brand congruence.

Key words: Congruence; Event marketing; Event sponsorship

Introduction

From a commercial perspective, events aim to realize two major corporate objectives. One objective is to realize profit by staging events as a service provider (what we term profit-oriented events). This is the case when companies hold festivals, open air concerts, or sport events in order to sell this platform to different target groups such as visitors, media, or sponsors. As a second objective, events can be used as a communication tool to increase awareness or to positively influence the image of specific brands (what we term communication-oriented events). In this respect, two types can be distinguished, namely event sponsorship (Cornwell & Maignan, 1998) and event marketing (Drengner, Gaus, & Jahn, 2008). While communication in event sponsorships focuses on events organized by third parties (e.g., the Olympic Games organized by the IOC), event marketing uses events that are organized by the respective company or a service provider (Drengner, Gaus, & Jahn, 2008). An example of event marketing is the worldwide competition "Red Bull Flugtag" organized by the energy drink brand Red Bull. With homemade human-powered flying machines participants jump off a ramp into a lake. There are several winning categories (e.g., longest jump, most original flying machine).

The congruence between events and the brands involved proved to be feasible for both of the event types mentioned above. Congruence—which has also been termed fit or similarity (Fleck & Quester, 2007)—can be defined as perceived simi-

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larity between brand attributes and event attributes (McDaniel, 1999).

Research on communication-oriented events (for event sponsorship, see Cornwell, Humphreys, Maguire, Weeks, & Tellegen, 2006; Fleck & Quester, 2007; Koo, Quarterman & Flynn, 2006; Koo, Quarterman, & Jackson, 2006; Roy & Cornwell, 2003; Speed & Thompson, 2000; for event marketing, see Martensen, Gronholdt, Bendtsen, & Jensen, 2007) shows that event–brand congruence improves memory for the event–brand relationship and facilitates other aspects of communication success (e.g., image transfer, attitude toward the sponsor). A lack of congruence can reduce the event's credibility and, as a consequence, its communicative impact. A positive example of event–brand congruence is the Red Bull Flugtag mentioned above, where the brand is trying to get the message across that "Red Bull gives you wings." Regarding profit-oriented events, organizers not only compete for potential visitors but for sponsors that want to use the event for their communication strategy, too. As research on communication-oriented events shows, event–brand congruence is beneficial for sponsors, which leaves organizers that are able to stage an event that is congruent to potential sponsors an advantage over their competitors in attracting those sponsors.

From a provider's profit-oriented perspective we therefore give advice to attract sponsorship from companies by matching what those potential sponsors are looking for. For communication-oriented events an analysis of the event–brand congruence appears to be useful for both selecting the right event or event content as well as for examining the success of the communication.

The relevant literature offers several approaches to analyzing the congruence between events and brands, such as single-item global congruence measures (d'Astous & Bitz, 1995; Johar & Pham, 1999), multi-item global congruence measures (Barros & Silvestre, 2006; Fleck & Quester, 2007; Grohs, Wagner, & Vsetecka, 2004; Lafferty, 2007; Martensen et al., 2007; Roy & Cornwell, 2003; Speed & Thompson, 2000; Weeks, Cornwell & Drennan, 2008), image-based congruence measures (Gwinner & Eaton, 1999; Koo, Quarterman, & Flynn, 2006; Koo, Quarterman & Jackson, 2006; Musante, Milne, & McDonald 1999), functional-based congruence measures (Gwinner & Eaton, 1999), and user-based congruence measures (Sirgy, Lee, Johar, & Tidwell, 2008). However, the picture shown by these studies is blurred, possibly due to these different measurement approaches. Given the importance of congruence as outlined above, using the wrong method in the wrong situation could lead to inappropriate strategies.

Our research contributes to literature on event management, sponsorship, and event marketing in that it focuses on neglected methodological issues that might severely affect our knowledge of the subject. It sheds light on potential differences between approaches originally intended to measure the same underlying construct. The purpose of this article is to test whether the different approaches to measure congruence can be used interchangeably or whether different results occur. This article offers advice to researchers and managers for using feasible approaches in different situations.

This article is structured as follows. Existing literature is reviewed with regard to the relevance of congruence, different congruence types, and established measurement approaches. Subsequently, the viability of these approaches is tested with data collected at a large music festival.

