

MARKETING MANAGEMENT JOURNAL

VOLUME 25
Issue 2
Fall 2015

Artificial Emotions Among Salespeople: Understanding the Impact of Surface Acting

Jessica Mikeska, G. Alexander Hamwi, Scott B. Friend, Brian N. Rutherford and Jungkun Park

Eat with Your Eyes: Package Color Influences the Perceptions of Food Taste and Healthiness Moderated by External Eating

Lei Huang and Ji Lu

Examining the Relationship Between Star Player Characteristics and Brand Equity In Professional Sport Teams

N. David Pifer, Jennifer Y. Mak, Won-Yul Bae, and James J. Zhang

Brand Spillover Effects within a Sponsor Portfolio: The Interaction of Image Congruence and Portfolio Size

Joe Cobbs, Mark Groza, Gregg Rich

Advertising Interference: Factors Affecting Attention To Super Bowl Advertisements and Their Effectiveness

Mya Pronschinske Groza

Segmenting Sporting Event Audiences for Increased Sponsorship Effectiveness

Dennis A. Pitta, Velitchka D. Kaltcheva, Anthony D. Patino and Richard C. Leventhal

ARTIFICIAL EMOTIONS AMONG SALESPEOPLE: UNDERSTANDING THE IMPACT OF SURFACE ACTING

JESSICA MIKESKA, Indiana State University

G. ALEXANDER HAMWI, Missouri State University

SCOTT B. FRIEND, Miami University

BRIAN N. RUTHERFORD, Kennesaw State University

JUNGKUN PARK, University of Houston

Given the importance of salesperson satisfaction and commitment, managers are vested in understanding what variables impact salesperson attitudes. Surface acting, the process by which the employee regulates emotional expression, tends to produce internal tension which can reduce satisfaction and commitment. This impact is relevant in the sales role because emotional display rules change as salespeople span boundaries and because garnering customer commitments through sales presentations can involve faking emotions. Utilizing structural equation modeling, a surface acting model among 235 salespeople is tested. The authors find that surface acting inhibits job satisfaction, as well as suggest social support may offset the harm surface acting poses to organizational commitment. Furthermore, results indicate that training salespeople to internalize others' emotions (i.e., self-monitoring) increases the success at authentic displays, thus reducing the negative feelings that spill over into feelings about the job.

INTRODUCTION

Companies incorporate Hochschild's notion of the "managed heart" when they call on employees to exhibit forced niceness and phony smiles and to suppress anger. In these cases, employee training manuals urge clerks to express concern to customers, make their voices warm and friendly, and prevent the showing of frustration and impatience. Some companies even monitor employee interactions with customers and reward individuals who put their personal feelings aside. (Mumby & Putnam, 1992, p. 472)

Research indicates reduced turnover and improved performance are functions of managing job satisfaction and organizational commitment (Parasuraman & Futrell, 1983; Pettijohn, Pettijohn, & Taylor, 2009; Schwepker, 2001). Research from the management discipline finds that surface acting, the process by which the employee regulates emotional expression (Hochschild, 1983), creates negative organizational

outcomes (Diefendorff, Erickson, Grandey, & Dahling, 2011), negative employee attitudes (e.g., Pugliesi, 1999), and customer feelings of unmet goals (e.g., Butler et al., 2003). The internal tension that can ensue as a result of surface acting (Baumeister, Vohs, & Tice, 2007; Hochschild, 1983; Pugliesi, 1999) is the mechanism which harms the employee and creates negative outcomes.

While these relationships have been studied among frontline employees (e.g., Diefendorff & Gosserand, 2005; Grandey, 2003; Groth, Hennig-Thurau, & Walsh, 2009), this literature stream excludes salespeople. Yet, research shows surface acting is common in sales careers. In fact, surface acting occurs most regularly among salespeople (Brotheridge & Grandey, 2002) and has been shown to improve sales performance (Barsade & Gibson, 2007). However, surface acting has also been shown to adversely influence a salesperson's attitudes and behaviors (Kidwell, Hardesty, Murtha, & Sheng, 2011). The inauthenticity of faking a smile or empathy, for example, when interacting with a customer creates discomfort for the salesperson, and is proposed in this research to spill over into discomfort with the role (i.e., reduced job satisfaction) and employer (i.e., reduced organizational commitment). These counterbalancing

principles warrant further investigation in the sales and sales management domain.

This research develops a model of salesperson surface acting, with emotion monitoring skills and workplace support as antecedents. The study proposes that the process of surface acting is a workplace social comparison that creates feelings of inauthenticity when unsuccessful. Further, the theoretical model suggests that training salespeople for emotion monitoring skills allows the salesperson to internalize others' emotions, increasing the success at acting authentically and, in turn, reducing the likelihood of harmful outcomes to the organization. As a result, this study offers three key contributions.

First, the process of surface acting among salespeople is likely to be different than that of frontline employees. In addition to the frequency with which an employee perceives the need to surface act, prior research has also established that the quality of surface acting is likely to differ across types of roles (e.g., Brotheridge & Grandey, 2002; Cordes & Dougherty, 1993). This may be because unlike other frontline employees, a primary role of salespeople is to generate revenue. Prior research finds the salesperson's presentation of emotions, depending on the perceived level of authenticity, leads to either positive or negative customer impressions of the firm (Hennig-Thurau, Groth, Paul, & Gremler, 2006; Pugliesi, 1999). Because the salesperson is often the customer's only impression of the firm (Bitner, Booms, & Tetreault, 1990), a great proclivity to surface act exists in the personal selling role.

Salespeople also span more organizational boundaries than other frontline employees (Walker, Churchill, & Ford, 1975). The variability within these multiple interactions cause salespeople to tailor emotional displays to many different stakeholders, such as customers, colleagues across divisions, vendors, sales managers, marketing teams, and engineer teams. Thus, it should not be assumed that the surface acting process of frontline employees is the same as that of salespeople considering the sharp differences between these two roles. Extending frontline employee models of surface acting to the selling context is important

for understanding the boundaries or extensions of surface acting concepts.

Second, greater understanding of how the selling process promotes surface acting among salespeople offers sales managers new tools for offsetting and preventing the detrimental outcomes associated with emotional suppression. Our research proposes that training salespeople to self-monitor emotions can foster job satisfaction and organizational commitment through increased authenticity. Unique to the selling process, self-monitoring allows a salesperson to internalize others', such as consumers', emotions, thereby reducing the need to suppress emotions and act in an inauthentic manner. Thus, incorporating this skill into a surface acting model offers scholars and managers a better understanding of the antecedents of this harmful process and, in turn, the malleable skills and abilities to prevent it.

Third, the surface acting process offers a unique theoretical link between display rules and emotional states, potentially providing a more meaningful explanation about how satisfaction and commitment ensue. Aside from a select few studies, such as Krush, Agnihotri, Trainor, and Krishnakumar's (2013) assessment of the salesperson resiliency-job satisfaction relationship, research mostly focuses on state-like, emotionally-based antecedents to job satisfaction and organizational commitment, such as emotional exhaustion and dissonance (Abraham, 1999; Babakus, Cravens, Johnston, & Moncrief, 1999). Surface acting offers managers a unique avenue for understanding the process through which these outcomes occur. Testing this process is important because prior research describes the relationship between job satisfaction and many of its antecedents as equivocal (e.g., Singh, 1998).

LITERATURE REVIEW

Surface Acting

Salespeople participate in essential and frequent customer interactions as a requisite of their job. Such interactions often include workplace acting, such as the salesperson faking a smile or displaying an artificial good mood. Characterized as the organization's form of emotion control (Brotheridge & Grandey,

2002), display rules involve the presentation of positive emotions to customers in order to reflect well on the organization and produce positive customer outcomes. These display rules encourage surface acting, which Hochschild (1983) defines as the process by which the employee regulates emotional expression. Surface acting involves the “pushing down” of one’s true emotions (Grandey, 1998), which results in a state of misalignment and reduced well-being (Sheldon, Ryan, Rawsthorne, & Ilardi, 1997). This is because the reduced sense of authenticity surface acting facilitates (Brotheridge & Lee, 2002) leads to internal tension that, in turn, often leads salespeople to negatively appraise their role and their organization. Holistically, research finds the undesirable impact of salesperson inauthentic displays and the suppression of feelings have greater resource costs than antecedent-focused emotion regulation (Richards & Gross, 1999).

One could anticipate some benefits to salesperson surface acting, such as enhanced performance and customer satisfaction. However, research predominately finds that surface acting has an adverse impact on employees. This is especially true when the customer becomes aware of the surface acting behavior. When acting is perceived to be inauthentic by the consumer, surface acting leads to a negative change in customer affect (Hennig-Thurau et al., 2006) and decreased consumer perception of the employee’s customer orientation (Groth et al., 2009). The key to understanding the perils of surface acting is the acknowledgement that employees cannot successfully surface act all of the time (Ashforth & Tomiuk, 2000).

For example, given that salespeople are so important to customer impressions (Bitner, Booms, & Tetreault, 1990), the salesperson’s positive emotional expressions can lead to rewarding customer reactions (Pugliesi, 1999). Yet, because research establishes it as unrealistic for individuals to always internalize workplace emotions (Ashforth & Tomiuk, 2000), surface acting simultaneously creates internal tension (Baumeister, Vohs, & Tice, 2007; Hochschild, 1983; Pugliesi, 1999). The internal tension created by inauthenticity (i.e., unsuccessful surface acting) materializes into

stress (Grandey, 2003), reduced job satisfaction (Grandey, 2003; Kinman, 2009), emotional numbing (Totterdell & Holman, 2003), psychological distress (Kinman, 2009), burnout (Mikolajczak, Menil, & Luminet, 2007), and burnout’s dimension of emotional exhaustion specifically (Grandey, 2003).

Social Comparison Theory

Researchers believe workplace social comparisons often prompt salesperson behaviors (e.g., Palmer & Pickett, 1999), such as surface acting. Specifically, salespeople surface act so that emotional expressions satisfactorily fit the social norms of the organization (i.e., display rules). Thus, surface acting may best be explained via social comparison theory. Festinger (1954) articulates this theory as the individual’s comfort with like-minded groups. Social comparison theory suggests that the desire to fit-in encourages the development of reference groups for emotional expression (Festinger, 1954). Individuals continuously assess their attitudes, feelings, and beliefs, feeling uncomfortable when this assessment renders them different from their reference groups. In the sales context, discomfort is prevalent because of the salesperson’s many reference groups with conflicting expectations for social displays (e.g., customers, supervisors, vendors). Thus, social comparison theory provides a strong theoretical framework for explaining the adverse influences of surface acting and the mitigating influences of social reference group (i.e., social support) and social skill (i.e. self-monitoring) variables.

HYPOTHESIS DEVELOPMENT

The Impact of Surface Acting on Job Satisfaction

Locke (1976) conceptualizes job satisfaction as the salesperson’s positive or negative feelings about their job based on needs and expectancies. Otherwise stated, this construct is a match or mismatch resulting from either a positive or negative assessment of one’s job. Satisfaction is a widely researched construct in sales literature examining emotions (e.g., Park & Deitz, 2006), largely because boundary spanning roles are often characterized by job

anxiety (Fry, Futrell, Parasuraman, & Chmielewski, 1986; Sumrall & Sebastianelli, 1999).

The personal selling context should intensify the negative relationship between surface acting and job satisfaction found among frontline employees in prior research (e.g., Diefendorff et al., 2011). The boundary spanning role of the salesperson involves variations in display rules across parties beyond the firm's boundaries and, thus, surface acting. This variation leads the salesperson to not only display emotions tailored for each party, but may also lead to more difficulty in convincing the party that the display is authentic (i.e., increased customer recognition of faking) since prior research establishes surface acting is difficult to consistently attempt successfully (Ashforth & Tomiuk, 2000).

Diefendorff and colleagues (2011) find surface acting emotions are inversely related to job satisfaction, but research has yet to test this relationship among salespeople. Schaefer and Pettijohn (2006) do find a negative relationship between salespeople acting in an inauthentic manner and salespeople who find selling rewarding and satisfying. Further, Kinman (2009) finds that emotional faking leads to reduced levels of job satisfaction among salespeople. While these two studies test relationships involving inauthentic displays and emotional faking, extensions can be made based on their conceptual similarity to surface acting. To help theoretically make this extension, social comparison theory predicts one way the salesperson will appraise the job will be through comparing the personal ability to match felt emotions to those expected for each reference group. This matching is rarely successful (Ashforth & Tomiuk, 2000) and often creates negative feelings in salespeople (McFarland, 2003), thus leading to dissatisfaction when surface acting occurs.

H₁: Salesperson surface acting is negatively associated with job satisfaction.

The Impact of Self-Monitoring on Surface Acting and Job Satisfaction

Salespeople are understood to be incapable of successfully presenting fake emotions (i.e., surface acting) in a way that is perceived as authentic all of the time (Ashforth & Tomiuk, 2000). As such, tools available to the employee that reduce the need to suppress felt emotions and display inauthentic emotions in the workplace are important for fostering job satisfaction and avoiding negative feelings (e.g., internal tension, burnout, detachment). This is especially true for salespeople because such boundary spanning roles confront many expectations for workplace emotional displays that vary greatly across management, colleagues, and customers (Walker et al., 1975). One such tool is self-monitoring. Snyder (1974) defines self-monitoring as the individual's ability to manage expressive behavior so as to match the expression and display of others in social situations.

Those with the ability to monitor their emotions in a way that successfully matches expressed emotions to their audiences' displayed emotions will be more successful at surface acting than those without this ability. While matching another's emotions is acting, self-interpretation of such emotions involves an internalization processes. Riggio and Friedman (1982) explicate this distinction by explaining that self-monitoring is bi-dimensional and involves both acting and other-directedness. Individuals with high ability to self-monitor emotions are socially sensitive and able to internalize the emotions of others. Thus, it is not that high self-monitors will surface act relatively less often, but rather that they will be relatively more successful at the internalization process involved in surface acting. This success reduces the likelihood of the negative feelings that can ensue after surface acting (e.g., psychological distress, internal tension, burnout).

Abraham (1999) finds a negative interaction between frontline employee self-monitoring and dissonance, the negative feeling that occurs when felt emotions do not match the surface acted emotions. This interaction offers additional evidence of self-monitoring holding an ability to counter negative surface acting

feelings. Furthermore, recent research finds that salespeople able to regulate emotions based on the evaluation of feelings of others are less likely to experience interpersonal conflict (Mulki, Jaramillo, Goad, & Rivera, 2015). It is the multitude of stakeholders and varying expectations for emotional displays that makes acting authentic especially difficult for salespeople. However, as social comparison theory would predict, it is hypothesized that self-monitoring acts as a salesperson tool for managing the desired fit between internal emotions and socially interpreted emotions offered by reference groups, thus reducing the need to suppress emotions.

H₂: Salesperson self-monitoring is negatively associated with surface acting.

In addition to reducing the discomfort surface acting creates, Abraham (1999) also finds that monitoring one's emotional displays leads to job satisfaction. The salesperson's ability to use self-monitoring to avoid emotional suppression counters internal tension and facilitates job satisfaction. In fact, research examining salespeople finds the ability to manage emotions is critical in the sales culture. Rozell, Pettijohn, and Parker (2006, p. 121) find that the ability to manage emotions is a skill that allows salespeople to "thrive in the emotionally charged 'topsy-turvy' world of professional selling."

Self-monitoring can influence job satisfaction in several ways. Self-monitoring leads to more internal comfort (i.e., reduced negative feelings, positive interactions) (Mulki et al., 2015). Also, the other-directedness dimension of self-monitoring allows the salesperson to effectively internalize, rather than suppress, emotions so as to avoid the negative feelings of discomfort and tension (Riggio & Friedman, 1982). Thus, social comparison theory posits that individuals feel most comfortable when their attitudes or feelings align with their social reference groups and self-monitoring facilitates this alignment and comfort.

H₃: Salesperson self-monitoring is (a) positively associated with job satisfaction and (b) the positive relationship between self-monitoring

and job satisfaction is partially mediated by salesperson surface acting.

The Impact of Surface Acting on Organizational Commitment

Mowday, Steers, and Porter (1979, p. 226) define organizational commitment as "the relative strength of an individual's identification with and involvement in a particular organization." Research supporting the negative impact of surface acting emotions on organizational commitment is limited among frontline employee research and absent among sales employee research. However, research does suggest surface acting emotions indirectly inhibit frontline employee organizational commitment through feelings of detachment (Bolton & Boyd, 2003; Brotheridge & Grandey, 2002; Lee & Ashforth, 1996).

Prior research describes detachment as occurring when an employee gives up on organizational resources after unsuccessful surface acting (e.g., Bolton & Boyd, 2003; Hochschild, 1983). Hochschild (1983, p. 198) articulates detachment from the organization as occurring when surface acting transforms feelings into a relationship for the organization which "comes to belong more to the organization and less to the self." Similarly, Bolton and Boyd (2003, p. 298) find that such employees "draw upon social, rather than organizational, feeling rules" to restore order to the team. In essence, employees act so as to "take one for the team," but this involves depersonalization because to do so means detaching from their organization.

Extant literature has yet to test a relationship between surface acting and organizational commitment among frontline employees or salespeople. However, prior research does suggest that the workplace emotional processes which involve surface acting, such as emotional labor or burnout, lead employees to detach themselves from the organization because organizational resources do not ease the internal tension felt. This closely resembles a loss of organizational identity, a thinner version of organizational commitment (DeConinck, 2011). Organizational identity is "the individual's knowledge that he/she belongs to certain social

groups together with some emotional and value significance” (Tajfel, 1972, p. 292).

Sales literature examining emotions often emphasizes organizational commitment concepts because jobs which require the management of emotions tend to see heightened change in work attitudes (Ashkanasy & Daus, 2002). Specifically, Kidwell et al., (2011) find that emotional displays and suppression play a prevailing role in sales by influencing a salesperson’s attitudes and behaviors. Thus, it is reasonable to suggest that the detachment from the organization surface acting creates leads to a damaged organizational identity and, in turn, reduced commitment to the organization. Accordingly, social comparison theory predicts that the salesperson’s appraisal of poor fit between internal and external emotions will lead to an appraisal of a lack of salesperson fit with the organization.

H₄: Salesperson surface acting is negatively associated with organizational commitment.

The Impact of Social Support on Surface Acting, Organizational Commitment, and Job Satisfaction

House (1981) conceptualizes social support as an interpersonal transaction within the organization in which organizational members offer concern, aid, and information to an employee for improved emotional coping. Social support is a situational variable for reducing job-related stress (Abraham, 1998; Haines, Hurlbert, & Zimmer, 1991) and necessary for the personal selling role because surface acting is often a necessary part of the selling role. It is unreasonable for the organization to expect employees to be successful (i.e., achieve customer perceptions of authenticity) at surface acting all of the time (Ashforth & Tomiuk, 2000), especially considering varying expectations for salesperson emotional displays across firm boundaries. As such, failed attempts to act authentically can be detrimental to the salesperson (e.g., psychological distress, internal tension, burnout) and, thus, the organization (e.g., job dissatisfaction, lack of organizational commitment). Yet, prior research exploring social support’s ability to

prevent emotional suppression among salespeople is limited.

Prior research suggests social support facilitates a positive environment for frontline employees to learn what emotions are required in their frequent customer interactions (Gump & Kulik, 1997). Unfortunately, however, prior research has not tested the social support – surface acting relationship amongst salespeople. Frontline employee research does suggest that if a salesperson learns the rules for emotional expression through a high degree of social support, that is positive and supportive of workplace relationships, then the likelihood the salesperson also learns how to effectively internalize the emotions expressed should increase (Gump & Kulik, 1997). This reference group-supported learning environment improves the salesperson’s ability to match the emotional displays of others and, thus, reduces the need to suppress.

Abraham (1998, p. 239) further suggests that emotional support among co-workers may “reverse the deleterious effects” of emotional dissonance, the emotional state when acted feelings are not actually felt. She proposes this relationship based on Hochschild’s (1983) observations of frontline employees holding informal meetings to lift behavioral restraints by venting about the negative feelings of dealing with problem customers. Further, it seems reasonable that social support would counter negative feelings about the job given it is well established as reducing job-related stress (Abraham, 1998; Haines et al., 1991).

H₅: Social support available to the salesperson is negatively associated with surface acting.

Social comparison theory would predict that individuals who have social support feel aligned with some reference groups in a manner that masks or reduces the discomfort of not aligning with all reference groups of the organization, thus positively influencing organizational commitment. Employees who have supportive social relationships are thought to garner coping resources to deal with the discomfort associated with surface acting and are therefore less likely to experience work-related stress (Wharton & Erickson, 1993). In

turn, these supportive social relationships allow salespeople to internalize emotions when they learn they fit with the organization's culture and display rules. Additionally, prior research finds when support is present in the organization and among its members, salespeople are relatively more likely to experience multiple facets of commitment, including commitment to the organization (Fu, Bolander, & Jones, 2009). If a positive workplace environment with social support exists, the salesperson is likely to experience commitment to the organization through social alignment. Thus, this internalization process results in a reduced need for emotional suppression and an increase in commitment because salespeople are less likely to feel the discomfort and tension prompted by unsuccessful surface acting.

While social support should theoretically strengthen a salesperson's organizational commitment, this improved relationship with the organization is also likely to occur because of reduced emotional suppression. Those who are less able to internalize the emotions displayed during surface acting are relatively less likely to hold commitment toward the sales role (Schaefer & Pettijohn, 2006), positioning social support as a tool for attenuating surface acting's negative influence on the organization. Social support can facilitate internalization of others' emotions and, in turn, work to prevent the negative impact suppressing emotions has on organizational commitment. This mediated relationship is likely to be especially important to the sales role considering the need to internalize emotions of a multitude of audiences (Walker et al., 1975).

H₆: Social support available to the salesperson is (a) positively associated with organizational commitment and (b) the positive relationship between social support available to the salesperson and organizational commitment is partially mediated by salesperson surface acting.

Aside from organizational commitment, workplace social support is examined in prior research for greater insight into the alleviation of a host of negative emotions (e.g.,

Hochschild, 1983). Thus, the coping resources collected through social support should lead to positive job appraisal. Prior sales research confirms this relationship, showing that support in the organization and among its members is positively related to job satisfaction (Fu et al., 2009).

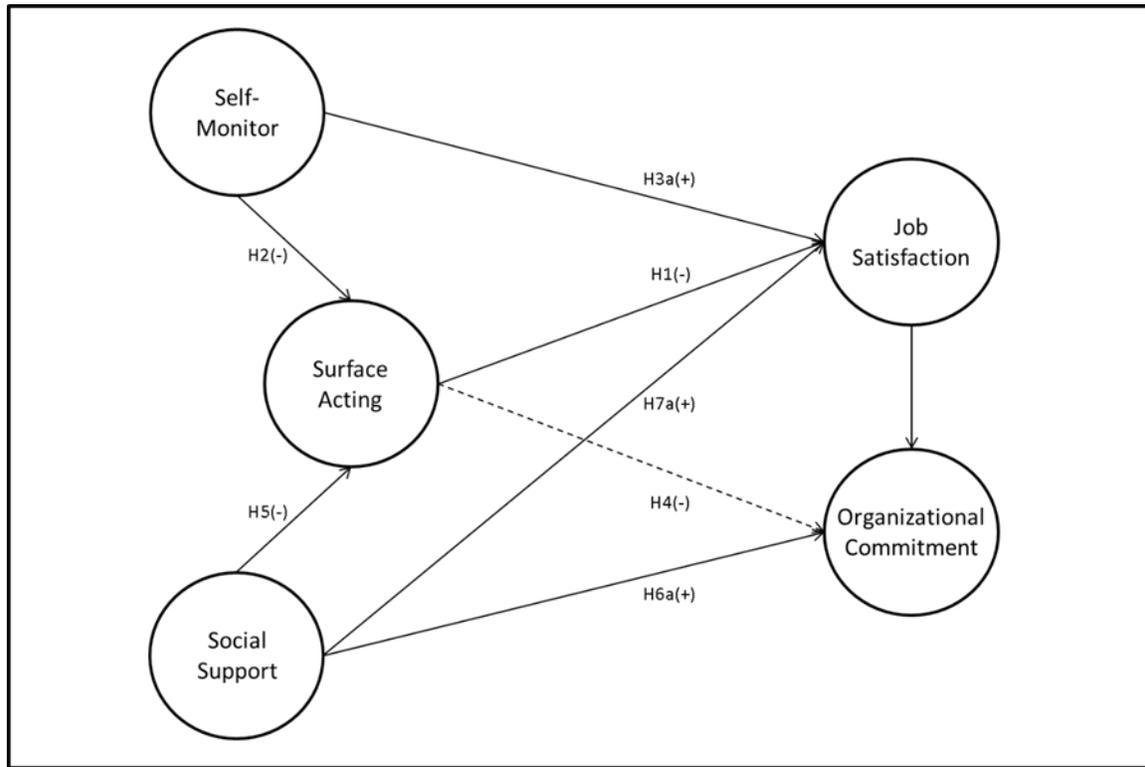
The relationship between social support and job satisfaction, however, also likely occurs through the reduced emotional suppression involved in surface acting. This too is supported by the chain of relationships championed by Wharton and Erickson (1993), which indicate employees who have social support are better able to deal with the discomfort associated with surface acting and, in turn, experience less work-related stress. Support available to salespeople should therefore reduce the need to suppress emotions and increase their job satisfaction when this need is alleviated. Thus, salespeople with social support available are likely to appraise their job in a satisfactory manner.

H₇: Social support available to the salesperson is (a) positively associated with job satisfaction and (b) the positive relationship between social support available to the salesperson and job satisfaction is partially mediated by salesperson surface acting.