Literature Review

The Relevance of Congruence

The rationale behind the importance of congruence for the success of communication-oriented events originates from two theories (Smith, 2004). The first one is associative network theory of how memory operates (Collins & Loftus, 1975). Briefly, it posits that memory consists of individual pieces of information called nodes. Information is recalled from memory when a node is stimulated by a process known as activation. The process whereby one set of nodes (e.g., memory about an event) prompts thinking about other "linked" nodes (e.g., sponsor of the event) is known as "spreading activation" (Anderson, 1983; Ulhaque & Bahn, 1992). Therefore, the more shared links exist between brand and event and the stronger those associations are, the greater is the perceived congruence between objects. This means that incongruent brand–event relationships have weaker links than

congruent relationships and, hence, memory for congruent relationships tends to be superior (Cornwell et al., 2006). That explains why congruence between event and brand positively influences brand awareness (Johar & Pham, 1999; Koo, Quarterman, & Flynn, 2006; Koo, Quarterman, & Jackson, 2006). Furthermore, it seems easier to reach an image transfer if associative connections already exist between both objects (Koo, Quarterman, & Flynn, 2006).

As a second way of explaining the impact of congruence, schema theory should be considered. A schema is a "cognitive structure that represents knowledge about a concept or type of stimulus including its attributes and relations among those attributes" (Fiske & Taylor, 1991, p. 98). The theory suggests that consumers have preconceived ideas of the brand involved in the sponsorship or event marketing (e.g., due to prior experience, corporate communication or word of mouth). Those ideas might also result from prior experience of attending events in person and/or viewing them on television (Jagre, Watson, & Watson, 2001). These schemas can also contain product categories that typically belong to a consumers' event experience (e.g., beer or snacks). As part of their event schema, consumers also acquire memory structures, containing brands or product categories that they associate with traditional sponsors or event marketers (McDaniel, 1999). Thus, a fit between brand and event is expected when an individual's knowledge of the brand is consistent with that of the event. For example, Nike sponsoring a sporting event or Mercedes Benz organizing a safe driving training course can be expected. On the contrary, a fit would not be expected when the relationship is inconsistent with existing knowledge structures and schemas such as General Electric sponsoring a sporting event or Coca-Cola organizing a safe driving training course.

The available research provides different answers as to which level of congruence yields most effectively a communication success. First of all, a very high degree of incongruence would require a change in consumers' cognitive structures and tends to generate negative response and frustration (d'Astous & Bitz, 1995). Some authors (Johar & Pham, 1999; Koo, Quarterman, & Flynn, 2006) show that high levels of congruence positively impact on various communication outcomes such as image transfer and awareness. In contrast, other research reports that information that is incongruent with prior expectations will result in individuals' engaging in having to make more effort to process the information and use more elaborate methods. This results in superior recall as well as more positive attitudes or images (d'Astous & Bitz, 1995; Jagre et al., 2001). In a situation of consistent fit between brand and event, viewers should not engage in elaborate processing. Moderate incongruity should result in the audience being surprised by the unexpected relationship which, in turn, would lead to the largest amount of elaboration and processing (Fleck & Quester, 2007). Therefore, moderate levels of congruence may be more effective than either very low or very high degrees of congruence.

Kardes, Cronlye, Kellaris, and Possavac (2004) shed light on the question about the discrepancy in the findings. When information load is high, belief-consistent information has a memory advantage, while belief-inconsistent information has a memory advantage when information load is low. Considering this idea against the background of events, situations with only a few brands involved combined with a straightforward event (e.g., homogenous target group, clear event content) could present a memory advantage to incongruent brands. In case of multiple sponsorships, however, expected relationships between event and sponsor may be more promising.

Types of Congruence

Beside the optimal level of overall congruence, it is noteworthy that different types of congruence between event and brand exist. Gwinner and colleagues (Gwinner, 1997; Gwinner & Eaton, 1999) distinguish (i) image-based congruence from (ii) functional-based congruence. Image-based congruence occurs if the image of the event is related to the image of the brand (e.g., BMW sponsoring the America's Cup with sporting and prestigious connotations). Functional-based congruence occurs when the brand is actually used in conjunction with the event (e.g., Adidas' street ball challenge where Adidas provides the equipment). In addition to these two types, we suggest a third

one, called (iii) user-based congruence. In this case both event users (e.g., visitors) and brand users (e.g., customers) are the same and therefore perceive a greater congruence between event and sponsor (e.g., *Rolling Stone* magazine as official sponsor of rock concerts).

Consumers' judgments of high overall event–brand congruence do not necessarily depend solely on one of these types. It is more likely that different types build the foundation of a global evaluation (e.g., Adidas sponsoring the FIFA World Championships with image-based and functional-based components). In other words, the different types may be interpreted as sources of global congruence judgments. Figure 1 illustrates this reasoning.

Approaches to Measure the Congruence Between Event and Brand

Profit-oriented organizers of events should be able to measure the congruence properly. This helps to convince potential sponsors that they are being offered the right event to be supported. Similar reasoning applies to companies that use communication-oriented events in order to enhance the communicative impact of their brands. Here, congruence may help a sponsor to decide if an event is suitable. In event marketing, congruence can be used to decide which content (e.g., sports or culture, which type of sports) is best suited for the event.

A look at the literature reveals that there are several approaches to measure congruence (see Fig. 1). The global approach measures an overall congruence using either a single indicator [global congruence 1 (GC1)] (d'Astous & Bitz, 1995; Johar & Pham, 1999) or multiple items. In the latter case, the items are formulated either as statements in Likert-type rating scales [global congruence 2 (GC2)] (Barros & Silvestre, 2006; Grohs et al., 2004; Martensen et al., 2007; McDaniel, 1999; Speed & Thompson, 2000) or as opposing adjectives in semantic differentials [global congruence 3 (GC3)] (Lafferty, 2007; Rifon, Choi, Trimble, & Li, 2004; Roy & Cornwell, 2003; Weeks et al., 2008). Because all three approaches intend to measure the same underlying construct (i.e., global congruence) their psychometric properties should be the same (Campbell & Fiske, 1959). However, previous research has shown that the different approaches (i.e., single-item measures, Likert scales, and semantic differentials) do not necessarily cover the same construct within a domain (Friborg, Martinussen, & Rosenvinge, 2006; Little, Lindenberger, & Nesselroade, 1999). Basically, it is more likely to capture the "true" core of a construct by

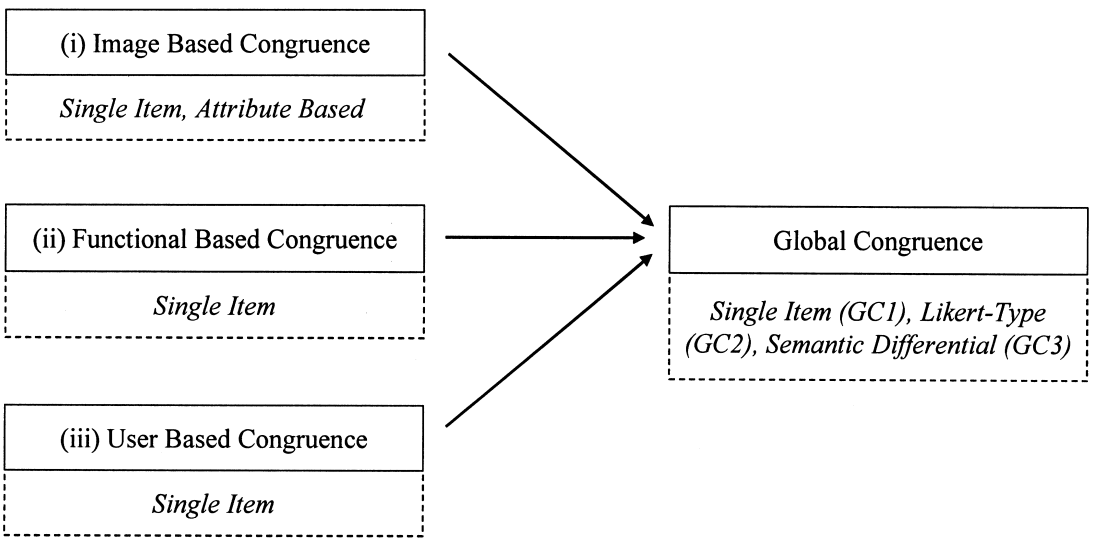

Figure 1. Different types of event–brand congruence and their measurement (measurement in italics).

using multiple items (Little et al., 1999). Thus, a single-item measure has to be very pinpointed, otherwise it will bias interpretation. This motivates our first proposition.

Proposition 1: Measuring global congruence with a single indicator will capture a construct within the global congruence domain that is related to but different from the construct measured with multiple indicators (either Likert scale or semantic differential). That is, the means of GC1 and GC2 (and GC3, respectively) are expected to differ.