The Impact of Job Satisfaction on Organizational Commitment

While numerous proposed antecedents to salesperson organizational commitment exist, job satisfaction has perhaps received more attention than any other precursor (Babakus et al., 1999; Boles, Madupalli, Rutherford, & Wood, 2007). Job satisfaction is an antecedent to organizational commitment (Brown & Peterson, 1993; Schetzle & Drollinger, 2014), indicating that a positive attitude towards a job is predictive of organizational commitment. This established linkage between job satisfaction and organizational commitment is controlled for in this surface acting model.

FIGURE 1:
Surface Acting’s Impact on Job Satisfaction and Organizational Commitment



METHOD

Sample

The subjects for this study were recruited using an online panel. A total of 549 respondents that reportedly work(ed) in sales entered the site and began the questionnaire. Respondents who did not complete the survey were removed (n = 92), along with those reporting they do not currently work in sales (n = 142). Listwise deletion is considered acceptable in cases where the study has the sample size to support the technique (Hair, Black, Babin, Anderson, & Tatham 2010; 2012; Wyner, 2007; Yenduri & Iyengar, 2007). Of the remaining 315 completed surveys, respondents classified themselves as working in retail (57.4%) or business-to-business sales. Individual cases were examined for excessive missing data (>10%) on the examined variables. Two respondents were removed given the amount of missing data. Next, variables were examined for percent of missing data. The highest amount of missing data on any given variable was 1.3%. Given

that no single variable had over 10% missing data, the complete case approach (listwise deletion) was then considered. A minimum sample size of 100 is recommended by Hair and colleagues (2010) when the model has 5 or fewer constructs. In total, 78 respondents were removed. The final number of usable responses is 235 for an effective usable response rate of 42.8%. Overall, the item-to-respondent ratio is 1:8. According to Marsh, Hau, Balla, and Grayson (1998) and Boomsma and Hoogland (2001), an item to respondent ratio of at least 1:5 is required. The missing data appear to be missing completely at random. Non-response bias was disconfirmed after finding no significant differences between early and late responders with accordance to Armstrong and Overton’s (1977) procedure. The sample is 54.5% male and 42.9 years of age on average. The average hours worked per week is 40.3.

Measurement

As the Appendix details, all items were measured on seven point Likert-type scales

anchored by strongly (dis)agree, with the exception of the social support scale which is measured on a five point Likert-type scale anchored by “very much” and “don’t have any such person.” Results showed that all scales had reliability estimates above the .70 Cronbach’s alpha criterion suggested by Nunnally (1978). Surface acting was measured using the three items of the Emotional Labor subscale of Adelman (1989) and had a reliability of .93. Self-monitoring was assessed using the seven items of the Ability to Modify Self-Presentation subscale of Lennox and Wolfe (1984) and had a reliability of .76. Social support was measured using the four items of Caplan’s (1976) scale adapted for workplace settings and had a reliability of .85. Job satisfaction was measured using four items that tap into employees’ overall satisfaction with work (Comer, Machleit, & Lagace, 1989; Lagace, Goolsby, & Gassenheimer, 1993) and had a reliability of .93. Organizational commitment was evaluated using the nine items of Mowday et al., (1979) scale, with a reliability of .95 (see Table 1).

Analytic Approach

The analytic approach to evaluating the hypothesized structural model with data collected for the study involved three steps. First, a confirmatory factor analysis was conducted by creating a measurement model using LISREL 8.80 (Jöreskog & Sörbom, 2001) in which each construct is allowed to co-vary with each other. This was done in order to ensure that each item is loading on the correct construct. Convergent validity, which indicates that the items that make up a construct share a high proportion of variance, was assessed by examining the factor loadings of the items in the study. As further evidence of convergent validity, the average variance extracted (AVE) was calculated for each construct (Bagozzi & Yi, 1988). Discriminant validity, which examines how distinct constructs are from each other, was assessed by comparing the AVE to the square of the inter-correlations among factors (Fornell & Larcker, 1981).

In accordance with the procedure laid out by Lindell and Whitney (2001), the hypothesized

**TABLE 1:
Construct Correlations and Reliabilities**

	OC	JS	SM	SS	SA
OC	(.95)				
JS	.73**	(.93)			
SM	.24**	.33**	(.76)		
SS	.55**	.46**	.26**	(.85)	
SA	-.16*	-.18**	-.001	-.14*	(.93)
Mean	4.76	4.83	5.04	3.55	4.23
Std. Deviation	1.42	1.43	0.88	0.85	1.52
Range	6.00	6.00	4.29	4.00	6.00
AVE	0.71	0.78	0.44	0.62	0.60

* Indicates that correlations are significant at the p = .05 level.
 ** Indicates that correlations are significant at the p = .01 level
 () Cronbach’s alpha reliability estimates are on the diagonal.

OC = Organizational Commitment; JS = Job Satisfaction; SM = Self-Monitoring; SS = Social Support; SA = Surface Acting

model was re-run with the addition of an established marker variable - age (Griffith & Lusch, 2007). The marker variable was thought to have no relationship with, or impact on, any of the variables in the study. The marker variable was linked to all other endogenous constructs in the study and set to co-vary with all of the exogenous constructs in the study. If the marker variable shows a significant parameter estimate, an issue with common methods variance potentially exists (Williams, Hartman, & Cavazotte, 2010).

In order to determine how well the hypothesized relationships among the constructs fit the data, the structural model was also assessed using LISREL 8.80. The relationship between job satisfaction and organizational commitment was controlled for in the model. Mediation was evaluated using the method suggested by Preacher and Hayes (2004). Once direct and indirect effects were determined to be significant, each instance of mediation was evaluated by removing the mediated path and evaluating the strength of the direct effect. Then the mediated path was replaced and the change in the direct effect was noted. If the decrease in the strength of the direct path is statistically significant (insignificant), partial (full) mediation is established.

RESULTS

Measurement Model

The model has a chi-square of 611.68 ($df = 309$) and meets Hu and Bentler's (1999) criteria of a chi-square to degrees of freedom ratio of two to one or less. Hu and Bentler (1999) further recommend an SRMR of less than or equal to .08. The score on the measurement model of SRMR = .07 indicates an unlikely chance of errors in the structure of the model. Hair and colleagues (2010) also recommend a CFI greater than or equal to .95 or an RMSEA less than or equal to .08. The scores on the measurement model of CFI = .96 and RMSEA = .07 indicate that the factors are loading on the correct constructs. No items were removed from the measurement model, enabling each construct to be measured by a full, validated survey instrument. The results provide evidence of convergent validity. All factors meet the

criteria of both significance and a standardized weight above .50 (Hair et al., 2010). The only exception is the seventh item on the self-monitoring scale, which while still significant, has a standardized weight of .47. One factor (self-monitoring) falls below the recommended cutoff value of .50 (see Table 1). While this is just below the recommended cutoff, there is precedence for using a construct with a standardized weight below .50 (Babin & Boles, 1998). The overall construct AVE average is .63.

Since the AVE of self-monitoring is not large (.62), it is of little surprise that when the self-monitoring scale (and link) is removed from the model, AVE is not greatly affected. As seen in Table 1, the endogenous variables have an explained variance of: .35 (affective organizational commitment), .28 (job satisfaction), and .14 (surface acting). After removing the link between self-monitoring and surface acting, affective organizational commitment's explained variance is still .35, job satisfaction's .20, and surface acting's .11.

The results also provide evidence of discriminant validity. In all instances, the AVE is greater than the squared inter-correlations between factors. Finally, the results of the marker variable test indicate that all five paths between the marker variable age and the endogenous constructs in the study are non-significant: job satisfaction ($t = -1.21$), organizational commitment ($t = 1.44$), surface acting ($t = .43$), self-monitoring ($t = .95$), and social support ($t = 1.09$), suggesting common method is not an issue.

Structural Model

The structural model displays the requirements for good fit as well: chi-square = 572.36 ($df = 308$), CFI = .98, RMSEA = .06, and SRMR = .07. Since the results indicate an unlikely chance of errors in either structure or loadings, the individual hypotheses are examined next. H_1 examines the negative relationship between surface acting and job satisfaction. The results indicate that H_1 is supported ($\beta = -.30$, $t = -3.75$, $p < .05$). H_2 predicts the negative relationship between self-monitoring and surface acting. Findings indicate that H_2 is supported ($\beta = -.45$, $t = -3.98$, $p < .05$). H_{3a} tests the positive

relationship between self-monitoring and job satisfaction. Results indicate that H_{3a} is supported ($\beta = .43, t = 3.94, p < .05$). H_{3b} predicts the relationship between self-monitoring and job satisfaction is partially mediated by surface acting. The results of a chi-square difference test indicate support for H_{3b} ($\chi^2 = 8, 1 df$). H₄ examines the negative relationship between surface acting and commitment to the organization. H₄, however, is not supported ($\beta = -.01, t = -.15, p > .05$). Findings support the negative relationship between social support and surface acting as H₅ predicts ($\beta = -.41, t = -3.05, p < .05$). H_{6a} predicts a positive relationship between social support and organizational commitment. Results indicate support for H_{6a} ($\beta = .40, t = 4.34, p < .05$). H_{6b} hypothesizes the relationship between social support and organizational commitment is partially mediated by surface acting. Since no significant link between surface acting and organizational commitment exists (H₄), H_{6b} is not supported. H_{7a} predicts a

positive relationship between social support and job satisfaction. H_{7a} is supported ($\beta = .61, t = 4.57, p < .05$). H_{7b} states the relationship between social support and job satisfaction is partially mediated by surface acting. The results of a chi-square difference test support H_{7b} ($\chi^2 = 19, 1 df$). Finally, the control linkage states that a salesperson’s organizational commitment should increase as job satisfaction increases. As expected, this relationship is supported ($\beta = .48, t = 7.47, p < .05$). Table 2 provides a summary of these linkages.

DISCUSSION

Theoretical and Managerial Implications

The present research studies workplace emotions in the sales context. In addition to extending surface acting within the sales literature, the findings contribute to personal selling and sales management literature gaps in two ways: it provides (1) insights into

TABLE 2:
Structural Model Results

Hypothesis	Linkage	Parameter Estimate	t-value	p-value	Result
H ₁	Surface Acting→Job Satisfaction	-0.30	-3.75	< 0.05	Supported
H ₂	Self-Monitoring→Surface Acting	-0.45	-3.98	< 0.05	Supported
H _{3a}	Self-Monitoring→Job Satisfaction	0.43	3.94	< 0.05	Supported
H ₄	Surface Acting→Organizational Commitment	-0.01	-0.15	> 0.05	Not Supported
H ₅	Social Support→Surface Acting	-0.41	-3.05	< 0.05	Supported
H _{6a}	Social Support→Organizational Commitment	0.40	4.34	< 0.05	Supported
H _{7a}	Social Support→Job Satisfaction	0.61	4.57	< 0.05	Supported
--	Job Satisfaction→Organizational Commitment	0.48	7.47	< 0.05	Supported
Mediation Hypothesis	Partial Mediation			Chi Square Difference	Result
H _{3b}	Self-Monitoring à Job Satisfaction mediated by Surface Acting			8 (df=1)	Supported
H _{6b}	Social Support à Organizational Commitment mediated by Surface Acting			N/A	Not Supported
H _{7b}	Social Support à Job Satisfaction mediated by Surface Acting			19 (df=1)	Supported

equivocal findings within job satisfaction models by studying the mediating role of surface acting with two offsetting variables – self-monitoring and social support – and (2) a theoretical link between display rules and salesperson emotional states through the process of surface acting.

Findings demonstrate that surface acting emotions lead salespeople to experience reduced levels of job satisfaction, an important concept for salesperson retention (e.g., Pettijohn, Pettijohn, & Taylor, 2007). As some antecedents to job satisfaction in extant literature are equivocal, surface acting may play a role in these relationships procedurally. For example, while role stress is a symptom of spanning boundaries, surface acting should be considered as a boundary spanning routine. Thus, accounting for surface acting in models of workplace emotion could potentially explain additional variance in job satisfaction above and beyond that explained by the emotional state of role stress.

The mediating effect of surface acting also helps to clarify the processes through which self-monitoring and social support lead to salesperson attitudes. The counter-effect of social support is established to show a mechanism practitioners can use for offsetting an indirect negative relationship between surface acting emotions and job satisfaction. To drive social support, sales managers should encourage social relationships with salespeople and among their colleagues. Specifically, Roberts, Lapidus, and Chonko (1997) suggest practitioners develop mentoring programs with supervisors so as to foster a socially supportive environment. Brotheridge and Lee (2002) further suggest increasing social support provided to salespeople can be accomplished when the role is structured to enable multiple opportunities for interaction with co-workers.

Support of the partially mediated relationship of self-monitoring and social support to job satisfaction via surface acting offers two mechanisms the sales manager can use to offset the negative feelings involved with surface acting. Yet, research often recommends tight supervision by managers for effective salesperson surface acting (e.g., Rafaeli & Sutton, 1987) and emotion regulation (Rozell

et al., 2006). For example, Mastracci, Newman, and Guy (2006) recommend practitioners encourage the incorporation of emotions in job appraisals so as to better control and supervise the suppression of real emotions and display of fake emotions. However, prior research finds when frontline employees suppress emotions, job dissatisfaction ensues (e.g., Babakus et al., 1999; Morris & Feldman, 1996). Similarly, this study finds when salespeople suppress emotions, job dissatisfaction ensues.

Instead of training salespeople to suppress real emotions and present fake emotions, results of the present study suggest sales managers should consider facilitating the development of a supportive organizational culture. Additionally, research also suggests that sales managers can use training to influence the salesperson's ability to self-monitor emotions. Such training is facilitated through programs that involve practice at being more adaptive. This can be accomplished when sales managers facilitate role-playing activities or anonymous customer exit interviews in which feedback is provided about salesperson attention to unique customer needs (Deeter-Schmelz & Sojka, 2007).

Limitations and Future Research

The data do not support a negative relationship between surface acting and organizational commitment. One possible explanation for this non-significant relationship pertains to the thought that the adverse outcomes associated with surface acting may be more appropriately associated with the sales occupation instead of the sales organization. Affective outcomes of inauthentic workplace displays, such as job satisfaction, are likely the result of internal tension caused by unsuccessful surface acting. However, the impact on commitment to the organization may only indirectly operate through this relationship and the heightened change in work attitudes specific to the role (Reichers, 1986). In fact, the salesperson may not envision the surface acting requisite of the personal selling role varying greatly from one organization to the next. Future research should therefore consider capturing the influence of surface acting on occupational commitment to compare effects of surface acting and identify if the potential drop in commitment resulting from salesperson surface acting is actually more

targeted at the sales role instead of the organization.

Future research should also consider how being satisfied with the sales career and/or committed to the organization might increase the likelihood that the salesperson actually feels the positive displays (e.g., good mood, empathy) when interacting with various parties, and, in turn, reduce the need to act. Mallin and Serviere-Munoz (2013) find that salespeople with relatively low levels of organizational commitment are more likely to engage in an internal justification process to close the gap between potential selling behaviors and internal feelings. Similarly, it is possible that varying pressures, such as from a customer versus a vendor or to attract versus retain a client, might also vary the perceived pressure to surface act. In essence, future research should incorporate organizational antecedents, instead of just salesperson traits, which may heighten or lessen the salesperson's perceived need to surface act. Another issue future research should further examine is the relationship between surface acting and self-monitoring in order to determine what is behind the insignificant correlation yet significant direct linkage. Is this an artifact in the study's data, is there some sort of suppression effect, or is something more going on?

Finally, while this study successfully incorporates surface acting within sales research, the cross-sectional data does not prove causality. Longitudinal data may overcome this limitation because it provides a means of supporting causal order and demonstrating that as surface acting increases, job satisfaction decreases. Longitudinal data may also provide stronger support for the mediating role of surface acting in the procedural relationships from self-monitoring and social support to job satisfaction. In addition to longitudinal data, another data source which would help overcome the limitations of cross-sectional data is dyadic salesperson-customer data. This would allow researchers to compare supplier and buyer perspectives. While customers may have consequential responses similar to suppliers if salesperson surface acting is identified (e.g., reduced trust), there may also be benefits

realized if surface acting is not identified (e.g., comfort sharing knowledge).

REFERENCES

- Abraham, R. (1998). Emotional dissonance in organizations: antecedents, consequences, and moderators. *Genetic, Social, and General Psychology Monographs*, 12 (2), 229-246.
- Abraham, R. (1999). The impact of emotional dissonance on organizational commitment and intention to turnover. *Journal of Psychology*, 133 (4), 441-455.
- Adelmann, P. K. (1989). Emotional labor and employee well-being. *Unpublished Dissertation*.
- Armstrong, J. S., & Overton, T. S. (1977). Estimating non-response bias in mail surveys. *Journal of Marketing Research*, 14 (3), 396-402.
- Ashforth, B. E., & Tomiuk, M. A. (2000). "Emotional labour and authenticity: views from service agents," *Emotion in organizations* (2nd ed.), S. Fineman, ed. S. Fineman (Ed.) ed. London: Sage.
- Ashkanasy, N. M., & Daus, C. S. (2002). Emotion in the workplace: the new challenge for managers. *Academy of Management Executive*, 16 (1), 76-86.
- Babakus, E., Cravens, D. W., Johnston, M., & Moncrief, W. (1999). The role of emotional exhaustion in sales force attitude and behavior relationships. *Journal of the Academy of Marketing Science*, 27 (1), 58-70.
- Babin, Barry & James S. Boles. (1998). Employee behavior in a service environment: a model and test of potential differences between men and women. *Journal of Marketing*, 62 (2), 77-91.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16 (1), 74-94.
- Barsade, S. G., & Gibson, D. E. (2007). Why does affect matter in organizations. *Academy of Management Perspectives*, 21 (1), 36-57.
- Baumeister, R. F., Vohs, K. D., & Tice, D. M. (2007). The strength model of self-control. *Current Directions in Psychological Science*, 16 (6), 351-355.
- Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The service encounter: diagnosing favorable and unfavorable incidents. *Journal of Marketing*, 54 (1), 71-84.

- Boles, J., Madupalli, R., Rutherford, B., & Wood, J. A. (2007). The relationship of facets of salesperson job satisfaction with affective organizational commitment. *Journal of Business & Industrial Marketing*, 22 (4/5), 311-321.
- Bolton, S. C., & Boyd, C. (2003). Trolley dolly or skilled emotion manager? Moving on from Hochschild's managed heart. *Work, Employment & Society*, 17 (2), 289-308.
- Boomsma, A. & Hoogland, J. J. (2001). The robustness of LISREL modeling revisited. Structural equation modeling: past, present and future, Lincolnwood, Illinois: SSI.
- Brotheridge, C. M., & Grandey, A. A. (2002). Emotional labor and burnout: comparing two perspectives of "people work." *Journal of Vocational Behavior*, 60 (1), 17-39.
- Brotheridge, C. M., & Lee, R. T. (2002). Testing a conservation of resources model of the dynamics of emotional labor. *Journal of Occupational Health Psychology*, 7 (1), 57-67.
- Brown, S. P., & Peterson, R. A. (1993). Antecedents and consequences of salesperson job satisfaction: meta-analysis and assessment of causal effects. *Journal of Marketing Research*, 30 (1), 63-77.
- Butler, E. A., Egloff, B., Wilhelm, F. H., Smith, N. C., Erickson, E. A., & Gross, J. J. (2003). The social consequences of expressive suppression. *Emotion* 3(1), 48-67.
- Caplan, G. (1976). "The family as a support system," in Support systems and mutual help, Gerald Caplan and Marie Killea, eds. New York: Grune & Stratton.
- Comer, J. M., Machleit, K. A., & Lagace, R. R. (1989). Psychometric assessment of a reduced version of INDSALES. *Journal of Business Research*, 18 (4), 291-302.
- Cordes, C. L., & Dougherty, T. W. (1993). A review and an integration of research on job burnout. *Academy of Management Review*, 18 (4), 621-656.
- DeConinck, J. B. (2011). The effects of leader-member exchange and organizational identification on performance and turnover among salespeople. *Journal of Personal Selling & Sales Management*, 31 (1), 21-34.
- Deeter-Schmelz, D. R., & Sojka, J. (2007). Personality traits and sales performance: exploring differential effects of need for cognition and self-monitoring. *Journal of Marketing Theory and Practice*, 15 (2), 145-157.
- Diefendorff, J. M., Erickson, R. J., Grandey, A. A., & Dahling, J. J. (2011). Emotional display rules as work unit norms: a multilevel analysis of emotional labor among nurses. *Journal of Occupational Health Psychology*, 16 (2), 170-186.
- Diefendorff, J. M., & Gosserand, R. H. (2005). Emotional display rules and emotional labor: the moderating role of commitment. *Journal of Applied Psychology*, 90 (6), 1254-1264.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117-140.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18 (1), 39-50.
- Fry, L., Futrell, C., Parasuraman, A., & Chmielewski, M. (1986). An analysis of alternative causal models of salespeople role perceptions and work-related attitudes. *Journal of Marketing Research*, 23 (2), 153-163.
- Fu, F. Q., Bolander, W., & Jones, E. (2009). Managing the drivers of organizational commitment and salesperson effort: an application of Meyer and Allen's three-component model. *Journal of Marketing Theory and Practice*, 17 (4), 335-350.
- Grandey, A. A. (1998), "Emotional labor: a concept and its correlates," in First Conference on Emotions in Organizational Life. San Diego, CA.
- Grandey, A. A. (2003). When "the show must go on": surface acting and deep acting as determinants of emotional exhaustion and peer-rated service delivery. *Academy of Management Journal*, 46 (1), 86-96.
- Griffith, D. A., & Lusch, R. F. (2007). Getting marketers to invest in firm-specific capital. *Journal of Marketing*, 71 (1), 129-145.
- Groth, M., Hennig-Thurau, T., & Walsh, G. (2009). Customer reactions to emotional labor: the roles of employee acting strategies and customer detection accuracy. *Academy of Management Journal*, 52 (5), 958-974.

- Gump, B. B., & Kulik, J. A. (1997). Stress, affiliation, and emotional contagion. *Journal of Personality and Psychology, 72* (2), 435-448.
- Haines, V. A., Hurlbert, J. S., & Zimmer, C. (1991). Occupational stress, social support, and the buffer hypothesis. *Work and Occupations, 18* (2), 212-235.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010). *Multivariate data analysis*. New Jersey: Pearson/Prentice Hall.
- Hennig-Thurau, T., Groth, M., Paul, M., & Gremler, D. D. (2006). Are all smiles created equal? How emotional contagion and emotional labor affect service relationships. *Journal of Marketing, 70* (3), 58-73.
- Hochschild, A. R. (1983). *The managed heart: communication of human feeling*. Berkeley: University of California Press.
- House, G. S. (1981). *Work stress and social support*. Reading: Addison-Wesley.
- Hu, L.-T., & Bentler, P. M. (1999). Cut-off criteria for fit indices in covariance structure analysis: conventional criteria vs. new alternatives. *Structural Equation Modeling, 6* (1), 1-55.
- Jöreskog, K., & Sörbom, D. (2001). *LISREL 8: user's reference guide*. Lincolnwood: SSI Scientific Software International.
- Kidwell, B., Hardesty, D. M., Murtha, B. R., & Sheng, S. (2011). Emotional intelligence in marketing exchanges. *Journal of Marketing, 75* (1), 78-95.
- Kinman, G. (2009). Emotional labour and strain in "front-line" service employees: does mode of delivery matter? *Journal of Managerial Psychology, 24* (2), 118-135.
- Krush, M. T., Agnihotri, R., Trainor, K. J., & Krishnakumar, S. (2013). The salesperson's ability to bounce back: examining the moderating role of resiliency on forms of intra-role job conflict and job attitudes. *The Marketing Management Journal, 23* (1), 42-56.
- Lagace, R. R., Goolsby, J. R., & Gassenheimer, J. B. (1993). Scaling and measurement: a quasi-replicative assessment of a revised version of INDSALES. *Journal of Personal Selling & Sales Management, 13* (1), 65-72.
- Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three deminsions of job burnout. *Journal of Applied Psychology, 81* (2), 123-133.
- Lennox, R. D., & Wolfe, R. N. (1984). Revision of the self-monitoring scale. *Journal of Personality and Social Psychology, 46* (6), 1349-1364.
- Lindell, M. K., & Whitney, D. J. (2001). Accounting for common method variance in cross-sectional designs. *Journal of Applied Psychology, 86* (1), 114-121.
- Locke, E. A. (1976). *The nature and consequences of job satisfaction handbook of industrial and organizational psychology*. Chicago: Rand McNally.
- Mallin, M. L., & Serviere-Munoz, L. (2013). An exploratory study of the role of neutralization on ethical intentions among salespeople. *The Marketing Management Journal, 23* (2), 1-20.
- Marsh, H. W., Hau, K., Balla, J.R., & Grayson, D. (1998). Is more ever too much? The number of indicators per factor I confirmatory factor analysis. *Multivariate Behavioral Research, 33* (2), 181-220.
- Mastracci, S. H., Newman, M. A., & Guy, M. E. (2006). Appraising emotion work: determining whether emotional labor is valued in government jobs. *The American Review of Public Administration, 36*(2), 123-138.
- McFarland, R. G. (2003). Crisis of conscience: the use of coercive sales tactics and resultant stress in the salesperson. *Journal of Personal Selling & Sales Management, 23* (4), 311-325.
- Mikolajczak, M., Menil, C., & Luminet, O. (2007). Explaining the protective effect of trait emotional intelligence regarding occupational stress: exploration of emotional labour processes. *Journal of Research in Personality, 41* (5), 107-117.
- Morris, J. A., & Feldman, D. C. (1996). The dimensions, antecedents, and consequences of emotional labor. *Academy of Management Review, 21* (4), 986-1010.
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior, 14* (2), 224-247.
- Mulki, J. P., Jaramillo, F., Goad, E. A., & Rivera, M. (2015). Regulation of emotions, interpersonal conflict, and job performance for salespeople. *Journal of Business Research, 68* (3), 623-630.