The sources of such global congruence evaluations (i.e., image-based, functional-based, and user-based congruence) can be measured by direct statements. This approach has previously been used to measure image-based and functional-based congruence (Gwinner & Eaton, 1999; Koo, Quarterman, & Jackson, 2006) and should also apply to user-based congruence. In order to meaningfully target consumers' global event–brand congruence perceptions, it is useful to know which sources impact on the global evaluation and to what extent. However, the magnitude of the effect might differ as well, depending on the respective approach of measuring the dependent variable (i.e., global congruence). Thus, if proposition 1 is correct, management decisions inferred from research results may be dependent on the respective measurement approach. In other terms, proposition 2 is as follows.

Proposition 2: The different approaches to measure global congruence vary in accounting for the sources of congruence (i.e., image-based, functional-based, and user-based).

With regard to image-based congruence, instead of single-item measures it is more common to apply attribute-based measures (Koo, Quarterman, & Jackson, 2006). Here, the researcher generates attributes that are capable of characterizing both the event and the brand at the level of image-based congruence (Gwinner & Eaton, 1999; Koo, Quarterman & Flynn, 2006; Koo, Quarterman & Jackson, 2006; Musante et al., 1999). Computing an index from the absolute differences between the corresponding attributes in the event and brand rating allows assessing the congruence indirectly (Koo, Quarterman, & Flynn, 2006). However, research on service quality found that perception measures were clearly superior to computed difference measures in terms of model fit, effect size, absence of counterintuitive results, and parsimony (Dabholkar, Shepherd, & Thorpe, 2000). Thus, the single-item perception measure of image-based congruence is expected to be superior (in terms of model fit, effect size, absence of counterintuitive results, and parsimony) to a computed difference measure with regard to these criteria.

Proposition 3: When measuring image-based congruence, a single-item perception measure is superior to a computed attribute-based index.

Empirical Study

As subject of investigation we chose the Splash! festival. Splash! is Europe's biggest hip hop festival and has been held in Germany since 1997. The organizers not only present international top music acts to up to 20,000 visitors, but also cover other aspects of hip hop culture like graffiti, breakdancing, or skateboarding contests. From the organizers' perspective, the festival is a profit-oriented event that is financed by ticket sales (72.6%), sponsorship (17.9%), stall rental (5.4%), and merchandise items (4.1%).

Several brands use the event to communicate with the target group. In the subsequent analyses, the main sponsor of the festival represents the brand in the event–brand relationship. This brand is a beer–cola mix beverage that is available at the festival, well known to the visitors, and active in hip hop promotion over a longer period of time (e.g., name sponsor of a popular German Internet hip hop show).

Our analyses focus on assessing the congruence between this brand and the Splash! festival using the different approaches mentioned above.

We collected data on-site using a self-administered questionnaire during the last day of the 3-day festival. The exclusion of incomplete questionnaires and those of respondents who were not familiar with the sponsor brand resulted in a final sample of 108 visitors with a mean age of 21 years. Two thirds of the respondents were male, which reflects the distribution of the visitors. Because it is a hip hop festival, the target group con-

sisted of mostly male. On average, the respondents attended the festival for the 2.4th time which is why we assume them to be familiar with this event.

As shown in Table 1, we used items from existing studies (d'Astous & Bitz, 1995; Rifon et al., 2004; Roy & Cornwell, 2003; Speed & Thompson, 2000; Weeks et al., 2008). Every indicator was measured on a 5-point scale, where 1 represents very low congruence and 5 represents very high congruence. At the beginning of the questionnaire a filter variable ensured that only visitors that were familiar with the brand under examination evaluated the congruence. This is particularly important as unfamiliarity may bias the evaluation of similarity (Bijmolt, Wedel, Pieters, & DeSarbo, 1998), which in turn affects validity.

The single-indicator global evaluation (i.e., GC1) of the event–brand congruence was measured by evaluating the link between brand and event (d'Astous & Bitz, 1995). Respondents then had to evaluate the sources of this overall fit judgment. We used a filter to allow for adequate responses. Visitors who judged the global congruence to be medium or high (i.e., scale points 3–5) were asked to evaluate the possible sources of this fit [i.e., congruence types (i) to (iii)] on one indicator each. Respectively, respondents with a perceived low level of event–brand congruence (i.e., scale points 1 and 2) were asked to judge the sources of misfit. Multi-item measures of global congruence included five statements regarding the global congruence perception (i.e., GC2) (Speed & Thompson, 2000) and a semantic differential with five pairs of adjectives (i.e., GC3) (Rifon et al., 2004; Roy & Cornwell, 2003). The attribute-based measurement of image-based congruence was carried out using eight items each for the event and the brand (Gwinner & Eaton, 1999). These evaluations were distributed in different places on the questionnaire to avoid common method bias.

Results and Discussion

Global Congruence

Descriptive statistics and reliabilities for each measure appear in Table 1. The descriptive results show that the event-brand congruence is judged to be mediocre, irrespective of the measurement approach (individual scores ranging from 2.9 to 3.9). Alphas indicate good reliabilities for the two multi-item measures of global congruence (GC2: Cronbach's alpha = 0.74, GC3: alpha = 0.91). Thus, we calculate composite indexes for these variables to use them in the subsequent analyses by averaging the individual item scores. Table 2 provides means, standard deviations, and correlations between the different types of global congruence measures.

The three global congruence measures were compared by means of the 95% confidence interval (CI) of their mean difference (Cumming & Finch, 2005). Because measures are not independent, the CI is sensitive to the correlation between measures. First, the congruence value of the single-item measure (i.e., GC1) ($M_{GC1} = 3.58$) is compared with the multi-item Likert measure ($M_{GC2} = 3.31$). The mean difference is 0.27 and the 95% CI has a margin of error of 0.14.[1] Thus, the respective confidence interval is (0.13, 0.41). That is, the difference between GC1 and GC2 appears to be nonzero. The same is true for the difference between GC1 and GC3 ($M_{GC3} = 3.35$, mean difference ranging from 0.06 to 0.40). In contrast, a zero mean difference falls within the 95% CI of the GC2–GC3 difference (mean difference ranging from –0.08 to 0.16).

Results show that the mean scores assessed by multi-item measures (i.e., GC2 and GC3) do not differ while the single-item measure (i.e., GC1) is different from the remaining two. Given that multi-item measures are better able to include the true score of a construct (Little, Lindenberger, & Nesselroade, 1999), the single-item measure seems to inflate the congruence perception. When we additionally consider Cohen's effect size measure *d* (Cohen, Cohen, West, & Aiken, 2003), the effect size is either 0.23 (difference between GC1 and GC2) or 0.2 (difference between GC1 and GC3). According to Cohen (1992), values of 0.2 represent a small effect size but it is "not so small as to be trivial" (p. 156). Consequently, adhering to the single-item global congruence measure may raise the potential for ceiling effects (Friborg et al., 2006). In other words, there is the risk of nondetecting differences between respondents at very high levels of congruence. At the same time, there

Table 1
Congruence Measures and Their Means, SDs, and Reliabilities

Measures	Mean (SD)	Alpha
Global congruence		
Global congruence 1 (single indicator)		
I believe the link between [event] and [brand] is very strong/very weak.	3.58 (1.16)	
Global congruence 2 (multiple items with Likert-type rating scales)		0.909
There is a logical connection between [event] and [brand].	2.93 (1.16)	
The image of [event] and the image of [brand] are similar.[a]	3.10 (1.09)	
The sponsor and the event fit together well.	3.32 (1.15)	
The sponsor and the event stand for similar things.	3.26 (1.12)	
It makes sense to me that [brand] sponsors this event.	3.93 (1.07)	
Global congruence 3 (multiple items with semantic differential)		0.879
Well suited/poorly suited	3.47 (1.20)	
Well-matched/poorly matched	3.45 (1.20)	
Logical/illogical	3.19 (1.17)	
Compatible/not compatible	3.64 (1.28)	
Congruent/not congruent	3.00 (1.19)	
Sources of global congruence (congruence types)		
Image-based congruence[b]		
[Event] and [brand] fit together well due to their having the same image.[c]	3.45 (0.85)	
[Event] and [brand] poorly fit together due to their having different images.[d,e]	2.10 (0.79)	
Functional-based congruence[b]		
[Event] and [brand] fit together well because beverages like [brand] are useful at the festival.[c]	3.92 (0.91)	
[Event] and [brand] poorly fit together because beverages like [brand] are not useful at the festival.[d,e]	2.23 (0.92)	
User-based congruence[b]		
[Event] and [brand] fit together well because [brand] matches people attending the festival.[c]	3.56 (1.02)	
[Event] and [brand] poorly fit together because [brand] does not match people attending the festival.[d,e]	2.00 (0.86)	
Image-based congruence using attributes (event)		0.743
[Event] is . . . untrustworthy[e]	3.99 (1.14)	
[Event] is . . . boring[e]	4.57 (0.80)	
[Event] is . . . stands for hip hop	4.63 (0.70)	
[Event] is . . . stands for a good party	4.52 (0.80)	
[Event] is . . . youthful	4.04 (0.90)	
[Event] is . . . cool	4.40 (0.76)	
[Event] is . . . fun	4.56 (0.57)	
[Event] is . . . ordinary[e]	3.85 (0.97)	
Image-based congruence using attributes (brand)		0.878
[Brand] is . . . untrustworthy[e]	3.28 (1.21)	
[Brand] is . . . boring[e]	3.48 (1.16)	
[Brand] is . . . stands for hip hop	2.87 (1.22)	
[Brand] is . . . stands for a good party	3.33 (1.18)	
[Brand] is . . . youthful	3.66 (0.99)	
[Brand] is . . . cool	3.27 (1.05)	
[Brand] is . . . fun	3.39 (1.13)	
[Brand] is . . . ordinary[e]	3.11 (1.18)	