- Mumby, D. K., & Putnam, L. L. (1992). The politics of emotion: a feminist reading of bounded rationality. *Academy of Management Review*, 17 (3), 465-486.
- Nunnally, J. C. (1978). Psychometric theory. New York: McGraw-Hill.
- Palmer, T. B., & Pickett, G. M. (1999). The role of mental models in control theory: understanding cognitive factors influencing the behaviors of salespeople. *Journal of Marketing Theory and Practice*, 7 (1), 17-29.
- Parasuraman, A., & Futrell, C. M. (1983). Demographics, job satisfaction, and propensity to leave of industrial salesmen. *Journal of Business Research*, 11 (1), 33-48.
- Park, J. E., & Deitz, G. (2006). The effect of working relationship quality on salesperson performance and job satisfaction: adaptive selling behavior in Korean automobile sales representatives. *Journal of Business Research*, 59 (2), 204-213.
- Pettijohn, C. E., Pettijohn, L. S., & Taylor, A. J. (2007). Does salesperson perception of the importance of sales skills improve sales performance, customer orientation, job satisfaction, and organizational commitment, and reduce turnover? *Journal of Personal Selling & Sales Management*, 27 (1), 75-88.
- Pettijohn, L. S., Pettijohn, C. E., & Taylor, A. J. (2009). Retail sales training: activities and effects on job satisfaction, organizational commitment, turnover and customer-orientation. *The Marketing Management Journal*, 19 (1), 46-57.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36 (4), 717-731.
- Pugliesi, K. (1999). The consequences of emotional labor: effects on work stress, job satisfaction, and well-being. *Motivation & Emotion*, 23 (2), 125-154.
- Rafaeli, A., & Sutton, R. I. (1987). Expression of emotion as part of the work role. *Academy of Management Review*, 12 (1), 23-37.
- Reichers, A. E. (1986). Conflict and organizational commitments. *Journal of Applied Psychology*, 71 (3), 508-514.
- Richards, J. M., & Gross, J. J. (1999). Composure at any cost? The cognitive consequences of emotion suppression. *Personality and Social Psychology Bulletin*, 25 (8), 1033-1044.
- Riggio, R. E., & Friedman, H. S. (1982). The interrelationships of self-monitoring factors, personality traits, and nonverbal social skills. *Journal of Nonverbal Behavior*, 7 (1), 33-45.
- Roberts, J. A., Lapidus, R. S., & Chonko, L. B. (1997). Salespeople and stress: the moderating role of locus of control on work stressors and felt stress. *Journal of Marketing Theory and Practice*, 5 (3), 93-108.
- Rozell, E. J., Pettijohn, C. E., & Parker, R. S. (2006). Emotional intelligence and dispositional affectivity as predictors of performance in salespeople. *Journal of Marketing Theory and Practice*, 14 (2), 113-124.
- Schaefer, A. D., & Pettijohn, C. E. (2006). The relevance of authenticity in personal selling: is genuineness an asset or liability? *Journal of Marketing Theory and Practice*, 14 (1), 25-35.
- Schetzle, S., & Drollinger, T. (2014). The use of dominance analysis to identify key factors in salespeople's affective commitment toward the sales manager and organizational commitment. *The Marketing Management Journal*, 24 (1), 1-15.
- Schwepker, C. H. (2001). Ethical climate's relationship to job satisfaction, organizational commitment, and turnover intention in the salesforce. *Journal of Business Research*, 54 (1), 39-52.
- Sheldon, K. M., Ryan, R. M., Rawsthorne, L. J., & Ilardi, B. (1997). Trait self and true self: cross-role variation in the big-five personality traits and its relations with psychological authenticity and subjective well-being. *Journal of Personality and Social Psychology*, 73 (6), 1380-1393.
- Singh, J. (1998). Striking a balance in boundary-spanning positions: an investigation of some unconventional influences of role stressors and job characteristics on job outcomes of salespeople. *Journal of Marketing*, 62 (3), 69-86.
- Snyder, M. (1974). Self-monitoring of expressive behavior. *Journal of Personality and Social Psychology*, 30 (4), 526-537.
- Sumrall, D. A., & Sebastianelli, R. (1999). The moderating effect of managerial sales orientation on salespersons' role stress-job satisfaction relationships. *Journal of Marketing Theory and Practice*, 7 (1), 72-79.

- Tajfel, H. (1972). Social categorization. *Introduction a la Psychologie Sociale, 1*, 272-302.
- Totterdell, P., & Holman, D. (2003). Emotion regulation in customer service roles: testing a model of emotional labor. *Journal of Occupational Health Psychology, 8* (1), 55-73.
- Walker, O., Churchill, G., & Ford, N. (1975). Organizational determinants of the industrial salesman's role conflict and ambiguity. *Journal of Marketing, 39* (1), 32-39.
- Wharton, A. S., & Erickson, R. J. (1993). Managing emotions on the job and at home: understanding the consequences of multiple emotional roles. *Academy of Management Review, 18* (3), 457-486.
- Williams, L. J., Hartman, N., & Cavazotte, F. (2010). Method variance and marker variables: a review and comprehensive CFA marker technique. *Organizational Research Variables, 13* (3), 477-514.
- Wynar, Gordon A. (2007). Data preservation. *Journal of Marketing Research, 19* (3) 67-77.
- Yenduri, Sumanth, & S. Sitharama Iyengar. (2007). Performance evaluation of imputation methods for incomplete datasets. *International Journal of Software Engineering and Knowledge Engineering 17*, (1), 127-152.

APPENDIX: Scale Items

Construct/Items

Surface Acting (7-point, strongly disagree/strongly agree)

Please answer the following section with regards to yourself:

1. Resist expressing my true feelings
2. Pretend to have emotions that I don't really have
3. Hide my true feelings about a situation

Self-Monitoring (7-point, strongly disagree/strongly agree)

Please answer the following section with regards to yourself:

1. Once I know what the situation calls for, it's easy for me to regulate my actions accordingly
2. I have found that I can adjust my behavior to meet the requirements of any situation
3. I find myself in I have trouble changing my behavior to suit different people and different situations
4. In social situations, I have the ability to alter my behavior if I feel that something else is called for
5. I have the ability to control the way I come across to people depending on the impression I wish to give them
6. When I feel that the image I am portraying isn't working, I can readily change to something that does
7. Even when I might be to my advantage, I have difficulty putting up a good front

Social Support (5-point; very much, somewhat, a little, not at all, don't have any such person)

Please answer the following questions with regards to yourself:

1. How much do other people at work do out of their way to do things to make your work life easier for you?
2. How easy is it to talk with other people at work?
3. How much can other people at work be relied on when things get tough at work?
4. How much are other people at work willing to listen to your person problems? **Job Satisfaction** (7-point, Strongly Disagree/Strongly Agree)
5. Please answer the following section with regards to yourself:
6. My work gives a sense of accomplishment My job is exciting My work is satisfying
7. I'm really doing something worthwhile in my job

Organizational Commitment (7-point, Strongly Disagree/Strongly Agree)

Please answer the following section with regards to yourself:

1. I am willing to put in a great deal of effort beyond that expected in order to help this organization be successful
2. I talk up my organization to my friends as a great organization to work for
3. I would accept almost any type of job assignment in order to keep working for this organization
4. I find that my values and the organization's values are very similar
5. I am proud to tell others that I am part of this organization
6. I feel this organization really inspires the very best in me in the way of job performance
7. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined
8. I really care about the fate of this organization
9. I feel, for me, this is the best of all possible organizations for which to work

EAT WITH YOUR EYES: PACKAGE COLOR INFLUENCES THE EXPECTATION OF FOOD TASTE AND HEALTHINESS MODERATED BY EXTERNAL EATING

*LEI HUANG, State University of New York at Fredonia
JI LU, Dalhousie University*

In the context of food product marketing, this paper is one of the few academic research studies that examine the effect of package color on consumers' inference on intrinsic product attributes. In a within-subject experimental study, 40 participants rate sweetness and healthiness of 12 food products contained in red, green and blue packages. The results demonstrate that red packaged products are perceived to be sweeter, whereas products packaged in green and blue are associated with the perception of healthiness. In terms of individual differences, external eaters, whose eating behavior is primarily triggered by external hedonic cues, are particularly sensitive to the effect of red package on sweetness taste and healthiness inference. The managerial applications of the consumer's cognitive-behavioral responses to the package color strategy and future research are discussed as well.

INTRODUCTION

A product package often is the first thing that triggers the consumer's instant responses before making purchase decisions in retail environments (Cardello, 1996), and color is one of the most potent features of product package design in the food industry (Deliza, Macfie, & Hedderley, 2003). As package design is an extrinsic cue that can influence consumers' perceptions about the intrinsic attributes of the contained product (Limon, Kahle, & Orth, 2009; Orth & Malkewitz, 2008), marketers tend to use package color to differentiate products. For example, blue or green packaging usually points to healthy foods, whereas red packages often represent tasty and less healthy alternatives. Despite this common industry practice, little academic research has focused on the influence of package color on consumers' perceptions in choosing food products. Instead of using package colors, Vasiljevic, Pechey, and Marteau (2015) examined the impact of color of nutritional labels on the choice of snack foods. In a similar vein, Reutner, Genschow, and Wänke (2015) tested the moderation effect of healthiness perception on the relationship between the color red and food consumption. In Study 1 they investigated incidental consumption of healthy

and unhealthy food from red and white plates while in Study 2 they asked the participants to choose between pieces of bread marked with little green and red flags. As an extension on the current literature, the present study thus aims to examine how an important aspect of packaged food – namely, its package color as an external cue and marketing tool – impacts consumer's perceptions of hedonic value as well as cognitive judgment of the healthiness perceptions.

Shaped by the individual's sociocultural background and everyday life experiences, color carries symbolic meanings that bear both cognitive implications and affective responses thereby strongly influencing the perception of colored objects (Elliot & Maier, 2007). It has been proposed that the effective use of color as a marketing cue, such as in product, logo and package design, is based on the consistency between the individual's perceptions concerning desirable product attributes and the symbolic meanings or affective reactions to different colors (Bottomley & Doyle, 2006; Holmes & Buchanan, 1984; Walsh, Toma, Tuveson, & Sondhi, 1990). Particularly, in food product research, warm colors (e.g., food and beverages in red color) are often tied to hedonic attributes that stimulate the sensory properties, such as the taste of sweetness (Walsh, et al., 1990). On the other hand, cool colors (e.g., blue and green labels) are associated with the healthiness perception resulting from a

cognitive judgement (Schuldt, 2013). Additionally, a recent study has revealed that the package colors of blue and red moderated the healthiness perception of the contained food product (Huang & Lu, 2013). Building upon and going beyond these findings, the current project will examine the hypotheses that red versus blue and green packages are associated with an enhanced perception of hedonic attributes (e.g., sweetness taste) versus healthy food perceptions. Furthermore, the existing literature suggests that consumers often intuitively perceive tasty food as unhealthy (Raghunathan, Naylor, & Hoyer, 2006). It is reasonable to postulate that such intuitions can bridge the red package to the unhealthiness inference mediated by the perception of sweet taste. Finally, external eaters are those individuals whose eating is easily triggered by external sensory cues, such as olfactory and visual stimuli, that carry hedonic value (van Strien, Frijters, Bergers, & Defares, 1986). As a result, external eaters tend to use extrinsic cues to infer the intrinsic hedonic attributes of food (Brignell, Griffiths, Bradley, & Mogg, 2009). As the color red is particularly tied to the perception of hedonic attributes, we expect that external eaters are particularly sensitive to red colored packages in the judgment of food products.

THEORETICAL FRAMEWORK AND HYPOTHESES

According to the three-component theory of color (Hurvich & Jameson, 1957), the human eye senses, or responds to, the three primary colors of light: red, green, and blue, and all other colors in the visible spectrum are mixtures of these three primary colors. In the past few decades, a tremendous amount of research attention has been paid to the influence of these three primary colors' perceptions, specifically hue, on affect, cognition, and behavior (Barsalou, 1999; Connell, 2007; Maier, Barchfeld, Elliot, & Pekrun, 2009). Based on wavelength and arousal, for instance, colors can be grouped into warm and cool. Warm colors (e.g., red) have longer wavelength than cool colors (e.g., blue and green; Mehta & Zhu, 2009). Cognitive thoughts on color are stored in memory with associated mental concepts or experiences that may result from daily knowledge with similar products and

colors; or learned stereotypes and symbolic meanings of colors (Grossman and Wisenblit 1999; Hanss, Böhm, and Pfister 2012). For example, a warm color, such as red, is the color of love and extroversion; whereas a cool color, such as blue is the color of peace and hope (Kaya and Epps 2004).

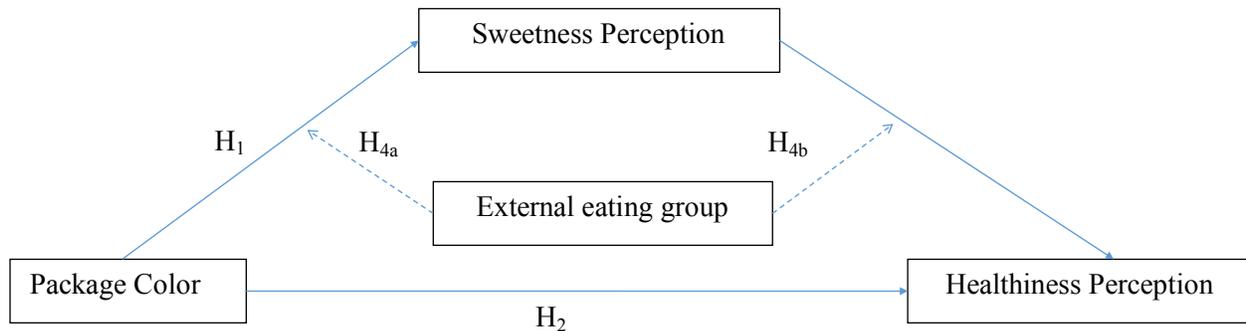
Moreover, depending on the context, a single color or a combination of colors often conveys symbolic meanings that trigger affective responses and are used in marketing practice to identify brands, categorize products, make assumptions, imply quality and guide consumer choices (Aslam, 2006; Bellizzi & Hite, 1992; Grossman & Wisenblit, 1999; Hanss, Böhm, & Pfister, 2012; Loersch & Bartholow, 2011; Singh, 2006). Consumer research suggests that the successful use of color critically depends on the congruency between the symbolic meanings of the color and the type of product or its attributes. For instance, Walsh et al. (1990) found that children preferred red and green colors for candies. Holmes and Buchannan (1984) suggested that people preferred blue for clothes and brown for furniture. For cars, blue and red were preferred as well as silver and black. More recently, a study on brand logos (Bottomley & Doyle, 2006) exhibited that cool colors (e.g., blue or green) were perceived to be appropriate for utilitarian products, such as power tools and car tires, whereas warm colors (e.g., red or orange) were deemed appropriate for products or services that usually brought about hedonic experiences, such as chocolates, nightclubs, and perfume.

In line with the existing literature, we will examine how the three primary colors of packages (i.e., red, green, and blue) influence consumers with different eating behaviors (e.g., high versus low external eaters) on their perceptions of food taste (e.g., sweetness) and healthiness. To illustrate our theoretical framework, Figure 1 summarizes the relationships among the key concepts of this study.

Package Color and Taste Perception

In the domain of food consumption, the symbolic meanings of colors are closely tied to the natural appearance of food (Clydesdale, 1993; DuBose, Cardello, & Maller, 1980;

FIGURE 1:
Theoretical Framework and Hypotheses



Note: Dashed lines indicate the moderating effects.

H₃ is not demonstrated in this figure. H₃ states that the relationship between package color and consumers’ perception of healthiness is mediated by the perception of sweetness.

Johnson & Clydesdale, 1982; Lavin & Lawless, 1998). People begin to relate particular colors to different types of foods from birth (Walsh, et al., 1990), and associate these colors with certain tastes or flavors throughout their lifetimes (Christensen, 1985). For instance, one may expect brown pudding to have a chocolate flavor and yellow jellybeans to have a lemon or banana taste. In fact, the food color-taste association can sometimes go beyond the existing expectation and further bias the actual experience and preference. For example, a cherry-flavored drink in orange or green color is thought to taste like an orange or lemon-lime drink (DuBose, et al., 1980).

The color red is often linked to biologically rewarding cues and a high level of emotional arousal (Moller, Elliot, & Maier, 2009; Niesta Kayser, Elliot, & Feltman, 2010). Such links are consistent with the appetitive reaction to tasty foods with high hedonic value (Raghunathan, et al., 2006). Pangborn (1960) and Maga (1974) illustrated a particular correlation between the redness of food and the perception of sweetness. They argue that such a correlation is perceptually rooted in a natural pattern of many ripening fruits turning red. Several further studies have also confirmed this relationship (e.g., see Johnson & Clydesdale, 1982; Spence, Levitan, Shankar, & Zampini, 2010; Strugnell, 1997). For instance, Lavin and Lawless (1998) asked participants to rate the sweetness of four strawberry-flavored drinks with different colors. Their findings suggested

that the participants rated the dark red solutions sweeter than those in other colors. Although a tremendous number of studies have documented the impact of food color on taste or flavor perceptions, the evidence pertaining to the question of whether *package color* influences people’s perception of taste or flavor intensity is currently unavailable. Due to the hedonic nature of sweetness and the findings from the existing literature, we also take this specific flavor of taste to study our focal research questions. Mapping the relationship between sweetness and the red package color for foods and beverages, we hypothesize that:

H₁: The package color has a significant impact on the perception of sweetness. Specifically, red packaged foods and beverages are perceived sweeter than those in other package colors.

Package Color and Food Healthiness Perception

Compared to the perception of taste, the food healthiness judgment relies relatively more on cognitive information. Although the nutrition information on food packages, such as health and nutrition content claims, leads consumers to make informed decisions in retail settings, shoppers often do not read or examine this information (Cowburn & Stockley, 2005; van Buul & Brouns, 2013; Wansink & Sobal, 2007). Consequently, the food healthiness perception can be strongly influenced by

peripheral cues such as package design (Vasiljevic et al., 2015) and container size (Wansink & Park, 2001).

As color is viewed as one of the most effective package designing features in food industry, both consumers and manufacturers often associate healthy, nutritious food with green or blue packages. For instance, *Upstate Farms* uses green packaging for its 1% milk and blue for its skim milk. This association between blue or green and healthy food is deeply rooted in the consumers' psychological reactions to these colors and reinforced by the sociocultural environment. Social psychology research on color has revealed that the colors of green and blue are often symbolically associated with naturalness (Clarke & Costall, 2008; Kaya & Epps, 2004); and this is in line with the belief that a food product which is closest to its natural form or is produced and processed in natural ways is healthy (Harper & Makatouni, 2002; Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007). In terms of affective responses, blue and green usually elicit low arousal and positive emotions, such as peacefulness, relaxation and comfort (Kaya & Epps, 2004), and these emotions are also consistent with the affective experience of consuming healthy foods (Conner, Norman, & Bell, 2002; Tam, Bagozzi, & Spanjol, 2010). According to these symbolic meanings and affective responses, organizations in the food industry predominantly use green and blue in their marketing communication materials (e.g., logos) to establish a healthy brand image, such as the U.S. Department of Agriculture organic food labels, Smart Choices Certificate, British traffic-light food labeling system, and President's Choice Blue Menu®. These marketing efforts have consolidated the green/blue equals healthiness association by repeatedly pairing blue and green with healthy food products. Referring to the exhibition in Figure 1, we hypothesize that:

H₂: The package color has a significant impact on the perception of food healthiness. Specifically, blue and green packaged foods and beverages are associated with higher healthiness perception than red packaged products.

Raghunathan, Naylor, and Hoyer (2006) demonstrated an intuitive association between the concepts of "unhealthy" and "tasty" through a set of implicit attitude tests, and such association was salient even for those who explicitly expressed the personal belief that healthy food was tasty. As red often suggests palatability, the "tasty food is unhealthy" intuition may also imply that red packaged food is unhealthy (Reutner et al., 2015). We expect that:

H₃: The perception of sweetness mediates the relationship between the package color and the perception of healthiness of the packaged foods and beverages.

External Eating

Since package colors are important external cues that are used to infer the intrinsic properties of food products, it follows that individual differences in how one reacts to and interprets external cues would moderate the package color effect on the taste and healthiness perception. External eating is an individual propensity with the emphasis on external cues to trigger food consumption and guide food choice (van Strien, et al., 1986), and individuals whose eating behavior is highly sensitive to external cues are referred to as high external eaters. It has been demonstrated that high external eaters' food consumption is more importantly influenced by sensory cues (e.g., smell and sight of food) and less importantly guided by nutritional needs, as compared to low external eaters (Rodin & Slochower, 1976; van Strien, et al., 1986). High external eaters tend to prefer food with high hedonic value and manifest this bias in their attention to, and evaluation of food products (Brignell, et al., 2009; Burton, Smit, & Lightowler, 2007; LeBel, Lu, & Dubé, 2008; Newman, O'Connor, & Conner, 2008; van Strien, et al., 1986).

First, when making food-related decisions and judgments, high external eaters' attention is easily captured by the cues that are tied to the sensory pleasure. For instance, external eaters exhibit focused attention to the pleasure-laden food pictures (Neimeijer, de Jong, & Roefs, 2013; Nijs, Franken, & Muris, 2009). Compared to low external eaters, high external eaters respond to food-related pictures and

words faster, and are more likely to be distracted by food-related hedonic stimuli while performing non-food-related cognitive tasks (Brignell, et al., 2009; Hou et al., 2011). Second, when facing cues such as food pictures that imply hedonic value, external eaters tend to give higher evaluations than others (Brignell, et al., 2009). Since external eaters are sensitive to hedonic cues, we expect that their food-related judgment is also sensitive to food package color, especially red, because red is particularly associated with hedonic experience, as opposed to blue and green. Being exposed to red-colored packages, external eaters' attentions are allocated to process the information related to sensory pleasure and thus they may have a higher expectation on the palatability of food than individuals who are not characterized by external eating. On the other hand, packages with green or blue are associated with healthiness, and palatability is considered less relevant compared with red packages. Therefore, the differences between external eaters and others shall be less salient when confronted with green and blue packaged products. Referring to the exhibitions in Figure 1, we hypothesize that:

- H₄:** The individual propensity of external eating moderates the impact of package color on the perception of sweetness and healthiness perception. Such moderating effects are particularly more salient for red than green and blue package colors. Specifically,
- H_{4a}:** The impact of package color on the perception of sweetness is stronger for high external eaters than for low external eaters.
- H_{4b}:** The effect of package color on healthiness perception manifests stronger for high external eaters than for low external eaters.

METHODOLOGY

Participants

The participants of this study were undergraduate students recruited from a major North American university. They visited a computer lab on campus, where they looked at pictures of hypothetical food product package designs, and then answered questions regarding

their perceptions and expectations of the food contained in the packages. A course credit was offered as compensation for their participation. In a questionnaire, each participant was asked to indicate whether or not he/she has been diagnosed with color blindness or a color-related vision deficiency. According to their self-reported color blindness status, the responses of 40 participants who were not colorblind were included in the data analyses. Among the 40 participants, 22 of them were female, 16 of them were male, and two participants did not disclose their gender. All participants were aged from 19 to 24 (mean=21.32, SD=1.19).

Procedure and Measurements

To examine the package color effects, this study employed a 4 (products: breakfast cereal, ice-cream, iced tea, and yogurt) × 3 (package colors: red, blue, and green) × 2 (external eating: high vs. low) mixed design. The first two factors were within-subject repeated measures. Each of the 40 participants was exposed to 12 package stimuli combinations. Therefore, the total number of observations was 480 in this study (i.e., 12 package stimuli × 40 participants). The last is a between-subject factor. That is, the 40 participants were categorized into two groups by median splitting their external eating scores.

The stimuli in this study were pictures of 12 food/beverage packages (see the examples in the Appendix), which were all designed by a professional graphic designer. There were four products: breakfast cereal, yogurt, ice-cream and iced tea. Each product had three package designs with different dominant colors that covered over 90% of the area of the packages' principle display panels. The dominant package color used for each design was red (Hue: 0°), green (Hue: 120°) or blue (Hue: 240°), and all the colors printed on the packages were solid with 100% saturation and brightness.

The designer was instructed to follow the FDA food-labelling guide for the principle display panel and to use package shapes that were commonly used in the North American marketplace. All the packages carried a hypothetical brand name, "BISSEN" (i.e., "bite" in German), printed in the same font and

size. No participants indicated that they could read German. In the principle display panel, all the packages were also labeled with a product name and product volume/weight (e.g., cereal, 345 grams; yogurt, 100 grams; ice-cream, 1.66 liters; iced tea, 355 ml). The brand name, product names, and volume/weight labels were all printed in white against the dominant package color.

Upon their arrival in the lab, the participants first read the instructions and were asked to rate their feeling of hunger at that moment. Then, the pictures of packages were presented to the participants, one at each trial accompanied with one question. The package pictures were presented in the center of a computer screen against a white background, and all the computer screens used in this study were 17" LCD monitors consistently calibrated for brightness, contrast, and color temperature. To measure the participants' perceptions of the healthiness of the product contained in each package, a question was asked to have the participants indicate their "general impression of the healthiness of the contained food/beverage as compared to typical products in the same category" (anchored as 1–7: not healthy at all – very healthy). Another question asked the participants to rate their sweetness perceptions of the product contained in the package ("What do you think of the sweetness of the product compared with other products in the same category?" anchored as 1–7: not sweet at all – very sweet). Each participant was asked to answer both questions (i.e., the healthiness perception and the sweetness perception) for each of the package stimuli. Therefore, the total number of questions for each participant to answer was 24 (12 package pictures \times 2 questions). These 24 questions were asked in a random order.