[a]Item is removed from the index in the regression analyses, with a resulting mean = 3.36, SD = 0.96.
[b]The (weighted) means and SDs of image-based congruence, functional-based congruence, and user-based congruence (i.e., including 94 ratings of the high-fit category and 14 ratings of the low-fit category) are $M_{IBC} = 3.19$, $SD_{IBC} = 0.99$; $M_{FBC} = 3.62$, $SD_{FBC} = 1.12$; $M_{UBC} = 3.26$, $SD_{UBC} = 1.17$, respectively.
[c]Item formulation in the high-fit category ($n = 94$).
[d]Item formulation in the low-fit category ($n = 14$).
[e]Item formulation was reversed.

Table 2
Means, SDs, and Correlations of Global Congruence Measures

	Mean (SD)	GC1	GC2	GC3
Global congruence 1 (GC1)	3.58 (1.16)			
Global congruence 2 (GC2)	3.31 (0.96)	0.763		
Global congruence 3 (GC3)	3.35 (0.99)	0.660	0.784	

appear no substantial differences between the two multi-item measures in support of the notion that these approaches are better able to capture the true construct (Little et al., 1999). All results offer strong support for proposition P1 (i.e., a single-item measure of global congruence will capture a slightly different construct within the congruence domain than do multi-item measures).

Sources of Global Congruence

Before inspecting the three global congruence measures' ability to account for the three sources of global congruence (i.e., P2), these sources themselves shall be considered in more detail. Highest congruence perceptions are achieved for functional-based congruence ($M_{FBC} = 3.62$) (see notes in Table 1). Both image-based congruence ($M_{IBC} = 3.19$) and user-based congruence ($M_{UBC} = 3.26$) are evaluated less high, but indicate fit rather than nonfit.

If image-based, functional-based, and user-based congruence are valid sources of overall congruence perceptions, a good measure of global congruence should meet a number of requirements in multiple regression analysis. These requirements are (a) a significant omnibus effect (i.e., *F*-test), (b) significant targeted effects (i.e., significant coefficients in multiple regression analysis for all three independent variables), and (c) individual effect sizes (i.e., individual standardized regression coefficients) that are reasonably high for each independent variable (Cohen et al., 2003). In case that all measures meet these requirements, the measure closest to the "true score" of the construct would be the one with the strongest omnibus effect size (i.e., highest R^2 value) (Cohen, 1992; Cohen et al., 2003).

Considering the aforementioned requirements, one can see from Table 3 that requirements (a) to (c) are met for all three models. Regarding GC1, the largest influences exert functional-based congruence ($\beta = 0.386$, $p < .001$) and user-based congruence ($\beta = 0.349$, $p < 0.001$). However, measuring the congruence with either Likert-type scales (i.e., GC2) or semantic differential (i.e., GC3), image-based congruence ($\beta = 0.437$ and $\beta = 0.340$, respectively, $p < 0.001$) turns out to have the strongest impact on overall congruence.[2] Thus, the effect size of the different congruence types to influence global congruence perceptions depends on the respective measurement approach. As the variance inflation factor (VIF) for each variable is smaller than 10 (highest VIF observed is 1.8), multicollinearity seems to be no problem (Hair, Black, Babin, Andferson, & Tatham., 2006).