The external eating was assessed by using a subscale of the Dutch Eating Behavior Questionnaire (van Strien, et al., 1986). The external eating scale is a ten-item measurement (anchored from 1 to 5, Cronbach's Alpha = 0.82) asking the participants to indicate their sensitivities to external food cues, such as the smell and sight of food. There was no gender difference found in the external eating score ($p > 0.4$). The participants were identified as high external or low external eaters on the basis

of a median split on their external eating scores (median: 3.5; low external eating group: $n = 21$; high external eating group: $n = 19$). At the end of the study, the participants were further asked to provide demographic information, including age, gender, language spoken at home, current dieting habits, and color blindness status. In all of the following analyses, effects of age, gender, or cultural background were found not significant, hence were excluded from the models reported in this paper.

RESULTS

In two separate analyses, the 40 participants' perceptions of sweetness and their healthiness perceptions on each of the 12 package stimuli were explained by a mixed model with repeated measures based on 480 observations in total. In this mixed model, the factors (i.e., fixed effects) included package colors (within-subject, 3-level: red, green and blue), and products (within-subject, 4-level: breakfast cereal, iced tea, ice cream, and yogurt), external eating (between-subject, high versus low external eaters), and all their two- and three-way interactions. Hunger feeling was a control variable (i.e., covariate), and its two-way interactions with external eating and color, as well as a three-way interaction of hunger feeling by external eating by color were also included in this model. As per the nature of repeated measures, a random intercept (i.e., variance of subject means) was included in this mixed model to control for the individual differences. Additionally, this model assumed the individual participant would have different preferences to the food products. Hence a random effect (i.e., product) was specified in the model as well. Furthermore, this model employed the "variance components" as its covariance structure with distinct variance components. In other words, the random intercept and the random product effect were estimated with no correlations. All the comparisons between group and marginal means were Bonferroni adjusted.

Sweetness Perception

To predict the participants' sweetness perceptions on the products, the main effect of package color ($F(2,284) = 8.56, p < 0.001$) was significant. In line with H_1 , the post-hoc comparisons revealed that the products

contained in the red packages were perceived as sweeter than those in the blue ($t(284)=7.56, p<0.001$) and green ($t(284)=7.36, p<0.001$) packages, and the latter two package colors were not significantly different in the associated sweetness perceptions. The main effect of the product itself was significant ($F(3,108)=7.92, p<0.001$), but as indicated by a non-significant interaction effect between product and package color ($p>0.3$), the effect of package color was not manifested differently across the four products (See Table 1).

The main effect of the external eating group was not significant in predicting the sweetness perception ($p>0.1$), but the interaction between the external eating group and the package color was significant ($F(2,284)=3.73, p=0.03$), which indicated that the difference between high and low external groups in terms of the sweetness perception was influenced differently by different package colors. The post-hoc group mean comparison supported the proposition of H_{4a} . That is, high external eaters were particularly sensitive to red package color but not to blue and green. As Figure 2 indicates, for red packaged products, high external eaters reported higher sweetness perceptions than low external eaters (estimated difference=0.55, $SD=0.27; p=0.05$). On the other hand, the comparison of sweetness perception between high and low external eaters was not significant for blue (est. diff.=0.01; $p=0.9$) and green colored packaged products (est. diff.=

0.13; $p>0.6$). The three-way interaction between color, product and external eating groups was not significant ($p>0.7$).

Healthiness Perception

In term of the healthiness perception, the main effect of package color was significant ($F(2,284)=10.87, p<0.001$). The multiple comparisons between marginal means were consistent with H_2 . Compared to products packaged in red packages, products in blue ($t(284)=5.22, p<0.001$) and green ($t(284)=4.73, p<0.001$) packages were perceived as healthier; and the difference for blue and green packages was not significant ($p=0.9$). This result indicates that blue and green packages were closely associated with healthy product perception. The main effect of the product itself was significant ($F(3,108)=9.85, p<0.001$), but the interaction between product and package color was not significant ($p>0.9$), which suggested that the effect of package color on healthiness perception was the same across different products (See Table 2).

As for predicting the healthiness perception of products, the main effect of the external eating group was not significant ($p>0.4$). Supporting H_{4b} , a significant interaction effect between the external eating group and package color ($F(2,284)=6.00, p=0.003$) indicates that the difference between high versus low external groups in healthiness perception was

TABLE 1:
The Mean (S.D.) of Sweetness Perceptions of Food Products
Contained in Packages with Different Colors

<i>Products</i>	Package Color		
	<u>Blue</u>	<u>Green</u>	<u>Red</u>
<i>Cereal</i>	3.92 (1.24) ^{ab}	3.71 (1.25) ^a	4.45 (1.33) ^b
<i>Ice-cream</i>	4.37 (1.75) ^a	4.21 (1.73) ^a	5.47 (1.27) ^b
<i>Iced tea</i>	4.11 (1.62) ^a	4.16 (1.52) ^a	5.24 (1.22) ^b
<i>Yogurt</i>	3.21 (1.30) ^a	3.63 (1.20) ^a	4.42 (1.33) ^b

Note: Within each row, the superscript letter of means indicates the result of multiple comparisons between estimated marginal means (Bonferroni); Means with same superscript letter were not significantly different (at $p<0.05$).

FIGURE 2:
The Mean Sweetness Perceptions of Food Products Contained in Packages with Different Colors, Separate for High and Low External Eating Groups

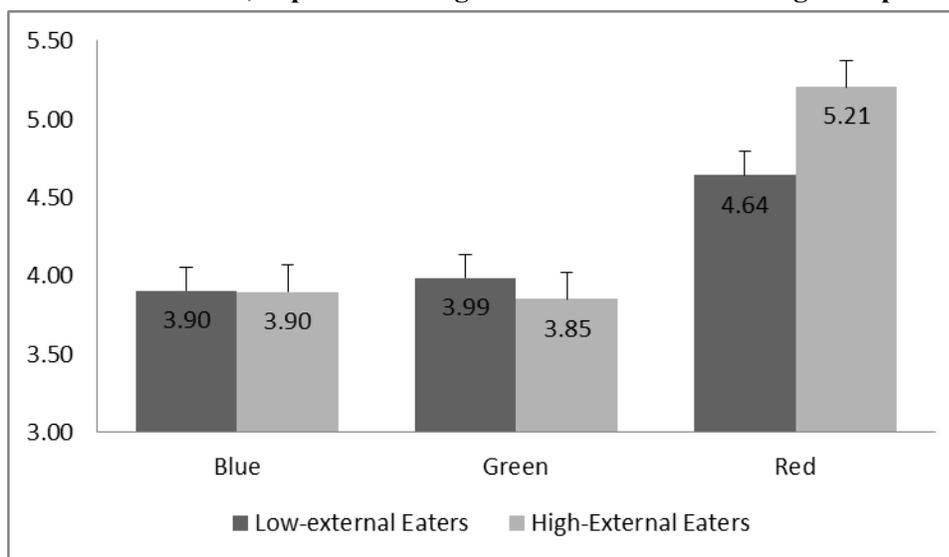


TABLE 2:
The Mean (S.D.) of Healthiness Perception of Food Products Contained in Packages with Different Colors

Products	Package Color		
	Blue	Green	Red
Cereal *	4.50 (1.27) ^a	4.47 (1.41) ^{ab}	3.92 (1.34) ^b
Ice-cream	3.89 (1.47) ^a	3.89 (1.35) ^a	3.26 (1.35) ^b
Iced tea	4.08 (1.12) ^a	4.13 (1.32) ^a	3.47 (0.98) ^b
Yogurt	5.08 (1.42) ^a	4.87 (1.28) ^{ab}	4.37 (1.30) ^b

Note: Within each row, the superscript letter of means indicates the result of multiple comparisons between estimated marginal means (Bonferroni); Means with same superscript letter were not significantly different (at $p < 0.05$).

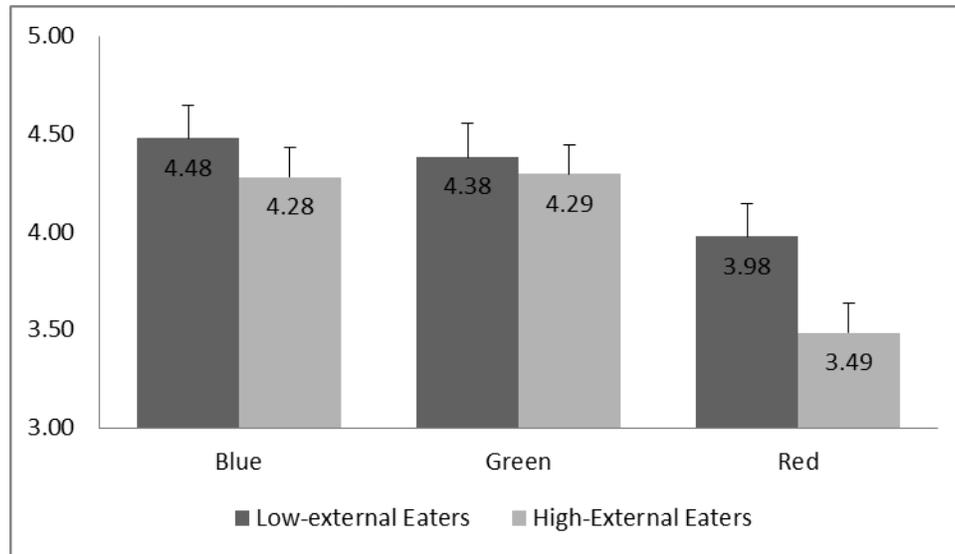
* For cereal products, the group mean comparisons between red and blue packages was marginally significant at $p = 0.06$

particularly salient for red packaged products but not for blue and green packaged foods. Figure 3 illustrates that, among red packaged products, high external eaters reported lower healthiness perception than low external eaters (est. diff. = -0.44; $p = 0.05$), whereas such a difference was not significant for blue (est. diff. = -0.21; $p > 0.3$) or green colored (est. diff. = -0.10; $p > 0.6$) packages. The three-way interactions among color, product and external eating groups were not significant ($p > 0.6$).

Mediating Effect of Sweetness Perception

To explore the mediating effect of the sweetness perception on the relationship between package color and healthiness perception (H_3), we followed the mediating analysis procedures proposed by Baron and Kenny (1986). Specifically, based on the results presented in the previous sections, the analysis of the effect of package color on the sweetness perception indicated that red was associated

FIGURE 3:
The Mean Healthiness Perception of Food Products Contained in Packages with Different Colors, Separate for High and Low External Eating Groups



with a sweeter taste perception (H_1), while blue and green package colors were associated with a healthier product perception (H_2). To further examine the mediating role of sweetness perception, two additional analyses were conducted. Figure 4 and Table 3 summarize the hypotheses testing and results.

In the first analysis, the healthiness perception was predicted by the sweetness perception (covariate), product (4-level within-subject factor) and the interaction in a mixed model for repeated measures. The results reveal a negative relationship between the sweetness perception and the healthiness perception. Products expected to be sweeter were perceived as less healthy ($b=-0.50$, $t(446)=7.06$, $p<0.001$), and no other effect was found significant. This analysis indicates that there was a direct, negative association between the sweetness perception and the healthiness perception.

The second analysis employed a mixed model for repeated measures to explain the healthiness perception. This model included package color, products, and external eating group as fixed factors, as well as their two- and three-way interactions. The sweetness perception was included as a covariate, and hunger feeling was also controlled in the model. The results indicate that the only significant effect was the

sweetness perception ($b=-0.47$, $t(415)=6.01$, $p<0.001$) whereas package color was not significant ($p=0.48$). This result suggests that while package color had significant (indirect) influence on the healthiness perception, such an effect was not significant after the sweetness perception was controlled, which indicated a mediating role of the sweetness perception.

DISCUSSION AND IMPLICATIONS

While research in marketing, psychology and food science has consistently associated food color with food-related perceptions, such as perceived flavor (Christensen, 1985; Garber, Hyatt, & Starr, 2000; Stillman, 1993), taste evaluation (Hoegg & Alba, 2007), and food liking or preference (Christensen, 1985; Compeau, Grewal, & Monroe, 1998), to date the influence of package color on taste and healthiness perception of food, has not been studied in depth. With the examination of how warm versus cool food package colors influence the perceptions of taste, one major contribution of this study is to start closing this gap in the literature by suggesting that the association between package color and food tastes is similar to the association between food color and tastes (e.g., sweetness). Furthermore, the results of the present study provide the empirical evidence showing that the food

TABLE 3:
The Summary Results of Tested Models

Dependent Variables: <i>Independent Variables</i>	<u>Perception of Sweetness</u>	<u>Healthiness Perception</u>	<u>Healthiness Perception</u>	
			Analysis 1	Analysis 2
<i>Product</i>	F(3,108)=7.92*	F(3,108)=9.85*	F(3,416)=0.8	F(3,379)=0.29
<i>Color</i>	F(2,284)=8.56*	F(2,284)=10.87*	-	F(2,301)=0.73
<i>Product * Color</i>	F(6,284)=1.15	F(6,284)=0.13	-	F(6,301)=0.20
<i>External Eating (EE)</i>	F(1,34)=2.83	F(1,34)=0.61	-	F(1,34)=0.11
<i>Color * EE</i>	F(2,284)=3.73*	F(2,284)=6.00*	-	F(2,288)=0.04
<i>Product * EE</i>	F(3,108)=0.40	F(3,108)=0.05	-	F(3,107)=0.35
<i>Product * Colour * EE</i>	F(6,284)=0.67	F(6,284)=0.69	-	F(6,288)=1.50
<i>Hungry</i>	F(1,34)=0.03	F(1,34)=0.59	-	F(1,34)=0.69
<i>EE * Hungry</i>	F(1,34)=4.18**	F(1,34)=1.84	-	F(1,34)=0.02
<i>Perception of Sweetness</i>	-	-	F(1,456)=212.7*	F(1,419)=176.41*
<i>Sweetness * Product</i>	-	-	F(3,449)=0.3	F(3,403)=0.29

* Significant at $p < 0.01$; ** significant at $p < 0.05$

product healthiness judgment is often influenced by factors beyond cognitive information. We argue that food choices and decisions result from a compound set of interwoven internal and external factors. Our results suggest that package color, an external cue that does not reveal any nutritional facts, can influence cognitive judgment of food product healthiness.

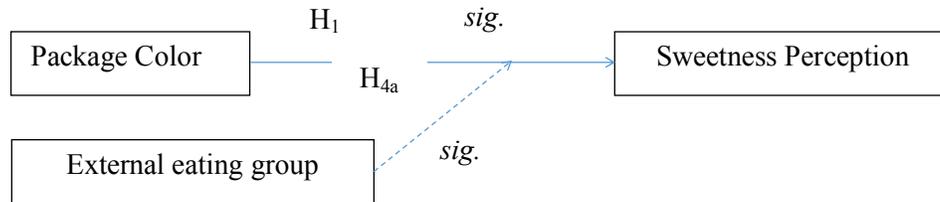
The food color research suggests that color influences people’s perception of taste intensity (Johnson & Clydesdale, 1982) and this study demonstrates that the color-taste association may further influence the perception of food healthiness. For all the products included in this study, red packages were associated with a less healthy perception than green and blue packages, whereas green and blue packages were tied to healthier food perception. Interestingly enough, the mediating analysis in this study provides an explanation that food in

red packages is perceived sweeter than food in other package colors, and sweetness is often intuitively related to the expectation of unhealthy food (Raghunathan, et al., 2006). As a result, red packaged food was perceived as sweeter taste but unhealthy.

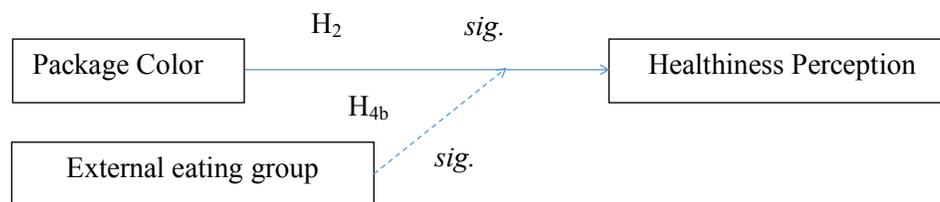
Comparing red with green or blue packaged foods, we find that high external eaters perceived sweeter taste and less healthiness for red packages than did low external eaters. Over the past decade, an increased focus on individual differences has been a noticeable characteristic of behavioral decision research that relates to psychosocial variables such as motivational, cognitive and affective processes. The existing research mainly focuses on demonstrating the attention biases to food related cues among external eaters, and such biases subsequently lead to overeating as compared with non-external eaters (Brignell, et al., 2009; van Strien, Herman, & Verheijden,

FIGURE 4:
Summary of Hypotheses and Test Results

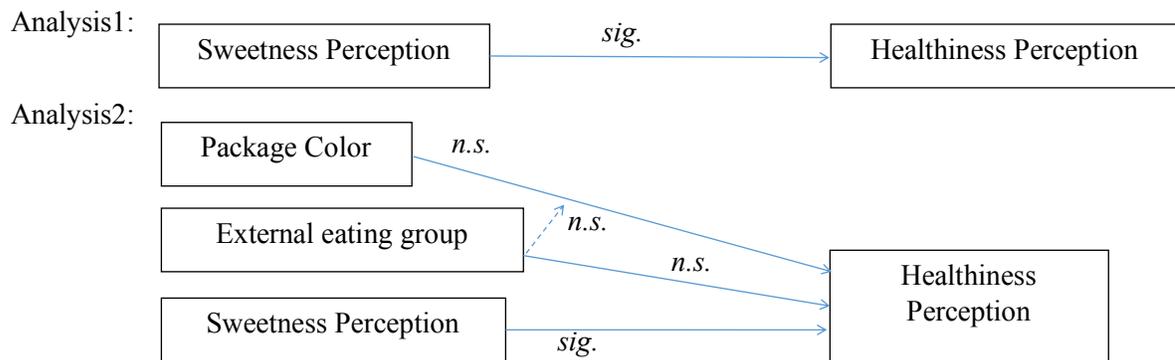
Panel-A: H₁ and H_{4a} - Package color and external eating group predict sweetness perception.



Panel-B: H₂ and H_{4b} - Package color and external eating group predict healthiness perceptions.



Panel-C (H₃): Analysis1 – Sweetness perception predicts healthiness perception; Anlysis2 - Package color, external eating group, and sweetness perception predict healthiness perceptions.



Note: In all these testing models, although “product” was also included as a within-subject factor, the between-product difference was not a focal effect to be tested. As a result, it is not included in this figure. sig.: the relationship was significant (p<0.05); n.s.: the relationship was not significant; dashed lines indicate the moderating effects.

2009). This study reveals that external eaters may interpret the external stimuli, such as package color differently, such that their attentional biases to the sensory cues further “amplify” the effect of external cues (e.g., red) on hedonic value inference (e.g., sweetness taste), which may lead to maladaptive eating patterns. Our study has exhibited a pattern that external eating moderated the effect of package color on hedonic evaluation. That is, confronted with red packaged foods, high external eaters

perceived sweeter taste than did low external eaters.

Another contribution of this research results from highlighting the complex reasons why certain external eaters perceive certain package colors (e.g. red) as less healthy than others. Such differences likely arise from the fact that high external eaters are more sensitive to attentional biases to hedonic value, and this may lead to the opinion or prejudgment of

product healthiness based on the interpretation of the package color. Red is perceived sweeter taste by high rather than low external eaters on account of the different intensity of hedonic value derived from food consumption.

Color affects the human mind and body in various ways. These influences suggest that certain colors appeal to us while others repel us. The use of color in and of itself is not an assurance of success, and an in-depth understanding of psychological reactions to package color is of scientific and empirical interest. From the consumer perspective, the current study has implications for understanding individual differences in cognitive-behavioral responses to an important external food cue, namely, package color. The present findings can be particularly relevant in situations where consumers have different goals in food choices, such as pleasure seeking and/or healthy consumption. Individuals with such different goals present different sensitivities in the perception of sweetness taste and healthiness based on their interpretation of the package color. This mechanism underlies not only the ability to balance cognitive and behavioral responses to motivationally salient stimuli more generally but also, more specifically, cognitive-behavioral responses to food in terms of both sweetness taste and healthiness.

Managerial Implications

First, the current research has significant managerial implications for food manufacturers. Taste and healthiness perceptions are two important attributes that influence consumers' food choice and consumption. Our research findings suggest that the package color is a critical marketing cue about the taste and healthiness perceptions of food products at the point of purchase. Keeping up with the trend of healthiness consumptions, the front-of-package of food products is often cluttered with cognitive information, such as health benefit claims, nutrition content claims, various certificates (e.g., organic, natural, and non-GMO), and other textual descriptions. However, consumers may misinterpret, mistrust, or simply ignore these hard-to-process cluttered messages (Keller et al., 1997; Walters & Long, 2012)

since a particular product category display typically has, on average, less than a 12-second window in front of the consumer in a retailing environment (Dickson & Sawyer, 1990). The results of this study demonstrated that package color, as a visual marketing cue, might work through an affective or peripheral route to communicate the key information with consumers. Specifically, the associations of "red = tasty" and "blue/green = healthy" revealed in our study have provided an evidence-based guidelines for package design aligning messages relating to product attributes with visual appearance.

Second, the findings of our study highlight that using warm/cold colors to suggest taste/healthiness perceptions of food products should be applied with caution in developing marketing competition strategies. Although the mediating effect of taste on the relationship between package color and healthiness perception in our study is consistent with consumers' intuition of "unhealthy = tasty" (Raghunathan, et al., 2006), blue or green packaging may imply that the product is superior to the health-related attributes while they may not be able to compete with red packaging in the perceived taste dimension. In order to build effective and competitive marketing strategies, marketers may need to integrate such tactics as sampling and opinion leaders' endorsement on taste to compensate the negative impact of blue/green packages on the hedonic attributes. It is important to trigger and reinforce as many senses and symbolic meanings as possible since food has the advantage of evoking taste, smell, memories and feelings.

Finally, the empirical results of this research can benefit brand positioning and/or repositioning strategies. Given that many less healthy products in the marketplace are packaged in warm colored packages to stimulate consumption, our results suggest that external eaters may be particularly vulnerable to such stimuli. Going beyond the package, fast food industry has also shown the effective usage of red as an environmental cue. For example, red is intensively used by McDonald's and Burger King in their wrapping papers, food trays, logos, and restaurant decorations to stimulate consumption, as red arouses the taste buds and induces the appetite (Reutner et al., 2015).

Nowadays more and more managers, however, have started to work on improving or changing the unhealthy brand image of this industry. Furthermore, the fast food industry is also undergoing a transition by reducing fat/sugar/sodium contents in their food on the menus, adopting healthier food processing methods, and offering healthier alternatives in their product lines. Along with such industrial trends, another implication of the current research is that the managers who are repositioning the fast food restaurants as less unhealthy may need to strategically reassess the color scheme of the corporate visual identity in terms of logos, architectural elements, product packages, and other environmental cues to be consistent with the new corporate image that they are trying to build.

Limitations and Future Research

Collectively, our findings contribute to the emerging literature on how extrinsic variables can influence food perception emphasizing that this effect is dependent on the specific package color presented, and that results in real life scenarios can be somewhat lessened as compared to laboratory conditions. Undoubtedly, more research is needed to confirm the validity and robustness of such results. Looking ahead, it might be possible to adopt the amount of actual food consumption as one of the dependent measures. This experiment asked the participants to answer two questions regarding each of the 12 package stimuli, which may have caused some of the participants to feel tedious during the study. To avoid having the participants repeatedly answer the same question too many times, future large-scale studies may adopt a between-subject design and assign the participants into different color conditions. Finally, the experimental study reported here utilized relatively small convenience samples of college students from a North American university. The use of such participants may limit the generalizability of these results. Future research may fruitfully explore whether these effects can be replicated among other populations.

American consumers tend to over consume foods perceived as unhealthy because they spontaneously and sometimes unconsciously consider that such foods taste better than

healthy food (Raghunathan, et al., 2006). However, a recent study (Werle, Trendel, & Ardito, 2013) argues that the assumption that unhealthy food tastes better may be true only for consumers in the U.S.A., because the results from their studies demonstrate an opposite intuition that exists in France: unhealthy food is implicitly associated with bad taste while healthy food is linked to tastiness. In addition to the explanation of intercultural differences between American and French consumers, another critical influence on the individual's food healthiness perception may be the cultural meanings of colors. Thus, we suggest future studies extend the analysis to consider different cultural backgrounds and scenarios so as to analyze changes in the perception of one particular package color of the same food category depending on the regions where it is marketed.

Finally, the stimuli used in this research are naturally linked to one dimension of taste, sweetness. Future research can examine the impact of other aspects of taste, such as salty flavor, on the health perception. Although the findings from this research are consistent with the literature that green or blue packages signalize healthy and less sweet taste while red packages represent tasty and less healthy alternatives, marketers have also provided exceptions in the use of blue or green packages, such as Oreos, Apple Jacks, etc. Therefore, future research may employ other categories of food for examination to increase the face validity of the current research.

REFERENCES

- Aslam, M. M. (2006). Are you selling the right colour? A cross - cultural review of colour as a marketing cue. *Journal of Marketing Communications*, 12(1), 15-30.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Barsalou, L. W. (1999). Perceptual symbol systems. *Behavioral and Brain Sciences*, 22 (04), 577-660.