Because requirements are met for all three global congruence measures, the adjusted R^2s are used to determine which measure is best predicted by the set of independent variables (i.e., referring to the amount of variance explained by the set of independent variables). Although adjusted R^2s are quite high for all three models, the highest R^2 can be observed for model 2. Hence, the multi-item Likert measure GC2 can be considered being the most appropriate ($R^2 = 0.66$), with the single-item measure GC1 being in close distance ($R^2 = 0.64$), and the semantic differential measure GC3 falling somewhat behind ($R^2 = 0.56$). In conclusion, all three measures of global congruence appear to adequately account for the three sources of global congruence. However, differences do still exist. First, the three congruence types explain least variance of the semantic differential measure while R^2s for the remaining two measures were similar. Second, image-based congruence is the best predictor of both the Likert measure and the semantic differential measure with a comparably small effect on the single-item measure. Only user-based congruence yields similar standardized regression coefficients across global congruence measures. Thus, the implications derived from regression analyses may differ depending on the measurement approach used. Summarizing, proposition P2 (i.e., the different approaches to measure global congruence vary in accounting for the sources of congruence) is partially supported. Although there do occur dif-

Table 3
Regression Results I

Independent Variables	VIF	Dependent Variables: Global Congruence 1 (Model 1)	Global Congruence 2 (Model 2)	Global Congruence 3 (Model 3)
Image-based congruence	1.7	0.220*	0.437*	0.340*
Functional-based congruence	1.6	0.386*	0.185*	0.280*
User-based congruence	1.8	0.349*	0.341*	0.284*
R^2 (adjusted)		0.638	0.662	0.562
F		63.80*	70.95*	46.65*

VIF: variance inflation factor. Standardized regression coefficients are reported.
*Significant at the 0.01 level.

ferences, they are not that severe to be contradictory.

Measures of Image-Based Congruence

Besides measuring image-based congruence directly by means of a single item, attribute-based measures are used, additionally. Descriptive statistics in Table 1 show that attributes fit the event reasonably well (ratings ranging from 3.85 to 4.63) but do not really fit the sponsor brand (ratings ranging from 2.87 to 3.66). With respect to the analyzed image attributes there is a mediocre fit between event and brand, as can be inferred by eye. Moreover, the beer–cola mix beverage under examination seems to have an unclear brand image based on the festival's image as reflected by the higher standard deviations.

Because the attribute-based measures of event image and sponsor brand image have high reliabilities (Cronbach's alphas are 0.74 and 0.88, respectively), we calculate an attribute-based composite index. Therefore, we first compute the differences between event and brand attribute ratings for each item with possible scores ranging from 0 (perfect fit) to 4 (zero fit). Secondly, the resulting absolute difference scores of the eight items are averaged. To make this index more easily interpretable, we transform the index scores by subtracting each score from 5; that is to say a final score of 5 means very high image-based congruence whereas a score of 1 means very low image-based congruence. The attribute-based composite index mean of 3.7 indicates a reasonable fit.

However, correlational analyses of this index with the direct measure of image fit yields a correlation of only 0.42 ($p < 0.01$). The different approaches yet again behave differently. Because both measures of image-based congruence differ, we assess which approach is a better predictor of global fit judgments. Regressing GC1 to GC3 on the single-item and attribute-based index, in all three cases the direct image fit measure is a better predictor of global congruence (in terms of standardized regression coefficients and partial effect size f^2) than its attribute-based counterpart.[3] Table 4 gives an overview of these results. In addition, the computation of differences between event and brand image ratings seems to inflate the congruence score. For example, perceiving the event as "cool" (which means a "4" in a 5-point scale) and the sponsor brand as "uncool" (a "2") indicates medium congruence when the score is computed [the transformation equation is $5 - (4 - 2) = 3$]. Following this idea, one could question whether such a constellation really means "medium fit." If a sponsor brand of a "cool" event was perceived as "uncool," the sponsor shouldn't expect too much from this investment. In fact, the congruence appears to be rather low. A direct perception measure is able to express this misfit more elegantly. In conclusion, the single-item perception measure is superior to the computed attribute-based index in terms of model fit, effect size, and parsimony. In addition, the attribute-based index may be more prone to produce counterintuitive results (see example above). Thus, results support

Table 4
Regression Results II

Independent Variables	VIF	Dependent Variables: Global Congruence 1	Global Congruence 2	Global Congruence 3
Image-based congruence (single-item measure)	1.2	0.489*	0.592*	0.523*
Image-based congruence (attribute-based index)	1.2	0.318*	0.341*	0.289*
R^2 (adjusted)		0.461	0.627	0.473
F		46.67*	91.05*	49.04*
f^2 (single-item measure)		0.36	0.78	0.42
f^2 (attribute-based index)		0.15	0.25	0.12

VIF: variance inflation factor. Standardized regression coefficients are reported.
*Significant at the 0.01 level.

proposition P3 stating that a single-item perception measure is superior to a computed attribute-based index.