- Bellizzi, J. A., & Hite, R. E. (1992). Environmental color, consumer feelings, and purchase likelihood. *Psychology & Marketing*, 9(5), 347-363.
- Bottomley, P. A., & Doyle, J. R. (2006). The interactive effects of colors and products on perceptions of brand logo appropriateness. *Marketing Theory*, 6(1), 63-83.
- Brignell, C., Griffiths, T., Bradley, B. P., & Mogg, K. (2009). Attentional and approach biases for pictorial food cues. Influence of external eating. *Appetite*, 52(2), 299-306. doi: 10.1016/j.appet.2008.10.007
- Burton, P., Smit, J. H., & Lightowler, J. H. (2007). The influence of restrained and external eating patterns on overeating. *Appetite*, 49(1), 191-197. doi: 10.1016/j.appet.2007.01.007
- Cardello, A. V. (1996). The role of the human senses in food acceptance. In H. L. Meiselman & H. J. H. MacFie (Eds.), *Food choice, acceptance and consumption* (pp. 1-82). New York, NY: Springer.
- Christensen, C. M. (1985). Effect of color on judgments of food aroma and flavour intensity in young and elderly adults. *Perception*, 14(6), 755-762.
- Clarke, T., & Costall, A. (2008). The emotional connotations of color: A qualitative investigation. *Color Research & Application*, 33(5), 406-410. doi: 10.1002/col.20435
- Clydesdale, F. M. (1993). Color as a factor in food choice. *Critical Reviews in Food Science and Nutrition*, 33(1), 83-101. doi: 10.1080/10408399309527614
- Compeau, L. D., Grewal, D., & Monroe, K. B. (1998). Role of prior affect and sensory cues on consumers' affective and cognitive responses and overall perceptions of quality. *Journal of Business Research*, 42(3), 295-308.
- Connell, L. (2007). Representing object colour in language comprehension. *Cognition*, 102(3), 476-485.
- Conner, M., Norman, P., & Bell, R. (2002). The theory of planned behavior and healthy eating. *Health Psychology*, 21(2), 194-201. doi: 10.1037/0278-6133.21.2.194
- Cowburn, G., & Stockley, L. (2005). Consumer understanding and use of nutrition labelling: a systematic review. *Public Health Nutrition-Wallingford*, 8(1), 21-28.
- Deliza, R., Macfie, H. A. L., & Hedderley, D. (2003). Use of computer-generated images and conjoint analysis to investigate sensory expectations. *Journal of Sensory Studies*, 18(6), 465-486. doi: 10.1111/j.1745-459X.2003.tb00401.x
- Dickson, P. R., & Sawyer, A. G. (1990). The price knowledge and search of supermarket shoppers. *The Journal of Marketing*, 42-53.
- DuBose, C. N., Cardello, A. V., & Maller, O. (1980). Effects of colorants and flavorants on identification, perceived flavor intensity, and hedonic quality of fruit-flavored beverages and cake. *Journal of Food Science*, 45(5), 1393-1399. doi: 10.1111/j.1365-2621.1980.tb06562.x
- Elliot, A. J., & Maier, M. A. (2007). Color and psychological functioning. *Current Directions in Psychological Science*, 16(5), 250-254. doi: 10.1111/j.1467-8721.2007.00514.x
- Garber, L. L. J., Hyatt, E. M., & Starr, R. G. J. (2000). The effects of food color on perceived flavor. *Journal of Marketing Theory and Practice*, 8(4), 59-72.
- Grossman, R. P., & Wisenblit, J. Z. (1999). What we know about consumers' color choices. *Journal of marketing practice: Applied marketing science*, 5(3), 78-88.
- Hanss, D., Böhm, G., & Pfister, H.-R. (2012). Active red sports car and relaxed purple-blue van: affective qualities predict color appropriateness for car types. *Journal of Consumer Behaviour*, 11(5), 368-380.
- Harper, G. C., & Makatouni, A. (2002). Consumer perception of organic food production and farm animal welfare. *British Food Journal*, 104(3/4/5), 287-299. doi: 10.1108/00070700210425723
- Hoegg, J., & Alba, J. W. (2007). Taste perception: more than meets the tongue. *Journal of Consumer Research*, 33(4), 490-498.
- Holmes, C. B., & Buchanan, J. A. (1984). Color preference as a function of the object described. *Bulletin of the Psychonomic Society*, 22(5), 423-425.
- Hou, R., Mogg, K., Bradley, B. P., Moss-Morris, R., Peveler, R., & Roefs, A. (2011). External eating, impulsivity and attentional bias to food cues. *Appetite*, 56(2), 424-427. doi: 10.1016/j.appet.2011.01.019

- Huang, L., & Lu, J. (2013). When color meets health: The impact of package colors on the perception of food healthiness and purchase intention. In S. Botti & A. Labroo (Eds.), *Advances in Consumer Research* (Vol. 41, pp. 625-626). Duluth, MN: Association for Consumer Research.
- Hughner, R. S., McDonagh, P., Prothero, A., Shultz, C. J., & Stanton, J. (2007). Who are organic food consumers? A compilation and review of why people purchase organic food. *Journal of Consumer Behaviour*, 6(2-3), 94.
- Hurvich, L. M., & Jameson, D. (1957). An opponent-process theory of color vision. *Psychological Review*, 64(6, Pt.1), 384-404. doi: 10.1037/h0041403
- Johnson, J., & Clydesdale, F. M. (1982). Perceived sweetness and redness in colored sucrose solutions. *Journal of Food Science*, 47(3), 747-752. doi: 10.1111/j.1365-2621.1982.tb12706.x
- Kaya, N., & Epps, H. H. (2004). Relationship between color and emotion: A study of college students. *College Student Journal*, 38(3), 396-406.
- Keller, S. B., Landry, M., Olson, J., Velliquette, A. M., Burton, S., & Andrews, J. C. (1997). The effects of nutrition package claims, nutrition facts panels, and motivation to process nutrition information on consumer product evaluations. *Journal of Public Policy & Marketing*, 16(2), 256-269.
- Lavin, J. G., & Lawless, H. T. (1998). Effects of color and odor on judgments of sweetness among children and adults. *Food Quality and Preference*, 9(4), 283-289.
- LeBel, J. L., Lu, J., & Dubé, L. (2008). Weakened biological signals: Highly-developed eating schemas amongst women are associated with maladaptive patterns of comfort food consumption. *Physiology & Behavior*, 94(3), 384-392.
- Limon, Y., Kahle, L. R., & Orth, U. R. (2009). Package design as a communications vehicle in cross-cultural values shopping. *Journal of International Marketing*, 17(1), 30-57. doi: 10.1509/jimk.17.1.30
- Loersch, C., & Bartholow, B. D. (2011). The color of safety: Ingroup-associated colors make beer safer. *Journal of Experimental Social Psychology*, 47(1), 190-194.
- Maga, J. A. (1974). Influence of color on taste thresholds. *Chemical Senses*, 1(1), 115-119.
- Maier, M. A., Barchfeld, P., Elliot, A. J., & Pekrun, R. (2009). Context specificity of implicit preferences: the case of human preference for red. *Emotion*, 9(5), 734.
- Mehta, R., & Zhu, R. J. (2009). Blue or red? Exploring the effect of color on cognitive task performances. *Science*, 323(5918), 1226-1229.
- Moller, A. C., Elliot, A. J., & Maier, M. A. (2009). Basic hue-meaning associations. *Emotion*, 9(6), 898-902.
- Neimeijer, R. A. M., de Jong, P. J., & Roefs, A. (2013). Temporal attention for visual food stimuli in restrained eaters. *Appetite*, 64(0), 5-11.
- Newman, E., O'Connor, D. B., & Conner, M. (2008). Attentional biases for food stimuli in external eaters: Possible mechanism for stress-induced eating? *Appetite*, 51(2), 339-342. doi: 10.1016/j.appet.2008.03.007
- Niesta Kayser, D., Elliot, A. J., & Feltman, R. (2010). Red and romantic behavior in men viewing women. *European Journal of Social Psychology*, 40(6), 901-908. doi: 10.1002/ejsp.757
- Nijs, I. M. T., Franken, I. H. A., & Muris, P. (2009). Enhanced processing of food-related pictures in female external eaters. *Appetite*, 53(3), 376-383. doi: 10.1016/j.appet.2009.07.022
- Orth, U. R., & Malkewitz, K. (2008). Holistic package design and consumer brand impressions. *Journal of Marketing*, 72(3), 64-81. doi: 10.1509/jmkg.72.3.64
- Pangborn, R. M. (1960). Influence of color on the discrimination of sweetness. *The American Journal of Psychology*, 229-238.
- Ragunathan, R., Naylor, R. W., & Hoyer, W. D. (2006). The unhealthy = tasty intuition and its effects on taste inferences, enjoyment, and choice of food products. *Journal of Marketing*, 70(4), 170-184. doi: 10.2307/30162121
- Reutner, L., Genschow, O., & Wänke, M. (2015). The adaptive eater: Perceived healthiness moderates the effect of the color red on consumption. *Food Quality & Preference*, 44, 172-178. doi:10.1016/j.foodqual.2015.04.016
- Rodin, J., & Slochower, J. (1976). Externality in the nonobese: Effects of environmental responsiveness on weight. *Journal of Personality and Social Psychology*, 33(3), 338-344. doi: 10.1037/0022-3514.33.3.338

- Schuldt, J. P. (2013). Does green mean healthy? Nutrition label color affects perceptions of healthfulness. *Health Communication, 28*(8), 814-821.
- Singh, S. (2006). Impact of color on marketing. *Management Decision, 44*(6), 783-789.
- Spence, C., Levitan, C., Shankar, M., & Zampini, M. (2010). Does food color influence taste and flavor perception in humans? *Chemosensory Perception, 3*(1), 68-84. doi: 10.1007/s12078-010-9067-z
- Stillman, J. A. (1993). Color influences flavor identification in fruit-flavored beverages. *Journal of Food Science, 58*(4), 810-812.
- Strugnell, C. (1997). Colour and its role in sweetness perception. *Appetite, 28*(1), 85-85.
- Tam, L., Bagozzi, R. P., & Spanjol, J. (2010). When planning is not enough: The self-regulatory effect of implementation intentions on changing snacking habits. *Health Psychology, 29*(3), 284-292. doi: 10.1037/a0019071
- van Buul, V. J., & Brouns, F. J. P. H. (2013). Nutrition and health claims as marketing tools. *Critical Reviews in Food Science and Nutrition*, ahead of printing. doi: 10.1080/10408398.2012.754738
- van Strien, T., Frijters, J. E. R., Bergers, G. P. A., & Defares, P. B. (1986). The Dutch Eating Behavior Questionnaire (DEBQ) for assessment of restrained, emotional, and external eating behavior. *International Journal of Eating Disorders, 5*(2), 295-315.
- van Strien, T., Herman, P. C., & Verheijden, M. W. (2009). Eating style, overeating, and overweight in a representative Dutch sample. Does external eating play a role? *Appetite, 52*(2), 380-387.
- Vasiljevic, M., Pechey, R., & Marteau, T. M. (2015). Making food labels social: The impact of colour of nutritional labels and injunctive norms on perceptions and choice of snack foods. *Appetite, 91*(1), 56-63. doi: 10.1016/j.appet.2015.03.034
- Walsh, L. M., Toma, R. B., Tuveson, R. V., & Sondhi, L. (1990). Color preference and food choice among children. *The Journal of Psychology, 124*(6), 645-653.
- Walters, A., & Long, M. (2012). The effect of food label cues on perceptions of quality and purchase intentions among high-involvement consumers with varying levels of nutrition knowledge. *Journal of Nutrition Education and Behavior, 44*(4), 350-354.
- Wansink, B., & Park, S. (2001). At the movies: how external cues and perceived taste impact consumption volume. *Food Quality and Preference, 12*(1), 69-74.
- Wansink, B., & Sobal, J. (2007). Mindless eating: The 200 daily food decisions we overlook. *Environment and Behavior, 39*(1), 106-123.
- Werle, C. O. C., Trendel, O., & Ardito, G. (2013). Unhealthy food is not tastier for everybody: The "healthy = tasty" French intuition. *Food Quality and Preference, 28*(1), 116-121.

APPENDIX:
Package Picture Stimuli Examples Presented in the Study



The colors used for the package design: Red (Hue: 0°), Green (Hue: 120°) and Blue (Hue: 240°). All the colors were with 100% saturation and brightness.

EXAMINING THE RELATIONSHIP BETWEEN STAR PLAYER CHARACTERISTICS AND BRAND EQUITY IN PROFESSIONAL SPORT TEAMS

N. DAVID PIFER, University of Georgia

JENNIFER Y. MAK, Marshall University

WON-YUL BAE, Ithaca College

JAMES J. ZHANG, University of Georgia

The overarching purpose of this study was to examine the impact of star athletes on the consumer-based brand equity of professional sport teams. Through a comprehensive review of literature and a test of content validity by an expert panel, preliminary scales were developed to measure the characteristic attributes of star athletes and the areas of brand equity that were affected by these traits. Research participants (N = 195) were professional sport fans that responded to a survey questionnaire in a classroom setting. After conducting factor analyses on the results, two factors (On-Field and Off-Field) for the star characteristic variables and six factors (Brand Loyalty, Brand Awareness, Brand Image, Brand Value, Perceived Quality, and Brand Reputation) for the areas of brand equity emerged. Multiple regression analyses revealed that the On-Field and Off-Field factors combined to exert the greatest, significant effects on the Brand Awareness and Brand Image components.

INTRODUCTION

In the professional sport realm where existing franchises face steep competition for the consumer dollar from rival teams and opposing forms of entertainment (Ross, 2007), being able to gain distinction amongst firms in a crowded marketplace can be of immense value. Branding, which exists to create differences, has therefore become an important topic of study across the broad spectrum of marketing. In particular, the concept of brand equity, which represents the value added to a product by its brand (Aaker, 1991, 2013; Keller 1993), has received considerable attention in both the sport and corporate realms.

Sport marketing scholars and team managers alike have long focused on the driving factors of brand equity in professional sport as they seek to better understand the market demand for sporting event products and the brand-related strategies that teams can employ to exert an effect on consumer actions. Such attention is warranted as customer participation and loyalty are vital at nearly every level of professional

sport, from the league-wide broadcast deals that fund teams' roster-building projects to the home-field advantages that transform team stadiums into formidable environments for visiting opponents. Numerous factors including stadium attractiveness, strength of schedule, star players, location, logo design, head coaches, and success have all been examined in an effort to better explain what it is that creates brand equity and attracts and retains consuming fans who are capable of investing in teams through actual game attendance, merchandise purchases, media consumption, and other areas (Gladden & Funk, 2002; Gladden & Milne, 1999; Hansen & Gauthier, 1989; Kaynak, Salman, & Tatoglu, 2007; Zhang, Lam, & Connaughton, 2003).

Nevertheless, one of the factors playing a key role in the generation of brand equity, star players, has remained surprisingly unexplored in its specific impact on the development of brand equity in professional sport teams. While numerous studies have depicted a positive relationship between star players and brand equity, the in-depth connections between these two areas remain rather vague and uncharted. Such vagueness is perplexing given that star players are a fundamental element of any professional sport team and command a

massive chunk of the revenues that franchises strive so hard to attain. In Europe's top professional soccer leagues, for example, somewhere between 50-70% of team revenues are consumed by player wages (Deloitte, 2013). This does not even include the exorbitant transfer fees, now ranging into the hundreds of millions (Deloitte, 2013), that are often required to sign a top player away from another team. In American leagues like the NBA, MLB, and NFL, close to 50% of league revenues are also shared with the athletes, and each year vital draft picks are expended with the expectation that selected players will contribute to a team's performance (Leeds & Von Allmen, 2013). With so many resources invested in the top athletes, an analysis into their specific effects on a team's brand becomes warranted because, like brands, players exist to create differences by using their unique abilities to distinguish teams from one another on and off the field of play.

By possessing some combination of star power qualities, athletes are in many ways brands of their own that are capable of imputing value from their personal identities to the identities of their teams. It is therefore surprising that many of the assessments on the antecedents of brand equity in professional sport teams have shallowly touched upon star players and ignored their unique superstar characteristics. While common sense dictates that a star player possesses qualities unique from those of a standard player, these qualities may vary from one star athlete to another and pose differing effects on a team's brand development. In addition, while certain studies have attempted to connect star players to general areas of brand equity such as brand associations and brand awareness (Gladden & Funk, 2002; Kaynak et al., 2007; Ross, James, & Vargas, 2006), none have attempted to simultaneously assess athletes' unique and specific effects on the numerous components that are known to play a part in the establishment of brand equity.

In an effort to better understand the seemingly fundamental and important relationship between star players and teams' brand equities, the investigators of this study drew from the extant star power and branding literature to develop a survey questionnaire assessing star player characteristics and their effects on the

areas of brand equity development that are important to professional teams. The investigators administered the survey to fans of professional sport teams as they sought the answer to the following research questions:

1. What characteristics constitute a true star player?
2. Which components of a team's brand equity are directly affected by star player characteristics?

CONCEPTUAL BACKGROUND

Kotler (1991) defines a brand as a name, term, sign, symbol, design, or some combination of them, which is intended to identify the goods and services of one seller or group of sellers and differentiate them from those of competitors. Professional sport organizations are certainly no exception to this definition as they seek to build and differentiate their team brands amidst crowded sport and entertainment environments. Faced with stiff competition in a saturated marketplace, sport franchises have been forced to develop advantageous marketing and branding strategies in their efforts to reach consumers (Ross, 2007; Zhang et al., 2003). Through this process teams seek to develop what Keller (1993) termed as brand equity—the marketing effects uniquely attributable to the brand.

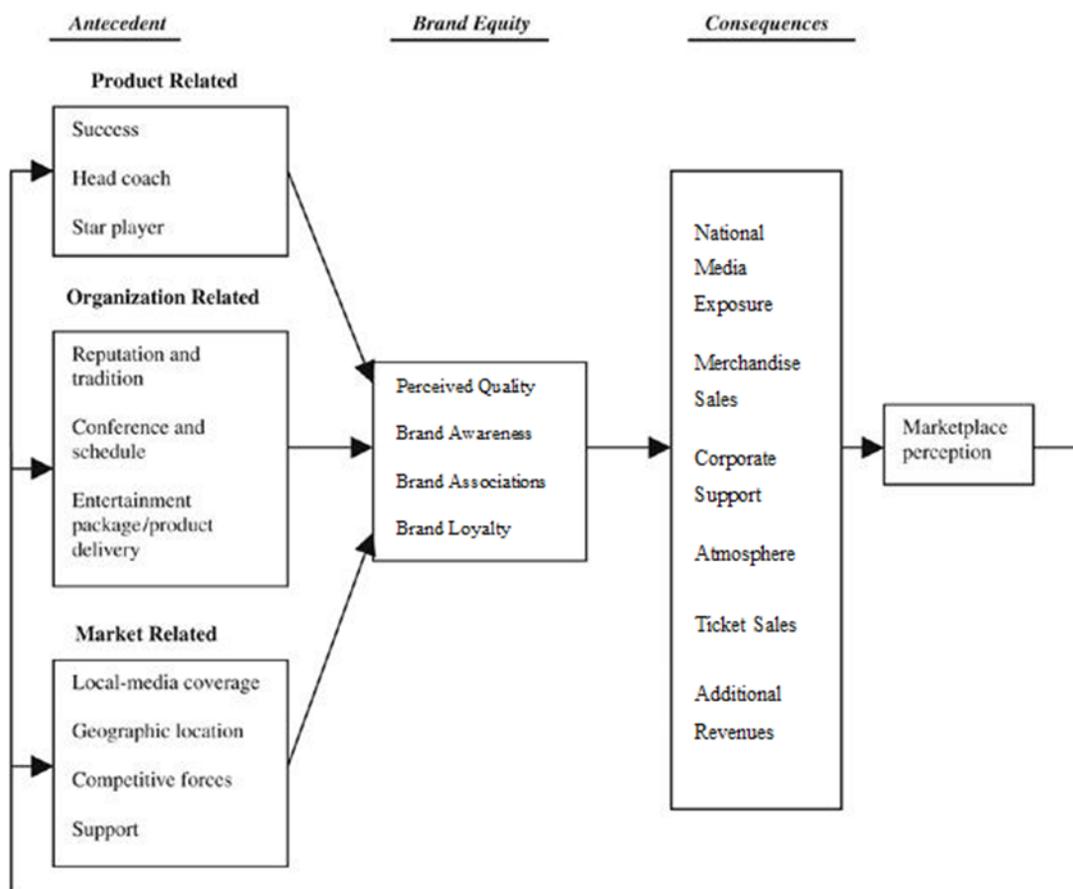
Aaker (1991) and Keller (1993) developed the initial concept of brand equity in general marketing literature and laid the foundation for future studies on the topic. In the athletic realm, the concepts of team branding and brand equity have been thoroughly examined by Gladden and Milne (1999), the duo responsible for developing a framework used to assess the antecedents and consequences of brand equity in professional sport. Their model, seen in Figure 1, was based on Aaker's seminal concepts and categorized star players as team-related antecedents to brand equity, thereby visualizing the very relationship that the current study seeks to expound upon. The framework also subdivided brand equity into the additional dimensions of brand awareness, perceived quality, brand associations, and brand loyalty that are key to its development (Aaker, 1991, 2013). The consequences and marketplace perceptions conceptualized as the culmination of the product-equity relationship display the

resultant value that can be obtained from a healthy brand equity and consumer following. This seminal model has since been adapted to additional studies that have sought to explain various aspects of branding in professional team sports. However, while the conceptualizations and focuses of this framework and its successors have typically included a wide array of antecedents, they have been somewhat shallow and inadequate in their descriptions of certain precursory attributes. As such, star players have been generically defined and grouped alongside a host of other variables associated with the development of brand equity in professional sport teams.

various product and organizational-related antecedents of professional sport teams, such as coaches, stadiums, and logos, but to zero in on what is perhaps the most fundamental attribute to a team, the players. As such, the authors sought to provide a more detailed explanation of how players are differentiated as superstars and how this differentiation can lend itself to a team’s brand. To accomplish this, a more in-depth understanding of the star power characteristics that compose marquee athletes must be obtained because such intricacies are notably absent from extant team-branding literature. Advantageously, studies of star power have been conducted in the sponsorship and endorsement tracks of sport marketing literature (Braunstein & Zhang, 2005; Henseler, Wilson, Götz, & Hautvast, 2007; Stuart, 2007)

In the current study, the intention was not to comparatively explain the importance of

FIGURE 1:
Gladden and Milne’s Framework for Assessing Brand Equity in Professional Sport. Adapted from “Examining the Importance of Brand Equity in Professional Sports,” by J. Gladden and G. Milne, 1999, *Sport Marketing Quarterly*, 8, pp. 21-29.



and in theoretical constructs such as the source credibility model, meaning transfer model, and product match-up hypothesis (Kamins, 1990; McCracken, 1989; McGuire, 1968). With careful articulation, these models could be applicable to a player within the context of a team's brand.

The Development of Brand Equity

The general concept of branding is often discussed in terms of how to develop, manage, and measure brand equity. Brand equity represents the positive or negative associations with a brand name that adds to, or subtracts from, the value provided by the product. Essentially, it is the value of having a well-known brand name as those firms experiencing high levels of brand equity realize outcomes unattainable by identical products and services with different brand names (Aaker, 1991; Keller, 1993).

Aaker (1991) initially theorized brand equity to encompass four major components: brand awareness, perceived quality, brand associations, and brand loyalty. Brand awareness is the familiarity of the consumer with a particular brand. Perceived quality consists of consumer judgments of a product's overall excellence relative to its intended purpose. Brand associations are mental connections, often experiential, that consumers make with a particular brand. Brand loyalty is the ability to attract and retain customers. Though Aaker did not propose a specific measure of brand equity, he believed these four components were inherent to its generation. More recently, Aaker (2013) sought to combine some of these constructs into a more parsimonious model. Labelling perceived quality as a type of brand association, this subsequent framework varies slightly from its predecessor, but nonetheless conveys the same message that a well-developed brand is valuable to marketers, management, and value-seeking consumers.

In another early examination, Keller (1993) defined brand equity as the marketing effects uniquely attributable to a brand. In developing a *customer-based* measure of brand equity that focused on consumer response to the marketing of a brand, Keller asserted that equity occurs

when customers are aware of a brand and hold favorable, strong, and unique brand associations in their memories. Together, these aggregated brand associations form the brand's image which, along with brand awareness, serves as a key generator of brand equity amongst consumers.

These various dimensions such as brand awareness and brand image that are nested within the overall concept of brand equity are therefore seen as elements fundamental to its development. In order to create and sustain a valuable brand, proper attention and analysis should be paid to these areas and how consumers respond to them. To begin, it should be noted that consumers develop familiarity with a brand through the process of *brand awareness*. This phase involves the consumer's recognition and remembrance of a brand name, particularly as it relates to the likelihood that a brand name will come to one's mind and the ease with which it does so (Aaker, 1991; Keller, 1993; Shank, 2009). After an awareness of the brand has been established, a *brand image* can then be developed through marketing efforts. Brand image can be thought of as a consumer's beliefs about a brand, which in turn shape attitudes toward it (Shank, 2009). In essence, it is a collection of *brand associations* that shape the consumer's perceptions of a brand (Aaker, 1991; Keller, 1993). These perceptions are important as judgments of a product's overall excellence relative to its intended purpose denote the brand's *perceived quality*. A progressive brand image and good perceptions of brand quality would lead to high levels of *brand equity*, the value that the brand contributes to the product in the marketplace. With this equity established, customers will likely become consistent, repeat purchasers of the brand over other products in the market, creating a *brand loyalty* that further enhances the organization's distinct value (Aaker, 1991; Erdem & Swait, 2004; Shank, 2009).