Conclusion

The support of proposition P1 and at least partial support of proposition P2 suggests that researchers and decision makers interested in knowing whether a sponsor brand fits the event or event content should be aware of the selected measurement approach. Not only single-item and multi-item measures differ with regard to interpreting consumers' global congruence judgments and their respective sources. There appear to be differences between scale formats (i.e., Likert-type statements, semantic differential), too. Regarding the latter, measuring global fit with Likert-type scales (i.e., GC2) results in higher shares of explained variance in all regressions, compared to using semantic differentials. Considering that semantic differentials bear the risk of being skewed (Hair, Bush, & Ortinau, 2006) the Likert-type format seems preferable.

However, from a practical point of view, it is better to use single-item measures (Bergkvist & Rossiter, 2007). As Bergkvist and Rossiter (2007) argue, in case of concrete singular objects it is sufficient to use a single item. The evaluation of brand–event congruence can be considered concrete singular (Rossiter, 2002), thus legitimizing the use of GC1. Results of the present study show, however, that the content captured by a single item may be different from the true construct within a domain of related constructs (Little et al., 1999). Interpreting this global congruence score raises the potential for ceiling effects (Friborg et al., 2006). More conservative analyses may protect managers from faulty investments based on overly confident expectations (which themselves are a result of inflated congruence scores). In addition, advanced techniques such as structural equation modeling are designed for the use of multiple indicators. Thus, we recommend using at least three indicators to measure global congruence, preferably in Likert format. Regarding the three congruence types (i.e., image-based, functional-based, and user-based) single-item measures are less problematic as the construct domain is smaller and more concrete. However, if parsimony is less critical, multi-item measures in Likert format are favorable.

Regarding proposition P3, the difference in image-based measures is based on the varying modes of action of both approaches. Direct image judgments are performed at a rather holistic level where each respondent uses his or her own images of the evaluated objects. The attribute-based measurement builds on given images that have to be judged. If the chosen attributes do not fully represent the images of the evaluated objects, results of the indirectly calculated congruence might be biased. Medium correlations of both approaches ($r = 0.42$) indicate that the chosen attributes were not perfectly suited to describe the images of the beer–cola mix beverage and the festival. This is a common problem as the chosen attributes must fit

both the event and the brand. This, however, results in compromises and, thus, poorer measures. As a consequence, comparing image attributes is useful to detect image deficits, but not to assess image congruence. Generally speaking, several authors argue that such difference scores should not be used (Peter, Churchill, & Brown, 1993; Sirgy et al., 1997).

In addition to the methodological discussion, this research shows that image-based congruence, functional-based congruence, and user-based congruence are useful predictors of global congruence judgments. However, deciding for the congruence type that is the most important source of global congruence depends on the measurement approach. User-based congruence is consistently the second best predictor of global congruence, irrespective of the method used to measure global congruence.

To summarize, the present article addresses theoretical and methodological issues that contribute to the improvement of future event research. However, validating the present results in different contexts and with larger samples helps to understand more deeply the complex interconnections between measurement approaches and congruence types.

Notes

[1]The formulas needed to calculate the margin of error for cases with paired data can be found in Cumming and Finch (2005, p. 176, pp. 170–171). In simple words, it is a function of each mean's standard error (SE = SD/\sqr\n), the confidence level (C = 0.95), a critical t value [$t_{(n-1,\ C)} = 1.98$), and the correlation of both mean scores.

[2]The Speed and Thompson (2000) measure contains an item that refers to image similarity between event and brand. We removed this item from the composite index used in the regression analyses, thus ruling out a biased estimation of the image-based congruence slope. Please note that the global congruence mean is only minimally affected by this removal (see Table 1).

[3]Likewise, F-values, R^2, and regression coefficients are higher for the single-item perception measure when six single regressions are performed and compared (i.e., using either the single item or the attribute-based index as independent variable).

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