The numerous areas that compose brand equity are therefore important to organizations across many disciplines, as distinguished, equitable brands help attract and retain the customers that are essential to firm survival (Aaker, 1991; Shank, 2009). Professional sport organizations are no exception to this phenomenon as the attraction and retention of consuming spectators

and fans is critical to the financial and subsequent on-field performances of teams. The marketplace consequences of national media exposure, merchandise sales, corporate support, atmosphere, ticket sales, and additional revenues that result from an established brand equity are depicted in Gladden and Milne's (1999) model and play a pivotal role in granting teams value on and off the field of play. If brand equity can be obtained for a sport franchise, the resulting consequences can be rather lucrative to profit-maximizing and win-maximizing owners alike.

It therefore makes sense as to why team marketers and managers are seen emphasizing factors such as game attractiveness, marketing promotions, and economic incentives in an effort to generate a market demand for their product (Greenstein & Marcum, 1981; Hansen & Gauthier, 1989; Schofield, 1983; Zhang, Pease, Hui, & Michaud, 1995), and why significant research efforts have been devoted to examining the antecedents of brand equity in professional sport teams. Although the intention of the current study was to examine just one of those antecedents, star players, numerous other factors are understood to potentially influence brand equity in professional sport teams. On-field success, traditions, geographic locations, coaches, schedules, facilities, and an abundance of additional variables have all been presented as driving forces of brand equity in professional sport teams (Gladden & Funk, 2002; Gladden & Milne, 1999; Gladden, Milne, & Sutton, 1998; Hansen & Gauthier, 1989; Shank, 2009; Wakefield & Sloan, 1995) and as antecedents affecting the brand awareness and brand associations between fans and teams (Gladden & Funk, 2002; Kaynak et al., 2007; Ross, 2007; Ross et al., 2006).

Gladden and Milne's (1999) framework takes into account several of these antecedent conditions and segments them into product-related, organization-related, and market-related factors. Product and organization-related antecedents, which are the components necessary for performing the product or service function sought by consumers, are of particular importance because team managers can often control and manipulate these factors (Keller, 1993; Shank, 2009). Star players, being labeled as product-related antecedents, are therefore

manageable aspects of an organization as general managers decide who to sign, trade, and release, and team marketers decide whether or not to use certain players as the focus of promotional efforts. However, due to the generic phrasing used to denote these marquee athletes in extant studies, their true value-add continues to go unappreciated and unidentified in its ability to connect with consumers at various stages of brand development. Given that the importance and impact of star players is quite evident, more insightful analyses could prove beneficial to team officials as they look to manage their teams' brands.

Star Power in Professional Athletes

Endowed with the abilities to boost team performance, attendance numbers, television ratings, and merchandise sales, star players are at the core of providing the benefits that differentiate one team's brand from another (Foster, Greyser, & Walsh, 2005; Shank, 2009; Zhang et al., 2003). The movement of LeBron James between teams in the NBA, for instance, serves as a prime example of the effects that one player can have on a franchise. After being drafted first overall in the 2003 NBA Draft, James became a member of a Cleveland Cavaliers organization that was coming off a 17-win season, possessed a below-average league attendance of 11,497 fans per home game, and held a team value of \$258 million (Matuszewski, 2010). James quickly helped turn the organization around, nearly doubling attendance figures to 20,562 fans per game, leading the Cavaliers to multiple 60-win seasons and propelling the team to an overall franchise value of \$476 million that ranked fifth in the league (Matuszewski, 2010). Unsurprisingly, when James announced his departure for the Miami Heat in 2010, Cleveland's overall value dropped nearly 26% while Miami's rose by 17% (Matuszewski, 2010). The Heat's ticket sales had been declining for four years, yet sold-out once James joined (Ozanian, 2011).

Almost singlehandedly, LeBron James had accounted for one of the greatest shifts in franchise value just by switching teams. However, not every player is capable of exerting such an influence. Indeed, spectators often attend live matches or watch televised

games because they are attracted to *star* players, those athletes whose unique attributes and elevated statuses make them capable of providing benefits unrealized by the average player. Ambiguity often surrounds the practitioner's use of the term "star players," and although it is generally accepted that they are athletes possessing special attributes that positively differentiate them from their compatriots, such a generalization offers little insight to those desiring more specific characterizations.

In light of this vagueness, various studies have sought to distinguish the general concept of superstardom by revealing traits and concepts that serve as prerequisites to its attainment. The origins of these studies lie outside the sporting realm and can be traced back several decades, beginning with McGuire's (1968) study on the nature of attitudes and attitude change. Developing what came to be coined as the *source credibility model*, McGuire theorized that *perceived expertise* and *trustworthiness* are necessary attributes for a person looking to exercise persuasiveness over others. McGuire (1985) further discussed that one's acceptance of a message relies on the *similarity*, *familiarity*, and *liking* of the message deliverer, forming what came to be known as the *source attractiveness model*. McCracken (1989) then extended McGuire's research with the *meaning transfer model*, which showed how meanings pass from celebrity to product and from product to consumer via *celebrity image*. This naturally led to the *product match-up hypothesis* and other similar constructs that assessed the *fit* between promotional messages and their celebrity endorsers' *images* or *attractiveness* (Kahle & Homer, 1985; Kamins, 1989, 1990; Ohanian, 1991). Taking the initiative to apply these generic frameworks to an athletic setting, Braunstein and Zhang (2005) contended that these preliminary models are highly applicable to sports because star athletes have the ability to influence others as a result of their *physique*, *knowledge*, *attitude*, *exemplary skills*, and *ability to invoke pride*. Through factor analyses, the researchers ultimately identified five star power factors of *professional trustworthiness*, *likeable personality*, *athletic expertise*, *social attractiveness*, and *characteristic style*, and found that these

constructs were positively predictive of sport consumption.

Nevertheless, there are some limitations that hamper previous studies (Brooks & Harris, 1998; Charbonneau & Garland, 2006) from being directly applicable to this examination. A majority of studies, for instance, sought to define superstardom within the context of *external* product endorsements by focusing on attributes that made athletes effective endorsers of products outside the scope of the teams they played for. Knowing what makes LeBron James a good endorser for Nike shoes sheds some light on his overall marketability but neglects certain linkages his star characteristics might have on team-specific functions that contribute to the development of a franchise's brand equity. Furthermore, drawing relationships between stars and endorsements often overstates factors that lie beyond the field of play. Many fans and members of management place importance on in-game performance and team achievement (Gladden & Milne, 1999; Kuper & Szymanski, 2012; Pan, Gabert, McGaugh, & Branvoid, 1997), so knowing which traits make an athlete effective at selling an unrelated product sheds limited light on the characteristics that delineate star players from mere celebrities. Braunstein and Zhang's (2005) findings, for example, appear to put an overemphasis on attributes such as social attractiveness, likeable personality, characteristic style, and professional trustworthiness that have a closer resemblance to a generic celebrity endorser than a star athlete. While such imbalance seems appropriate given their study's reliance on models that highlighted the more celebrity-related aspects of stardom, later studies seem to suggest that concepts like winning and in-game performance are necessary to delineate a true star player from a mere celebrity athlete (Chalip, 1997; Shuart, 2007; Stevens, Lathrop, & Bradish, 2003). Given that most of the aforementioned studies tended to focus on the general concept of celebrity, making a distinction between the *celebrity* and the *star player* is necessary because literature shows celebrity as being just one part of a star player's composition. In other studies, athletic stardom is described as a *synthesis of sport hero and celebrity athlete* (Chalip, 1997; Shuart, 2007; Stevens et al., 2003), revealing a convergence

that is helpful because it provides researchers with two identifiable backgrounds from which an athlete's impact on a variety of areas can be assessed.

In a general sense, a celebrity is an individual whose name garners people's attention and interest and has the ability to generate a profit (Rein, Kotler, & Stoller, 1997). In the context of sport, *celebrity athletes* often gain recognition and fame through additional media coverage. This coverage is typically thought to arise from elements outside of the athlete's on-field ability, such as charisma, attractiveness, or a likeable personality (Foster et al., 2005; Shank, 2009). Jason Collins, for instance, achieved a high-level of recognition as the first NBA athlete to publicly acknowledge his homosexuality, yet few would consider him a true sport star because his on-field abilities had long faded (Stein, 2013). In a similar fashion, NBA forward Kris Humphries achieved celebrity athlete status because of his brief marriage to Kim Kardashian; however, as evidenced by his inability to remain on any one team for a significant length of time, he has never been viewed as one of the elite players at his position (Mazzeo, 2011).

On the other hand, a *sports hero* is an athlete who becomes recognized for exceptional skills and accomplishments in high-level competitions (Shuart, 2007; Stevens et al., 2003). This concept speaks more towards the on-field attributes of players who achieve star status by showcasing their unique abilities on the big stage. Such a status is often denoted by all-star appearances, trophies won, and other performance-related metrics (Moskowitz & Wertheim, 2011; Yang & Shi, 2011; Yang, Shi, & Goldfarb, 2009). In this sense, many players have achieved prominence within their respective sport but have not been able to translate their athletic skills into marketable personalities or lifestyles. These are the types of athletes who often avoid off-field publicity while describing themselves as "all-business." They are well-known for their exploits on the field but might never realize their full potential off of it. In essence, they are athletic stars, but not necessarily celebrity athletes.

The basic premise of this prior research seems to suggest that both celebrity athlete status and

sports heroism are capable of granting a player some form of star power, although some combination of the two may be required for players and their constituents to realize the maximum benefits of superstardom (Chalip, 1997; Shuart, 2007; Stevens et al., 2003). Athletes like David Beckham, a player who combined his unique athletic skills with a marketable personality, look, and lifestyle, serve as vivid examples of this phenomenon. And while one aspect is often more visible than the other, both could serve as prerequisites to attaining the prestigious rank of star player. The extant literature therefore seems to suggest that marketers, managers, and practitioners should take into account both the in-game and out-of-game characteristics of athletes when assessing their potential for star power. In lieu of this evidence, the current study's investigators included both on-field and off-field elements of star power in their research. Doing this allowed for a more accurate and all-encompassing assessment of the relationship between athletic star power and team brand equity.

METHOD

Participants

Research participants ($N = 195$) were graduate and undergraduate students in a public university located in the Mideast region of the United States. The use of a student sample was deemed appropriate in this situation given that students are accessible, commonly involved in product and brand choice research (Biswas & Sherrell, 1993), and representative of a significant portion of sport consumers (Ross et al., 2006). Of the sample, 127 (65%) of the 195 respondents were males, while the remaining 68 (35%) were females. Nearly all of the participants were single (90.2%), and the most common age range was 18-20 (45.3%). The predominant ethnicity was White (80.9%), with African Americans (11.9%) and Asians (3.1%) accounting for the second and third largest racial contingents. Among the respondents, 89.7% followed professional football, 60% basketball, 55.9% baseball, 16.9% hockey, and 16.4% soccer. Such a distribution seemed representative of the study's setting in Mideast America given that North America's "big four" sports were represented in the top slots. Furthermore, 40% of the fans studied claimed

to have been supporters of their favorite team for over 15-plus years, with another 24.6% indicating they had been fans for 10-14 years. In fact, 91.8% of the participants were *at least somewhat involved* as supporters of their favorite teams, and a majority (66.2%) stated that they owned a replica jersey or other piece of team merchandise specifically associated with a past or present player from their favorite team. This data indicated that the sample was a reliable source for obtaining the necessary information given the respondents' high levels of involvement with the professional teams and players. Table 1 reveals the full demographics of the respondents.

Survey Instrument

Based on a review of relevant literature, a survey questionnaire containing four sections was developed. No extant scales were directly adopted in this study due to the fact that prior models neglected the dual nature of star players and focused vaguely on the relationships between star players and team brand equity. In order to assess the specific linkages between star player characteristics and the acute areas of a team's brand equity, a new scale was developed to adhere to the current study's objectives.

TABLE 1:
Demographic Characteristics of Respondents (N = 195)

Characteristic	Frequency	%
<u>Gender</u>		
Male	127	65.1
Female	68	34.9
<u>Marital Status</u>		
Single	174	90.2
Married	12	6.2
Engaged	4	2.1
Divorced	3	1.5
Missing	2	--
<u>Class Standing</u>		
Freshman	16	8.3
Sophomore	42	21.8
Junior	57	29.5
Senior	42	21.8
Masters	32	16.6
Doctoral	2	1.0
Other	2	1.0
Missing	2	--
<u>Age</u>		
18-20	87	45.3
21-23	61	31.8
24-26	26	13.5
27-29	9	4.7
30-63	9	4.7
Missing	3	--
<u>Ethnicity</u>		
African American	23	11.9
Asian	6	3.1
Hispanic	2	1.0
White	157	80.9
Native American	4	2.1
Other	2	1.0
Missing	1	--

The first section inquired about the respondents' general background information. The second section examined consumer preferences and behaviors and used questions to screen the eligibility of the research participants. This section also asked respondents to write the names of their favorite professional teams and players in an effort to stimulate thoughts and responses on the topical concepts (Ross et al., 2006). The third section of the questionnaire presented 10 items pertaining to the assessment of star player characteristics and asked respondents to rate on a six-point Likert-type scale (1 = *strongly disagree* to 6 = *strongly agree*) which traits were more or less relevant in defining an athlete as a star. Each trait reflected characteristics that had been presented in previous literature and real-life scenarios. The final section of the survey assessed star players' effects on professional teams' brands using the same six-point Likert-type scale that was deployed in section three. This area of the instrument contained 40 items asking the participants to rate these relational effects to the extent by which they agreed or disagreed with the proposed relationship. After its development, the preliminary questionnaire was submitted to a panel of three experts in sport management for a test of content validity in regards to item relevance, clarity, and representativeness. Following the input of the panel members, minor revisions were made to improve the wording of the items.

Procedure

The institutional review board on the use of human subjects approved the conduct of this study. Along with a form of consent, the survey questionnaire was distributed to a total of 250 graduate and undergraduate students in the kinesiology department at the aforementioned university. A total of 209 agreed to participate in the study and completed the survey; however, only 195 were actually included in the study, representing a retention rate of 78%. The responses of the 14 excluded individuals were discarded due to their indications that they were *not* fans of professional sport and did not follow professional sport at all. Based on Koll and Wallpach's (2009) assertion that frequent consumers experience a more intense relationship with a brand than occasional or non

-buyers, the elimination of these responses from the study was justified.

Data Analyses

Given the exploratory nature of this study and initial development of scales for measuring the characteristics of star players and a professional team's brand equity, exploratory factor analyses (EFA) with orthogonal rotation techniques were conducted to examine the dimensionality of the items. EFA is a scaling procedure that examines a set of observed variables, reduces them, and then summarizes them until sets of hypothetical, underlying dimensions called *factors* emerge (Smith & Albaum, 2005). In this instance, EFA was a helpful tool for narrowing down a variety of star power traits and branding relationships into more simple, identifiable constructs. Similar analytical protocols have been successfully deployed in other studies examining star power and sport-branding (Braunstein & Zhang, 2005; Ross et al., 2006; Zhang et al., 2003). Within the results of the survey, two distinct EFAs were carried out. The first EFA was conducted on the 10 items assessing star player characteristics in an effort to aggregate them into definable attributes. The second EFA was applied to the 40 items assessing the impact of star players on specific functions and aspects of a professional team's brand. All of these subgroups were then analyzed, tested for validity, and classified appropriately. Lastly, multiple regression analyses were conducted to examine the relationships between the star player attributes and the brand equity components.

RESULTS

Procedures were followed on SPSS 21.0 software to conduct the factor analyses. Operating under Kaiser's (1970) criterion that eigenvalues greater than one suggest relevant factors, 1.0 was selected as the standard for factor retention. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .80 for the star player characteristic items and .90 for the brand equity items, indicating that the sample size was adequate for conducting the EFA. Both values of the Bartlett's Test of Sphericity were significant ($p < .001$), indicating that high inter-item relationships

existed and EFA was appropriate (Coughlin & Knight, 2007; Field, 2009).

For the items related to star player characteristics, two factors with eigenvalues greater than or equal to 1.0 were extracted and deemed relevant based on Kaiser's rule. These factors accounted for just over 50.0% of the total variance among items. Two items that were either double loaded on two factors or not relevant to a factor's domain were discarded, meaning 8 items were retained amongst the two discovered factors. As seen in Table 2, these factors were labeled as On-Field and Off-Field characteristics and were loaded with four items each. The On-Field factor was heavily weighted with items showing that a player's ability to contribute to team success, perform well as an individual, display leadership qualities, and exhibit exceptional skill all made him or her capable of exuding star power. The Off-Field factor loaded items pertaining to the more celebrity-like attributes of charisma, attractiveness, status, and culture.

Following a similar factor analysis on the results of the 40-item branding section, eight factors with appropriate eigenvalues were initially extracted and deemed relevant. These factors accounted for 62.881% of the overall variance among items. Examining the rotated factor structure, a total of 30 items under six factors had sufficient values at or above .40

without double loading. These factors were appropriately retained. However, two factors had items with loading values below .40, removing them from the final factor solution and excluding them from further analyses. Modifications to both sets of results were supported by Thurstone's rules, which state that selected values should be .40 and above, double loaded values should be dropped, and values loading high on inappropriate factors should be deleted (Coughlin & Knight, 2007). The resolved factors, viewable in Table 3, were labeled as Brand Loyalty, Brand Awareness, Brand Image, Brand Value, Perceived Quality, and Brand Reputation. Cronbach's alpha (α) coefficient ranged from .66 to .74, respectively, for the Off-Field and On-Field factors. For the team-branding constructs, the alpha coefficients ranged from .63 to .89. All alpha coefficients can be seen beneath their related factors in Table 2 and Table 3.

Following the EFAs, multiple regression analyses were run to analyze the relationship between star players and each of the six brand equity components. Incorporating both the On-Field and Off-Field elements as forced predictors in the multiple regression models, it was seen that the areas of Brand Awareness and Brand Image appeared to be the most affected by the "true" star athletes that exhibited both of these superstar traits. Indeed, the overall star

TABLE 2:
Classified Star Player Factors with Loaded Items, Loading Weights, and Alphas

Construct (Factor)	Loading	Item
<u>On-Field Stardom</u> $\alpha = .737$	.699	<i>Exceptional skills</i> (possesses skill and athletic ability that few others can replicate)
	.756	<i>Leadership</i> (able to make teammates better)
	.727	<i>Performs well as an individual</i> (wins personal awards, has good stats, all-star appearances)
	.796	<i>Contributes to team success</i> (helps the team win games and championships)
<u>Off-Field Stardom</u> $\alpha = .660$	.570	<i>Charisma</i> (personality, sharpness, speaking ability, swagger)
	.838	<i>Attractiveness</i> (good looks, sex appeal)
	.791	<i>Celebrity status</i> (the athlete captures society's attention on and off the field/court)
	.566	<i>Cultural significance</i> (Asians in the NBA, Americans in Europe)

TABLE 3:
Classified Brand Equity Factors with Loaded Items, Loading Weights, and Alphas

Factor Name	Loading	Item
<u>Brand Loyalty</u>	.742	I would not renew season tickets if the team lost its star players
$\alpha = .889$	.793	I will not support a team if its star players leave
	.822	I decide to support one team over another because of the star players on that team
	.594	I will recommend a team to others because of its star players
	.491	Star players give me an emotional connection to a team
	.691	I am more likely to support a team that has star players on its roster
	.740	I support a team because of the star athletes on the team
	.757	I will stop supporting a team if new star players are not brought it
<u>Brand Awareness</u>	.527	I first become aware of a team because of its star players
$\alpha = .786$	.451	Star players are good promotional spokesmen for their teams
	.567	Star players of a specific nationality raise awareness for their teams in those countries
	.714	I recognize a team's brand when I see its star players
	.635	I become more aware of a team when it signs a star player
	.565	The skills and performances of a star player generate exposure for a team
	.549	Star players spread the team's brand (logo, name, colors) to new audiences
<u>Brand Image</u>	.819	Star players with good reputations impose a positive image on their team
$\alpha = .774$	.591	Star players with bad reputations impose a negative image on their team
	.695	Star athletes who give back to the community are beneficial to team image
	.460	Star players shape the team's image
	.769	Star players' actions can affect team image in a positive or negative way
<u>Brand Value</u>	.675	Having star players on a team adds value to the organization's brand
$\alpha = .793$	.600	A newly signed star athlete will improve the value of the team
	.855	High-profile athletes bring further revenue to a team
	.549	Star athletes can raise the performance levels of their teammates
<u>Perceived Quality</u>	.563	I have greater trust in teams that have star players
$\alpha = .639$	.592	I am more impressed by teams with star players
	.643	I am aware of a team because I purchase player merchandise
<u>Brand Reputation</u>	.642	I support a team because of the traditions established by the star players
$\alpha = .634$	.646	I will continue following a losing team if it has star players on its roster
	.679	A past or present star player will keep me supporting the team for a long period of time

player that consisted of both the On-Field and Off-Field characteristics explained 12.5% of the variance in Brand Awareness, $F(2, 170) = 13.23, p < .01, \text{adj. } R^2 = .125$, and 17.6% of the variance in Brand Image, $F(2, 178) = 20.26, p < .01, \text{adj. } R^2 = .176$. In the Brand Awareness model, both On-Field stardom, $\beta = .302, t(170) = 4.21, p < .01$, and Off-Field Stardom, $\beta = .175, t(170) = 2.43, p < .05$, were significantly and positively predictive of Brand Awareness amongst consumers. The same was

true for the Brand Image model as On-Field stardom, $\beta = .402, t(178) = 5.90, p < .01$, was a highly significant and positive predictor of Brand Image and Off-Field stardom was a moderately significant and positive predictor, $\beta = .114, t(178) = 1.67, p < .10$.

In terms of effect sizes on the remaining brand equity factors, the combined superstar trait models held adjusted R^2 values of .106, .057, .074, and .043 for the Brand Value, Brand

Reputation, Perceived Quality, and Brand Loyalty constructs, respectively. Each of these models also had significant F -values ($p < .01$). However, only Perceived Quality was significantly predicted by both the On-Field ($p < .10$) and Off-Field ($p < .01$) factors. For each of the remaining three constructs, only one of the two star power traits was a significant predictor of its brand equity component. As seen in Table 4, only the Off-Field characteristic was significantly predictive of Brand Loyalty ($p < .01$), while On-Field stardom was the lone, significant predictor in the Brand Value ($p < .01$) and Brand Reputation ($p < .01$) models.

DISCUSSION

This study performed exploratory factor analyses on the items of a survey questionnaire in order to extract factors consistent with star player characteristics and components of brand equity. What emerged were two factors that characterized a player as a star and six factors that fell within the brand equity domain. Multiple regression results showed that both stardom factors were significantly predictive of brand awareness, a component that plays a vital role in the initial generation of brand equity (Aaker, 1991; Keller, 1993; Shank, 2009). In addition, the two factors combined to explain a significant percentage (12.5%) of the variance in the relationship. Brand image was also significantly affected by the combination of both forms of star power, with 17.6% of the variance explained. Both of these discoveries provide initial evidence that star players showcasing both on-field and off-field attributes could exert a positive effect on the brands of professional sport teams as they help teams develop consumer-based brand equity.

Overall, a player's on-field stardom appeared to be predictive of a greater number of brand equity measures as it was found to be significantly predictive of five brand equity relationships compared to off-field stardom's four. The on-field characteristic also appeared to exert a greater effect on its related constructs as evidenced by standardized regression weights (β) that exceeded those of the off-field trait in four of the six models (see Table 4). Nevertheless, between the two factors, every phase was accounted for as no component of

brand equity failed to show a significant relationship to at least one of the superstar characteristics. Therefore, Gladden and Milne's (1999) framework depicting star players as key antecedents to the generation of brand equity remains verified in its assertion, with this study's results helping clarify and quantify the relationship. Figure 2 visualizes the discovered relationships and establishes a foundational model upon which future studies can expand. Overall, the results hold relevant implications at both the theoretical and practical levels.

Theoretical Implications

The results obtained from the exploratory factor and regression analyses were consistent with numerous theoretical concepts discussed in previous star power and branding literature. These insights not only provided a specific, more detailed assessment of a relationship that has been broadly discussed in extant frameworks and models (Gladden & Funk, 2002; Gladden & Milne, 1999; Kaynak et al., 2007), but also helped model a player-team relationship that is prevalent across all professional sport organizations.

Collectively, the two superstar characteristics were predictive of increased awareness amongst consumers, highlighting the importance of building a brand awareness attribute that has consistently been shown to initiate brand equity in previous frameworks and studies (Aaker, 1991; Keller, 1993; Shank, 2009). Of additional importance was brand image, which appeared to be the area of brand equity most affected by players showcasing both traits. This component stood as on-field stardom's most affected measure ($\beta = .402$), revealing the influence this relationship could have on the generation of teams' brand equities. Interpreting brand image as a collection of brand associations that shape consumer perceptions of a brand (Keller, 1993), it would appear that star players do function as team-related antecedents capable of influencing the development of consumer-based brand equity in this area. Gladden and Funk's (2002) TAM scale and Kaynak, Salman, and Tatoglu's conceptual model (2007) were two such studies identifying consumer brand associations as key drivers of brand equity and loyalty. This finding therefore augments the focuses of these prior examinations by reinforcing the notion that the

TABLE 4:
Descriptive Statistics and Results from the Multiple Regression Analyses

Factors	Mean	SD	<i>F</i>	<i>df</i>	adj. <i>R</i> ²	<i>t</i>	<i>b</i>	<i>SE</i>	β
<u><i>Brand Loyalty</i></u>	23.3	7.74	4.913**	2, 174	.043				
Constant						2.52	14.2*	5.62	
On-Field Stardom	21.7	2.40			-.010	.154	.037	.239	.011
Off-Field Stardom	16.8	3.58			.042	3.10	.496	.160	.230**
<u><i>Brand Awareness</i></u>	31.9	5.30	13.23**	2, 170	.125				
Constant						3.77	13.6**	3.61	
On-Field Stardom	21.7	2.46			.094	4.21	.652	.155	.302**
Off-Field Stardom	16.6	3.70			.034	2.43	.251	.103	.175*
<u><i>Brand Image</i></u>	26.0	3.20	20.26**	2, 178	.176				
Constant						6.03	12.7**	2.11	
On-Field Stardom	21.7	2.41			.163	5.90	.534	.090	.402**
Off-Field Stardom	16.6	3.65			.015	1.67	.100	.060	.114 ⁺
<u><i>Brand Value</i></u>	19.2	3.00	11.60**	2, 176	.106				
Constant						4.64	9.79**	2.11	
On-Field Stardom	21.8	2.40			.106	4.79	.426	.089	.341**
Off-Field Stardom	16.8	3.57			-.010	.096	.006	.060	.007
<u><i>Brand Reputation</i></u>	12.3	2.90	6.454**	2, 180	.057				
Constant						2.36	4.90*	2.08	
On-Field Stardom	21.8	2.38			.046	3.13	.276	.088	.227**
Off-Field Stardom	16.7	3.60			.005	1.44	.084	.058	.104
<u><i>Perceived Quality</i></u>	10.7	3.06	8.163**	2, 177	.074				
Constant						1.73	3.70 ⁺	2.14	
On-Field Stardom	21.7	2.42			.015	1.84	.168	.092	.133 ⁺
Off-Field Stardom	16.6	3.66			.057	3.37	.204	.060	.244**

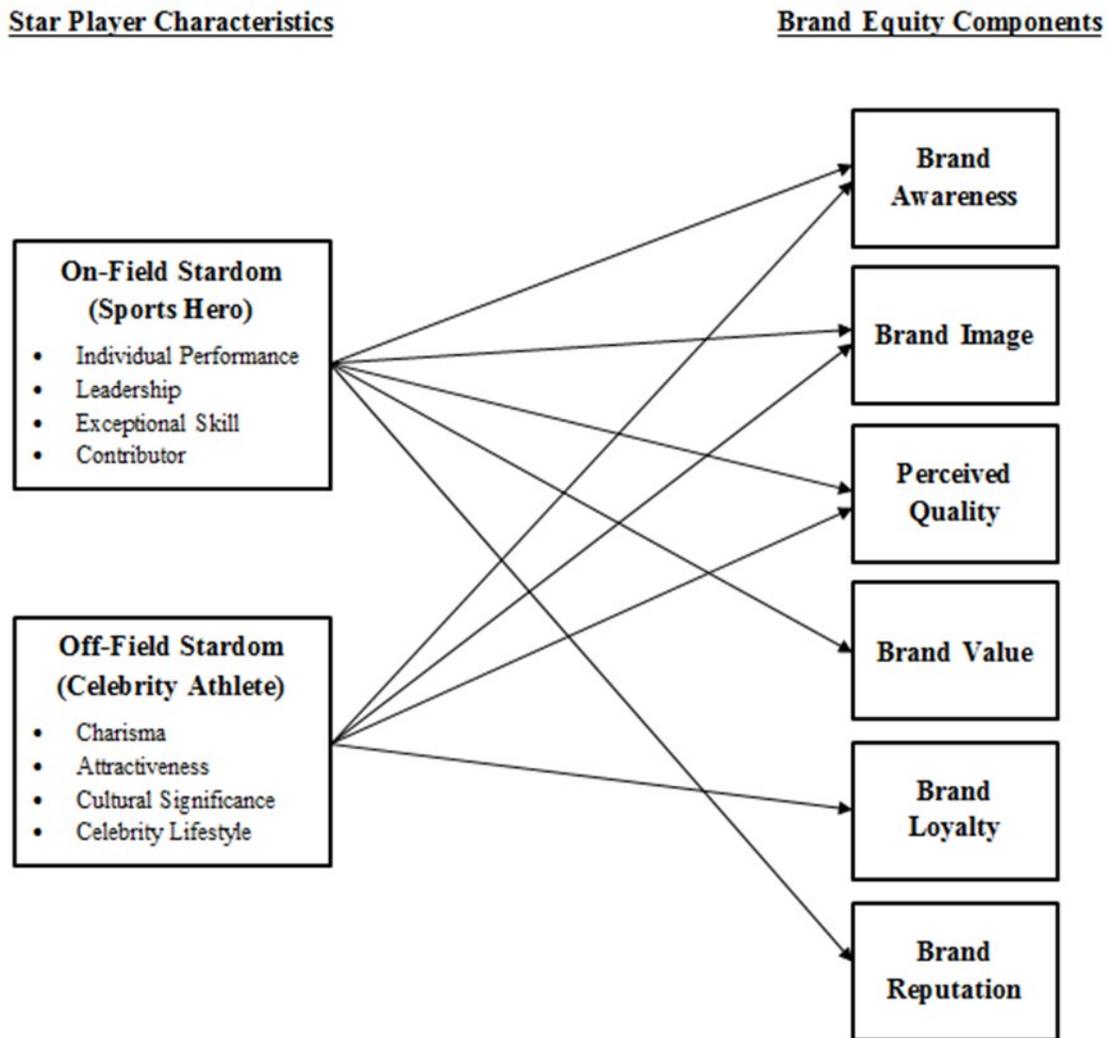
fostering of a solid brand image is vital to brand success, and that star players can lend a hand in shaping consumer attitudes toward a team.

It is also important to note that the EFA's extraction of two factors—one representing the on-field characteristic of a player and the other representative of an off-field trait—aligned with previous studies portraying star athletes as being some combination of sports hero and/or celebrity athlete (Braunstein & Zhang, 2005; Chalip, 1997; Shuart, 2007; Stevens et al., 2003). Of these characteristics, on-field stardom appeared to harness greater potential in its ability to exert an effect on the development

of teams' brand equities and predict positive responses from consumers at the awareness, image, value, and reputation stages of brand equity. The off-field, celebrity athlete characteristic appeared to be slightly more limited in its capacity to affect brand development, though it was still predictive of consumer-based brand equity in the areas of brand loyalty, brand awareness, brand image, and perceived quality.

Perceived quality therefore stood as the third construct outside of brand awareness and brand image that was significantly predicted by both

FIGURE 2:
Conceptual Model Depicting the Relationships between Star Player Characteristics and Affected Components of Professional Sport Teams' Brand Equities.



on-field and off-field stardom. Though some researchers have begun to merge this area of brand equity into other dimensions (Aaker, 2013), its continued use in academic circles, combined with the fact that the EFA extracted a factor consistent to its definition, made it worthy of inclusion. In regards to perceived quality's significant relationship with the off-field trait, it would appear as though consumers also form judgments of team quality based on players' off-field characteristics. While it may seem counterintuitive for the off-field attributes to exert such an influence on perceptions of team quality, such an occurrence coincides with the theoretical frameworks presented by

McGuire (1985), McCracken (1989), and others (Kahle & Homer, 1985; Kamins, 1989, 1990; Ohanian, 1991) that showed such attributes as likability, image, and attractiveness to play a key role in the influencing of consumer opinions. Such a finding also supports the *image heuristic* theory presented in prior literature which argues that players are biasedly evaluated on the basis of physical appearance rather than actual performance (Kuper & Szymanski, 2012; Lewis, 2004).

In general, the results of this study appear to consistently align with the theories presented in previous sport branding literature by portraying

brand awareness and brand image as vital elements in the brand equities of professional sport teams (Gladden & Funk, 2002; Kaynak et al., 2007; Ross, 2007; Ross et al., 2006). Future studies on the brand equity of professional sport franchises would be wise to take into consideration these seemingly important areas in their own theoretical assessments, as star players' significant relationships to these dimensions only add additional relevance to their usage. For now, the links uncovered between the star player characteristics and brand equity components lend additional, quantified insights to the relationship presented in earlier theoretical models of brand equity in professional teams.

Practical Implications

Beyond the theoretical realm, the findings of this study hold pragmatic value to managers on teams in possession of star athletes that are capable of differentiating their franchises' brands from competitors. In particular, managers with the ability to deploy athletes possessing strong on-field characteristics appear to stand the greater chance of converting a star player's attributes into a realized equity for a team's brand. However, the most powerful effects appeared to be harnessed by true star players that are able to combine both the on and off-field traits. This was first witnessed at the brand awareness stage, where both on and off-field stardom proved significant in their ability to predict raised recognition for a team amongst consumers. Taking this into consideration, marketers should include star players in their promotional activities from the start. Such actions might involve the use of a star athlete on team advertisements and season ticket campaigns, or the appearance of a marquee player's name, number, or likeness on a variety of team-branded or co-branded merchandise. Seeing as brand awareness is the first step in the development of brand equity, knowing that star players are capable of generating awareness for a team can help persuade marketers to base initial efforts around the performances and personalities of these superstars. It also sheds light on the role a newly acquired star player can have in drawing attention to a brand and helping it reach new markets.

It is also important to consider brand image and the role it plays in shaping consumer attitudes toward a brand. The findings showed superstars to be more capable of affecting brand image than any other area, which could potentially be a double-edged sword since the effect can be positive or negative. However, for managers looking to carry a team's image from one of losing and trouble to winning and glory, a high character, high performing star player may serve as the perfect antidote. In addition, marketers hoping to boost a team's brand image would be wise to look for an appropriate "fit" between a player and the message they are trying to portray, so as to form the proper associations in consumer minds.

Shifting to perceived quality, it was interesting to observe that in addition to on-field stardom, off-field stardom was a significant predictor of consumer perceptions in this area. Therefore, realizing consumer judgments of the product will also be based around athletes' off-field traits, marketers hoping to improve the perceived notions of their team should make the star athletes more accessible and relatable to the public. By providing opportunities for player cameos in public forums, marketers are able to unite fans with the players they support, boosting consumer perceptions of the brand's quality as they become more familiar with the athletes off the field (Jowdy & McDonald, 2002).

Once these first few phases have been recognized and reinforced, team officials should be on the lookout for a rise in brand value. On-field stardom, in particular, was predictive of this value-rise in professional sport franchises, a notion that makes sense considering the wide array of performance-based incentives that exist for teams across leagues. In order to win and realize the associated rewards, they must attract and retain the best players, a phenomenon witnessed in the value shifts associated with LeBron's move from Cleveland to Miami. In the consumer-based context of this study, the discovery of players' effects on the brand value measure technically states that consumers believe star players are capable of affecting the overall value of a brand. While financial figures might be more appropriate in proving such a relationship, the brand value construct

nevertheless reflects consumers' tendencies to associate on-field ability with increased financial and winning performances. Marketers can therefore play to this value-add by glamorizing and promoting the arrival of superstar athletes to a team, while managers are well aware at this point of the positive financial benefits that result from a successful signing.

In regards to the latter stages of brand equity development, this study's research findings showed that off-field stardom was predictive of consumer loyalties to a team's brand while on-field stardom had almost no relationship with the brand loyalty construct. The latter relationship perhaps indicates that fans who attach themselves to players of great on-field ability will tend to concentrate more on those athletes and their unique skills than the teams they actually play for. In essence, they sacrifice loyalty to the team's brand for loyalty to the player's brand. On the other hand, fans drawn to players' celebrity-like attributes might be members of a broader audience who become enthralled with these unique personalities and thereby make decisions to invest in the team. However, because brand loyalty is the culmination of prior marketing efforts (Aaker, 1991; Shank, 2009), marketers should not take these results verbatim and deduce that the promotion of sports heroes will have limited effect on consumers' repeat purchases. Instead, they should look at on-field stardom's significant relationship with brand reputation—the symbol of a team's enduring tradition. Because on-field stardom is predictive of a solid team reputation, marketers should take action to recognize esteemed alumni in promotional videos and recaps of past achievements. This way, older generations will not be forsaken, and consuming fans can continue to bask in the glory of their past heroes.

In closing, it is important to note that the types of star athletes discussed in this study must often be acquired and compensated at high prices, meaning misjudgments in their potential value-add could prove costly. Therefore, the findings of this study hold additional implications for general managers, who will be delighted to hear that team performance does not necessarily have to be sacrificed in the name of brand development. In fact, the results

suggest that by recruiting players who perform on the field, general managers might be doing themselves, the marketing department, and the team's brand a huge favor. As a result, general managers and scouts should continue to attract, retain, and develop the top talent for their teams.

Current Limitations and Recommendations for Future Research

While this research plays a preliminary role in generally explaining which areas of brand equity are affected by star players and their characteristics, it follows that this study could be tested under more specialized circumstances and amongst varying demographics. Doing so would require items that are directly aimed to a specific professional sport, team, player, or league. This would reduce much of the generality associated with the terms *star players* and *professional teams*. In addition, spreading the survey to a broader group of participants might reveal different, emerging trends as participants in other countries or regions of the United States may hold varying opinions on the relationships between star player characteristics and teams.

Future research could also explore the causal relations between the various stages of the brand development process in order to procure more accurate results. Because the latter stages of brand equity development such as brand loyalty and reputation are influenced and driven by earlier phases like brand awareness and brand image (Gladden & Funk, 2002; Kaynak et al., 2007; Ross, 2007; Ross et al., 2006; Shank, 2009), implementing additional interfactor analyses through confirmatory factor analysis, structural equation modeling, hierarchical linear modeling, or additional methods could lend strength to the study's overall reliability and ability to convey a true process model. Such methods might also help recategorize or reduce the amount of brand equity components that were unearthed by the EFA in this study, thereby tightening the nomological net that surrounds many of these terms. To this extent, it is important to remind readers that this study was limited by its exploratory nature and was not designed to mirror any one model of brand equity. As such, the numerous dimensions of brand equity that

are presented reflect the responses of the consumer sample and simply highlight dimensions that may exist in a sport setting influenced by star athletes.

In addition, future studies could take a more longitudinal approach and incorporate the element of time to see whether or not these effects vary over the long and short-term. While this study did not differentiate between star players who have just signed and those who have been with a team for longer periods of time, future research could examine the immediate and lagged effects of superstars on brand development over the course of months or years. Expanding the sample size might also yield more significant relationships between star player characteristics and the branding constructs. Additional studies could also examine the negative effects of consumer loyalties to specific players rather than specific teams.

Ultimately, it is hoped that the findings of this study, although preliminary in scope, can help direct future studies toward the creation of a more complete model depicting the unique and important relationship between star players, their characteristics, and the components of a team's brand equity. Gladden and Milne's (1999) model and other previous frameworks provided conceptual foundations upon which the star player's interaction with the brand could be visualized. This study took it a step further by helping define the term "star player" and by revealing specific avenues, namely brand awareness and brand image, through which these marquee athletes can use their characteristics to exert an effect on a team's brand development. It is therefore recommended that future research continues to examine the nature of star players and the potential impacts they might have on team brands.

CONCLUSION

In an attempt to provide clarity on a star player's characteristics and the relationships that exist between these characteristics and the brand equity of a professional sport team, the authors of this study performed exploratory factor (EFA) and multiple regression analyses on the results of a 50 item survey that assessed

the relationships between star players, their attributes, and team brands. Although the examination was preliminary in nature, its results serve as an initial step toward the development of a framework depicting the overall, vital relationship between star athletes and the components of a team's brand equity. The end result of such a framework could stand as a supplement to the more broad-based frameworks already in existence (Gladden & Milne, 1999; Kaynak et al., 2007) while also serving as a useful tool to team managers and marketers as they assess the possible value added by star players to team brands. From this study it was seen that brand awareness and brand image appear to be the areas of brand equity most influenced by true star players that exhibit both on-field and off-field traits. However, it is recommended that future studies drawing from these initial discoveries perform more specialized, confirmatory analyses and obtain data from larger, more diverse samples.

REFERENCES

- Aaker, D. A. (1991). *Managing brand equity*. New York, NY: The Free Press.
- Aaker, D. A. (2013). *Strategic market management*. New York, NY: John Wiley & Sons.
- Biswas, A., & Sherrell, D. L. (1993). The influence of product knowledge and brand name on internal price standards and confidence. *Psychology & Marketing, 10*(1), 31-46.
- Braunstein, J. R., & Zhang, J. J. (2005). Dimensions of athletic star power associated with Generation Y sports consumption. *International Journal of Sports Marketing & Sponsorship, 6*(4), 242-267.
- Brooks, C., & Harris, K. (1998). Celebrity athlete endorsement: An overview of the key theoretical issues. *Sport Marketing Quarterly, 7*(2), 34-44.
- Chalip, L. (1997). Celebrity or hero? Toward a conceptual framework for athlete promotion. In *Advancing management of Australian and New Zealand sport*, (pp. 42-56). Burwood, Victoria: Sport Management Association of Australian and New Zealand.
- Charbonneau, J., & Garland, R. (2006). The use of celebrity athletes as endorsers: Views of the New Zealand general public. *International Journal of Sports Marketing & Sponsorship, 7*(4), 326-333.

- Coughlin, M. A., & Knight, W. (2007). *Exploratory factor analysis*. Paper presented at the AIR/SPSS Professional Development Series.
- Deloitte. (2013). *Deloitte annual review of football finance*. London, UK.
- Erdem, T., & Swait, J. (2004). Brand credibility, brand consideration, and choice. *Journal of Consumer Research*, 31(1), 191-198.
- Field, A. (2009). *Discovering statistics using SPSS*. Thousand Oaks, CA: Sage Publications.
- Foster, G., Greyser, S. A., & Walsh, B. (2005). *The business of sports: Cases and text on strategy and management*. Belmont, CA: Thompson South-Western.
- Gladden, J. M., & Funk, D. C. (2002). Developing an understanding of brand associations in team sport: Empirical evidence from consumers of professional sport. *Journal of Sport Management*, 16(1), 54-81.
- Gladden, J. M., & Milne, G. R. (1999). Examining the importance of brand equity in professional sports. *Sport Marketing Quarterly*, 8(1), 21-30.
- Gladden, J. M., Milne, G. R., & Sutton, W. A. (1998). A conceptual framework for assessing brand equity in division I college athletics. *Journal of Sport Management*, 12(1), 1-19.
- Greenstein, T., & Marcum, J. (1981). Factors affecting attendance of major league baseball: Team performance. *Review of Sport & Leisure*, 6(2), 21-34.
- Hansen, H., & Gauthier, R. (1989). Factors affecting attendance at professional sport events. *Journal of Sport Management*, 3(1), 15-32.
- Henseler, J., Wilson, B., Götz, O., & Hautvast, C. (2007). Investigating the moderating role of fit on sports sponsorship and brand equity. *International Journal of Sports Marketing & Sponsorship*, 8(4), 321-329.
- Jowdy, E., & McDonald, M. (2002). Relationship marketing and interactive fan festivals: The Women's United Soccer Association's 'Soccer Sensation'. *International Journal of Sports Marketing & Sponsorship*, 4(4), 295-311.
- Kahle, L. R., & Homer, P. M. (1985). Physical attractiveness of the celebrity endorser: A social adaptation perspective. *Journal of Consumer Research*, 11(4), 954-961.
- Kaiser, H. F. (1970). A second generation little jiffy. *Psychometrika*, 35(4), 401-415.
- Kamins, M. A. (1989). Celebrity and noncelebrity advertising in a two-sided context. *Journal of Advertising Research*, 29(3), 34-42.
- Kamins, M. A. (1990). An investigation into the "match-up" hypothesis in celebrity advertising: When beauty may be only skin deep. *Journal of Advertising*, 19(1), 4-13.
- Kaynak, E., Salman, G. G., & Tatoglu, E. (2007). An integrative framework linking brand associations and brand loyalty in professional sports. *Journal of Brand Management*, 15(5), 336-357.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *The Journal of Marketing*, 57(1), 1-22.
- Koll, O., & Von Wallpach, S. (2009). One brand perception? Or many? The heterogeneity of intra-brand knowledge. *Journal of Product & Brand Management*, 18(5), 338-345.
- Kotler, P. (1991). *Marketing management: Analysis, planning, implementation, and control*. Englewood Cliffs, NJ: Prentice-Hall.
- Kuper, S., & Szymanski, S. (2012). *Soccernomics: Why England loses, why Spain, Germany and Brazil win, and why the US, Japan, Australia, Turkey--and even Iraq--are destined to become the kings of the world's most popular sport*. New York, NY: Nation Books.
- Leeds, M., & Von Allmen, P. (2013). *The economics of sports*. New York, NY: Prentice-Hall.
- Lewis, M. (2004). *Moneyball: The art of winning an unfair game*. New York, NY: WW Norton & Company.
- Matuszewski, E. (2010). *Lebron James' departure would cut value of NBA Cavaliers by \$250 million*. Retrieved April 22, 2012, from <http://www.bloomber.com/news/2010-06-29/lebron-james-s-departure-may-cut-value-of-nba-s-cavaliers-by-250-million.html>
- Mazzeo, M. (2011). *Survey: Kris Humphries most disliked*. Retrieved July 9, 2015, from http://espn.go.com/new-york/nba/story/_/id/7379217/kris-humphries-most-disliked-nba-player-according-survey
- McCracken, G. (1989). Who is the celebrity endorser? Cultural foundations of the endorsement process. *Journal of Consumer Research*, 16(3), 310-321.

- McGuire, W. J. (1968). Personality and susceptibility to social influence. In E. F. Borgatta & W. W. Lambert (Eds.), *Handbook of personality theory and research* (pp. 1130-1187). Chicago, IL: Rand McNally.
- McGuire, W. J. (1985). Attitudes and attitude change. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (pp. 233-346). New York, NY: Random House.
- Moskowitz, T., & Wertheim, L. J. (2011). *Scorecasting: The hidden influences behind how sports are played and games are won*. New York, NY: Random House.
- Ohanian, R. (1991). The impact of celebrity spokespersons' perceived image on consumers' intention to purchase. *Journal of Advertising Research*, 31(1), 46-54.
- Ozanian, M. (2011). *The NBA's most valuable teams*. Retrieved April 22, 2012, from <http://www.forbes.com/sites/mikeozanian/2011/01/26/the-nbas-most-valuable-teams-2/print/>
- Pan, D. W., Gabert, T. E., McGaugh, E. C., & Branvoid, S. (1997). Factors and differential demographic effects on purchases of season tickets for intercollegiate basketball games. *Journal of Sport Behaviour*, 20(4), 447-464.
- Rein, I. J., Kotler, P., & Stoller, M. (1997). *High visibility: The making and marketing of professionals and celebrities*. Columbus, OH: McGraw-Hill.
- Ross, S. D. (2007). Segmenting sport fans using brand associations: A cluster analysis. *Sport Marketing Quarterly*, 16(1), 15-24.
- Ross, S. D., James, J. D., & Vargas, P. (2006). Development of a scale to measure team brand associations in professional sport. *Journal of Sport Management*, 20(2), 260.
- Schofield, J. A. (1983). Performance and attendance at professional team sports. *Journal of Sport Behaviour*, 6(4), 196-206.
- Shank, M. D. (2009). *Sports marketing: A strategic perspective*. Upper Saddle River, NJ: Pearson.
- Shuart, J. (2007). Heroes in sport: Assessing celebrity endorser effectiveness. *International Journal of Sports Marketing and Sponsorship*, 8(2), 126-140.
- Smith, S. M., & Albaum, G. S. (2005). *Fundamentals of marketing research*. London, UK: Sage.
- Stein, M. (2013). *Will an NBA team sign Jason Collins?* Retrieved July 9, 2015, from http://espn.go.com/nba/story/_/id/9752952/why-jason-collins-not-nba-roster
- Stevens, J. A., Lathrop, A. H., & Bradish, C. L. (2003). "Who is your hero?" Implications for athlete endorsement strategies. *Sport Marketing Quarterly*, 12(2), 103-110.
- Wakefield, K. L., & Sloan, H. J. (1995). The effects of team loyalty and selected stadium factors on spectator attendance. *Journal of Sport Management*, 9(2), 153-172.
- Yang, Y., & Shi, M. (2011). Rise and fall of stars: Investigating the evolution of star status in professional team sports. *International Journal of Research in Marketing*, 28(4), 352-366.
- Yang, Y., Shi, M., & Goldfarb, A. (2009). Estimating the value of brand alliances in professional team sports. *Marketing Science*, 28(6), 1095-1111.
- Zhang, J. J., Lam, E. T., & Connaughton, D. P. (2003). General market demand variables associated with professional sport consumption. *International Journal of Sports Marketing & Sponsorship*, 5(1), 33-55.
- Zhang, J. J., Pease, D. G., Hui, S. C., & Michaud, T. J. (1995). Variables affecting the spectator decision to attend NBA games. *Sport Marketing Quarterly*, 4(4), 29-40.

BRAND SPILLOVER EFFECTS WITHIN A SPONSOR PORTFOLIO: THE INTERACTION OF IMAGE CONGRUENCE AND PORTFOLIO SIZE

JOE COBBS, Northern Kentucky University

MARK D. GROZA, Northern Illinois University

GREGG RICH, The University of Georgia

A sponsor portfolio exists where multiple brands sponsor a single activity or property, such as a sporting event, team, league, or a charity simultaneously. While sponsor portfolios are common in practice, little is known about how the brand perceptions of several concurrent sponsors spill over to influence each individual sponsor's brand. This paper summarizes two experiments that investigate sponsor portfolios to determine how spillover effects influence consumers' perceptions of a particular sponsor's brand within the portfolio. In Study 1, empirical evidence substantiates a brand spillover effect between multiple sponsors of a single sport property. In Study 2, the influences of image congruence and portfolio size on this spillover effect are empirically assessed. Results demonstrate an interaction effect whereby brands incongruent to the sponsored property enjoy a more favorable brand perception when included in either a small portfolio inclusive of another incongruent co-sponsor, or a larger portfolio of otherwise congruent sponsors.

INTRODUCTION

One of the fastest growing corporate marketing expenditures is the sponsorship of sports, events, and non-profit organizations, which has topped \$57 billion globally and expanded by over four percent annually since 2012. Meanwhile, advertising and promotions expanded by less than three percent annually during that same period (IEG, 2015a). In North America, sports account for 70% of all sponsorship spending, followed by entertainment (10%), causes (9%), festivals and the arts (4% each) (IEG, 2015a). Sponsorship is commonly defined as the "provision of assistance either financial or in kind to an activity by a commercial organization for the purpose of achieving commercial objectives" (Meenaghan, 1983, p. 9). With the increasing financial investment by corporations into sponsorship and its utilization as a versatile marketing communication tool (Crowley, 1991), instances of multiple sponsor environments have become increasingly common (Smith, 2004). When a particular property (i.e., a sporting event, team, league, or a charity) possesses multiple sponsors, these brands represent the property's sponsor

portfolio or network (Erickson & Kushner, 1999; Farrelly & Quester, 2003).

For example, the Williams Formula One (F1) racing team boasts a sponsor portfolio of eighteen official corporate partners, hailing from multiple countries and representing several product categories. The Williams F1 sponsor portfolio includes brands such as Italian winemaker Martini, Brazilian energy company Petrobras, Finish packaging and wholesale product company Wihuri, British menswear tailor Hackett, and Swiss watchmaker Oris, to name a few (WilliamsF1, 2015). Most of Williams' sponsors receive visual branding on the team's two race cars, which places their brand images in close proximity to each other. The impact of such visual representations of sponsorship portfolios remains unclear.

Rising corporate investment in sponsorship and shareholder scrutiny have increased pressure on marketing managers to more accurately measure sponsorship effects (Jensen & Cobbs, 2014). While return-on-objective (ROO) and return-on-investment (ROI) metrics draw significant focus from practitioners (Pearsall, 2010), the difficulty in isolating sponsorship effects from other marketing and advertising effects brings to question the reliability of those measures (Maestas, 2009). Subsequently,

substantiating this return often depends on demonstrating image enhancement or distinction through a brand association with a sponsored property, whereby the meanings consumers associate with a sports or entertainment property are transferred to the sponsoring brand (Gwinner, 1997; McCracken, 1989; Meenaghan & Shipley, 1999). High sponsor-property congruence or fit, where consumers perceive a match between sponsor and property, has frequently been identified as a key factor for increasing this association and enhancing sponsors' perceived brand equity (Roy & Cornwell, 2003; Weeks, Cornwell, & Drennan, 2008) and achievement of business outcomes (Cornwell, Humphreys, Maquire, Weeks, & Tellegen, 2006; Roy & Cornwell, 2004). For example, personal beauty brand L'Oreal sponsors the Emmy Awards as well as several other award shows. In such arrangements, consumers are likely to transfer meanings of glamor and beauty associated with the shows' celebrities to the L'Oreal brand (IEG, 2015b). Such an association is theoretically enhanced when consumers perceive congruence between L'Oreal and the sponsored awards show.

Sponsor portfolios create a situation with concurrent presentation of multiple brand images where a brand spillover effect is theoretically possible. In such scenarios, a spillover effect occurs when the impression of an individual brand in the portfolio is influenced by other brands that consumers simultaneously perceive (Lebar et al., 2005; Uggl, 2004). Additionally, in these situations the potential effects of congruence or fit between concurrent sponsoring brands and the sponsored property, as well as *among* the sponsoring brands, becomes exponentially complex.

For instance, sports apparel brand Nike, language software provider Rosetta Stone, and confectionary producer Hershey are all sponsors of USA Track & Field (USATF) (Schoettle, 2015). Brand image transfer between the sports property—USATF—and its individual sponsors is anticipated based on established research (e.g., Gwinner & Eaton, 1999). This research further suggests the perceived congruence between the USATF and each individual sponsor influences this transfer

of image. Yet, at USATF events and in USATF promotional materials, these sponsors and others from a range of product categories are not presented in isolation but simultaneously with the USATF brand. As a result, beyond the image transfer with USATF, a secondary brand spillover between concurrent sponsors may be occurring. Is Rosetta Stone's brand image influenced by Nike and Hershey in the context of their concurrent USATF sponsorship? While extant literature documents dyadic processes for image transference between a property (i.e., event, endorser, or other sponsored organization) and a single corporate sponsor (e.g., Gwinner & Eaton, 1999; McCracken, 1989; Speed & Thompson, 2000; Till & Busler, 1998), little research has been conducted to examine the possibility of sponsor portfolio effects on the sponsoring brand.

Thus far, sponsorship portfolio research has primarily focused either on multiple sponsors' spillover effect on the brand of the sponsored property (Groza, Cobbs, & Schaefer, 2012; Ruth & Simonin, 2003, 2006), or the effect of multiple sponsored properties on a single sponsoring brand (Chien, Cornwell, & Pappu, 2011). However, an important question for many brand managers is what effect—if any—*other* sponsors of the same property have on your sponsoring brand. Unfortunately for managers, examination of spillover effects among sponsors within a single property's sponsor portfolio has been mostly ignored. One existing study has started this work by looking at the image transfer between two concurrent sponsors (Carrillat, Harris, & Lafferty, 2010), but managers know a key question related to industry practice is what spillover effects arise between *several* concurrent sponsors of a shared sponsored property.

The purpose of this research is to empirically address this need by investigating sponsor portfolios to determine how spillover effects influence consumers' perceptions of a particular sponsor's brand within the portfolio. Two different experimental designs utilizing actual consumer brands are employed to achieve this objective and advance sponsorship research.

This paper makes several unique research contributions. First, in Study 1 empirical

evidence of brand spillover effects is presented between multiple sponsors within a single sport property's sponsor portfolio. Then in Study 2, the influence of portfolio congruence and size on this spillover effect is empirically assessed. Literature reviews precede each study to provide theoretical and contextual justifications for the hypotheses tested, which are followed by sections describing methods, results, and discussions of each study. Finally, the article concludes with a summary of limitations, managerial implications and recommendations for future research.

STUDY 1

Study 1 examines whether a spillover effect occurs between sponsors within a single property's sponsor portfolio, and if so, how such effects influence the purchase intention for sponsors' brands. The following review of literature on brand associations and equity in brand alliances provides theoretical justifications for hypotheses used in this study.

Brand Alliances

According to Aaker (1991, p. 15), brand equity is the "set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service." This research emphasizes five specific dimensions within brand equity: brand loyalty, brand awareness, perceived quality, brand associations, and other proprietary brand assets. From the perspective of sponsors, creating brand associations with a sports team, league, or player has been identified as a primary purpose of marketing through sports (Meenaghan & Shipley, 1999). For example, telecommunications brand AT&T, relies heavily on sport sponsorships to create brand associations (Lefton, 2015). In the past twelve months, the AT&T brand was associated through sponsorship with such major American sporting events as the College Football Playoff, the National Collegiate Athletic Association (NCAA) Final Four, the Major League Baseball (MLB) World Series, and the National Basketball Association (NBA) Finals (Lefton, 2015). By building these brand associations, sponsors such as AT&T seek to raise brand equity and thereby increase brand strength (Gwinner & Eaton, 1999; Keller, 1993; Lebar

et al., 2005). Brand strength can serve as a distinctive advantage for sponsors, with consumers tending to support strong brands with attention, consideration, evaluation, and choice (Hoeffler & Keller, 2003).

Theoretically, brand associations are established in memory through schemas or informational nodes that link traits such as attributes, benefits, and attitudes to a brand; thereby, forming a schematic network of associations in the mind (Halford, Bain, Mayberry, & Andrews 1998; Hunt, Kernan, & Bonfield, 1992; Keller, 1993). The ability to establish and manipulate desired associations within a brand's schematic network through sport sponsorship offers sponsors a means of aligning itself to the attributes, benefits, and attitudes potential consumers associate with their favorite sport properties. While the research to date on brand associations in the context of sponsorship focuses on consumers' associations of a property with a sponsor (Gwinner & Eaton, 1999; Meenaghan, 1983; Meenaghan, 1991, 2001; Meenaghan & Shipley, 1999), this study introduces the possibility of brand associations between sponsors within a property's sponsor portfolio.

Both primary associations (brand name, logo, packaging, and actual product) and secondary associations (endorsers, sponsored events, and other affiliated brands) influence a consumer's perception of brand equity (Keller, 1993, 2003). Specifically, secondary associations with other brands are thought to be particularly relevant in establishing attributes and benefits of a brand (Keller, 2003). Lederer and Hill (2001) recognize the impact of such secondary associations and conceptualize their connection to a comprehensive brand image through the brand portfolio molecule, where a brand's portfolio is defined as the collection of brands that could factor into the purchase intentions of a particular brand. Each brand within the portfolio carries certain individual traits or characteristics that contribute to consumers' perceptions of the other brands in the portfolio (Lederer & Hill, 2001). Extending such a conceptualization to a sponsor portfolio situation raises the possibility that the equity of a particular sponsor's brand could be influenced by the other brands present within a multiple sponsorship environment.

Consider AT&T and the consumer electronics brand LG, both NCAA sponsors. AT&T has been the NCAA's longest-standing corporate champion (Smith, 2011). Results from a recent sponsor loyalty survey demonstrated that nearly 33% of avid NCAA fans correctly identified AT&T as the NCAA's official wireless service provider (Broughton, 2015). In the consumer electronics category however, more fans incorrectly identified LG's competitor Samsung as the NCAA sponsor despite LG's sponsorship since 2009 (Lefton, 2015). AT&T and LG have a product relationship in that LG makes wireless handsets that use AT&T wireless service. If consumers conceptualize brand images within a schematic network or portfolio—as the above theory indicates—both AT&T and LG may benefit from more overtly emphasizing their common sponsorship relationship with the NCAA.

Building on McCracken's image transfer model of endorsement (1989), Gwinner (1997) focused on the sponsored property and highlighted the potential impact of various meanings brought by multiple brands in a sponsorship environment. Events with multiple sponsor associations were proposed to be more difficult to identify with a consistent image. Instead, consumers were thought to rely on whatever association was salient at the moment. In his own version of the image transfer model, Smith (2004, p. 462) conceptualizes this multiple sponsorship effect on the sponsored brand as the "composition of a sponsorship" and postulates that a more complex composition involving more sponsoring brands is likely to reduce the intensity of an image transfer. Multiple sponsorship arrangements, however, are likely to become increasing prevalent as events, teams, leagues and popular endorsers continue their ongoing quest to maximize revenue by adding sponsors. For instance, in the past two years, USATF has increased the number of sponsors in its sponsor portfolio from seven sponsors to 19, with annual sponsorship revenue increasing by \$11 million (Schoettle, 2015). Similarly, over the past four years, the Ladies Professional Golf Association (LPGA) has increased its sponsors—corresponding with its number of events—from 23 to 33, with its prize money financed by sponsors increasing nearly \$20 million (Nichols, 2015).

Neither Gwinner (1997) nor Smith (2004), however, sought to empirically investigate the spillover effects on individual sponsors within a sponsor portfolio. Perhaps the closest examination of spillover effects in a multiple brand environment came when Ruth and Simonin (2003) found that two different sponsors, one with complementary products and another with controversial products (i.e., tobacco and alcohol), can affect a sponsored property's brand in divergent ways. While they stopped short of examining effects between sponsors, they did acknowledge the need for such research.

Although empirical research on the impact of a portfolio of brand images in a single sponsorship environment is lacking, early brand alliance research has shown the physical or symbolic combination of two or more individual brands can result in spillover effects (Fang & Mishra, 2002; Rao, Qu, & Ruekert, 1999). These effects occur when consumers' perceptions of a single brand are influenced by other brands in an alliance or joint branding situation (Lebar et al., 2005; Samu, Krishnan, & Smith, 1999; Simonin & Ruth, 1998). In a cooperative advertising context, Fang and Mishra (2002) found significantly different perceptions of a fictitious, unknown brand based on the perceived quality and homogeneity of the other brands in the alliance portfolio. This result suggests the composition of brands in a multi-branded promotional situation can affect the perceptions of the individual brands present. The studies presented herein extend these findings from a brand alliance context to a sponsorship situation, where an independent organization (the sponsored property) brings together multiple sponsors seeking promotion in a sports environment.

Drawing on the theory of brand associations, their contribution to brand equity, and the empirical support in brand alliance studies, the following two hypotheses are formulated:

H₁: In a sponsor portfolio consisting of multiple brands, a positive relationship exists between consumers' perceptions of the brand equity of a particular sponsor and the brand equity of the other brands within the portfolio.

H₂: In a sponsor portfolio consisting of multiple brands, a positive relationship exists between consumers' purchase intentions for a particular brand and the brand equity of the other brands within the portfolio.

Research Method

The hypotheses outlined above are tested through an experimental between-subjects design consisting of two sport sponsorship conditions (high brand equity versus low brand equity). Each condition consists of three different brands and one common focal brand within the sponsor portfolio. The brands used in this experiment were chosen from four distinct product categories frequently involved in the sponsorship of sport properties.

Pretest and manipulation check. To develop the two portfolio conditions, narrow product subcategories of (1) automobiles, (2) big-box retailers, and (3) credit cards were intentionally selected so as to include direct competitors in each category (i.e, the BMW luxury brand would most likely not be considered a legitimate competitor to an economical automobile brand such as Kia).

A group of 36 undergraduate students were used to conduct both a pretest and a focus group to gauge familiarity with a list of brands in various product categories, then test potential manipulations between low and high equity portfolio groups, and lastly confirm validation of the chosen questionnaire items. This pretest procedure led to minor rewording of a few questions for clarification purposes. Otherwise, the experiment's operation and directionality of pretest results confirmed an adequate manipulation of the sponsor portfolios. Manipulation checks in the main study statistically confirmed the respondents' perceived difference in brand equity between the low and high portfolio conditions for each product category included (auto: $p < .001$; retail: $p < .001$; credit: $p < .001$). Table 1 presents this manipulation that includes Dodge, Kmart, and Discover Card in the low brand equity condition, and Toyota, Target, and VISA in the high brand equity condition. Marriott hotels served as the common brand in both

sponsor portfolios as the focus group demonstrated brand recognition but relatively neutral brand equity within the hotel product category. This combination of category awareness but brand neutrality was deemed most useful for experimental manipulation with some generalizability of the experiment's results.

TABLE 1:
Study 1 experimental design featuring sponsor portfolio conditions of low (group 1) and high (group 2) brand equity.

Brands	Portfolio Compositions	
	LOW	HIGH
Marriott	Group 1	Group 2
Dodge	Group 1	
Kmart	Group 1	
Discover Card	Group 1	
Toyota		Group 2
Target		Group 2
VISA		Group 2

To further enhance the practical relevance of the design and address concerns for the potential impact of the sponsored property, the top-level National Hockey League (NHL) or the lower-level American Hockey League (AHL) were assigned as the sponsored property for each portfolio condition. This essentially created a 2 (low/high portfolio) x 2 (NHL/AHL) design that was collapsed for the primary analysis when no significant difference ($\alpha = .05$) in terms of Marriott's brand equity (BE) or consumers' purchase intentions (PI) was detected between these two league assignments in either portfolio condition (low condition: BE, $p = .744$; PI, $p = .989$; high condition: BE, $p = .652$; PI, $p = .213$).

Sample and Data Collection

The sample for this study consisted of 160 undergraduate students from two Northeastern universities. The use of undergraduate students has been widely accepted in image transfer, endorsement, and experimental sponsorship designs (e.g., Chein et al., 2011; Groza et al., 2012; Gwinner & Eaton, 1999; Ruth & Simonin, 2006; Speed & Thompson, 2000).

The experiment was administered to respondents via a computer-aided system designed to give the appearance of a survey regarding various advertising layouts. At the outset, each respondent was randomly placed into one of the two sponsor portfolio conditions (high versus low brand equity). As a distractor task, subjects were first asked to assess the clarity and effectiveness of three different advertisements, which served as the stimulus for the experiment. All three ads viewed by the respondent featured a professional hockey league thanking the same four corporate sponsors for their support. The logos of each sponsor within the portfolio condition were included in all three ads. Each of the four sponsor logos were of comparable size in each advertisement and the layouts were identical between conditions except for the manipulation of sponsoring brands apart from Marriott. Following the distractor questions regarding the overall advertisements, subjects were presented with the primary questionnaire aimed at capturing their impressions of the sponsors' brand equity and their purchase intentions as related to the sponsors' products.

Measures. The primary questionnaire was composed of nine items (see Appendix A), each based on a seven-point scale. The first six items were selected from previously validated brand equity Likert scales to represent the loyalty, quality, and value association dimensions of brand equity ($\alpha = .891$) (Aaker, 1996; Yoo & Donthu, 2001; Yoo, Donthu, & Lee, 2000). The final three items captured purchase intentions through the use of a common semantic

differential scale ($\alpha = .941$) (MacKenzie, Lutz, & Belch 1986).

Results

An analysis of variance (ANOVA) was employed to statistically analyze the difference between experimental groups in this study. In order to support H₁, recall that consumers' perceptions of the brand equity of a particular sponsor (here the control sponsor Marriott) within a sponsorship portfolio composed of multiple brands must demonstrate a positive relationship to the brand equity of the other brands contained within the portfolio. Indeed, the brand equity impressions of Marriott were significantly higher when Marriott was presented within a sponsorship portfolio that contained higher equity brands (Marriott BE_{high} = 5.27 versus Marriott BE_{low} = 4.92; F(1,159) = 5.87, $p < .05$). In regard to H₂, while the rating of Marriott purchase intention was greater for the high brand equity condition as compared to the low brand equity condition, this difference was not statistically significant (Marriott PI_{high} = 5.06 versus Marriott PI_{low} = 4.79; F(1,159) = 2.04, $p > .05$), and therefore H₂ cannot be accepted based on the data analysis here. Table 2 presents a summary of the analysis of variance for both hypotheses.

Discussion

Study 1 reveals empirical evidence of a brand spillover effect between corporate sponsors of a sport property's sponsor portfolio. The results of this experiment suggest that consumers may

TABLE 2:
Cell means and ANOVA results for Study 1

	Perceptions of Control Brand Marriott	
	Brand Equity	Purchase Intent
High Brand Equity Portfolio Condition	5.27 (0.90)	5.06 (1.19)
Low Brand Equity Portfolio Condition	4.92 (1.05)	4.79 (1.29)
	F(1,159) = 5.87*	F(1,159)=2.04

Note: * $p < .05$, Standard deviation in parenthesis

attribute greater brand equity to a sponsor's brand that is part of a sponsor portfolio with other sponsors' brands that they perceive as high in brand equity. This finding extends the literature on corporate sponsorship, which has primarily been concerned with the dyadic relationship between a sponsored property and a single sponsor (e.g. Gwinner, 1997; Lebar et al., 2005; Meenaghan, 2001; Speed & Thompson, 2000).

This research also advances the brand alliance literature by extending the evidence of spillover effects to secondary associations (Keller 1993; Lederer and Hill 2001). While the sponsors' brands in this experiment did not directly align with each other to produce a co-branded product—such as the above example of AT&T (wireless service provider) and LG (wireless handset manufacturer)—or engage in an intentional co-marketing initiative (Bucklin & Sengupta, 1993), their connection to a common sponsored property, such as a sports league, led respondents to seemingly form associations between the brands and thereby influence assessments of brand equity. As a result, firms entering alliances to achieve promotional objectives should first map the secondary associations that accompany such an alliance. This mapping exercise might best be accomplished through network software (e.g. UCInet or Pajek) that also allows for analytical investigation.

The findings of Study 1 support the presence of brand equity spillover effects among sponsors within a shared property's sponsor portfolio. The purpose of Study 2 is to aid marketing managers in applying this knowledge of brand spillover effects by further investigating potential boundary conditions as related to the size and congruence of the property's sponsor portfolio.

STUDY 2

The results of Study 1 suggest that the brands within a sponsorship portfolio can in fact influence consumer perceptions of other concurrent sponsoring brands. As discussed, this finding directs managers of sponsoring brands to be cognizant of fellow sponsors. This finding also raises the potential for negative (or positive) aspects of a brand-property

sponsorship relationship to be exacerbated (or mitigated) by other brands within the sponsorship portfolio. Consider the fit or congruence between a sponsor and the property; researchers have found sponsorships involving incongruence between sponsor and property to be sub-optimal (Fleck & Quester, 2007). Since brands within a sponsor portfolio influence consumer perceptions of co-sponsors (i.e., the findings of Study 1) and considering the importance of congruence in sponsorship research and practice, in Study 2 we test the effect congruence has on concurrent sponsors within sponsor portfolios of different sizes. For instance in the case of the LPGA sponsor portfolio, is the brand image of condiment maker Smucker's influenced by more seemingly congruent sponsors such as golf equipment provider Titleist and Andrews Sports Medicine, or do sponsors with less obvious congruence such as car brand Kia and Northeastern University help counteract any potential downside to perceived incongruence for Smucker's?

Congruence / Fit

One of the most widely studied aspects of sponsorship is the importance of fit or congruence between sponsor and the sponsored property (Fleck & Quester, 2007). Low fit (versus high fit) sponsorships are generally less effective in terms of sponsor recall (Cornwell et al., 2006) and image transfer (Gwinner & Eaton, 1999). Importantly, Simmons & Becker-Olsen (2006) found that low fit sponsorships can adversely affect brand clarity, a core component of brand identity (Bhattacharya & Sen 2003). Thus, the fit between sponsor and property is a key factor marketing managers must consider when engaging in sponsorship activity.

A substantive issue faced by many sponsors and sponsored properties however, is the lack of natural fit between the two entities. Previous research suggests one avenue to assuage the adverse effects of a low-fit sponsorship is by articulating or creating a congruent attribute shared by both sponsor and property (e.g., Cornwell et al., 2006; Simmons & Becker-Olsen, 2006). For instance, USATF recently signed a sponsorship deal with Rosetta Stone, which produces software tools for learning

foreign languages--not an obvious fit with track & field (Schoettle, 2015). USATF CEO Max Siegel, however, suggests that with competing athletes traveling internationally, developing foreign language skills at a basic level is a valuable asset (Schoettle, 2015). Articulation theory indicates that explaining this relationships in promotional communication could enhance perceptions of sponsorship congruence.

Yet, characteristics of sponsorship beyond articulation that could help attenuate the negative effects of a naturally low-fit relationship have thus far been ignored. As indicated by Study 1, one such factor that may influence perceptions through a brand spillover effect is the co-sponsors within a property's sponsor portfolio. Categorization theory, which is an extension of schema theory as discussed in Study 1, provides insight to consider the role of incongruence in sponsor portfolios.

Categorization Theory

According to categorization theory, individuals cognitively implement a categorization process to organize information in a manner meaningful to them, which serves as a simplification heuristic (Loken, Barsalou, & Joiner 2008; Rosch & Mervis, 1975). These categories, or mental schemas, are created according to how similar or distinct an individual perceives the information (e.g. brands) being categorized. When considering brands as objects of information to be categorized into mental schemas, categorization theory suggests that individuals will place two or more brands perceived to have similar features within the same schema; alternatively, two or more brands that individuals perceive to possess distinct features from one another will be placed in separate schemas (Tversky, 1977). Schemas are created using features most salient to the perceiver, which suggests the possibility (and likelihood) of schema variability between individuals categorizing the same information.

To cognitively reinforce schema groupings, individuals exaggerate the similarities and differences of features relevant in the categorization decisions—an encoding bias that is explained by accentuation theory (Krueger & Clement, 1994; Tajfel, 1959). Following

accentuation theory, assimilation effects occur when individuals exaggerate similarities to reinforce schema grouping; whereas contrast effects occur when individuals exaggerate differences in features to reinforce grouping into different schemas.

By the nature of sponsorship, a sponsor desires to be associated with the sponsored property. Thus, in a sponsorship context, contrast effects between a sponsor and its sponsored property are undesirable. Rather, the sponsor is seeking an environment conducive to assimilation effects between itself and its sponsored property. In a dyadic situation where only one sponsor is featured, that sponsor—even if it possesses brand features incongruent to those of the property—may not necessarily be placed in a separate schema, depending on whether those features are salient during the encoding process. For example, many events feature a title sponsor and some also feature a presenting sponsor. In the motorsport IndyCar Series, the schedule includes several races with just a title sponsor, such as Angie's List Grand Prix of Indianapolis, Iowa Corn 300, and Toyota Grand Prix of Long Beach; meanwhile, certain events also feature a presenting sponsor in addition to the title sponsor, such as the Chevrolet Dual in Detroit presented by Quicken Loans. Where an incongruent sponsor coexists with the addition of another sponsor perceived to be more congruent with the property, contrast effects could be more salient to the perceiver, who then is more likely to place the incongruent sponsor into a separate schema. Conversely, if the two sponsors are both perceived to be congruent with the sponsored property, an individual is more likely to keep all entities (the co-sponsors and the property) in the same schema. Thus, Hypothesis 3 is proposed:

H₃: In a sponsorship portfolio, the presence of a single co-sponsor congruent (versus incongruent) to the sponsored organization will be detrimental to the brand image of an incongruent sponsor.

As categorization theory is enacted by individuals as a heuristic to simplify information complexity, the number of sponsors within a sponsor portfolio could theoretically influence the categorization process. Whereas, a lone incongruent sponsor

in a two-sponsor situation is expected to be the victim of detrimental contrast effects, the cognitive processing load required by an individual to categorize a large sponsor portfolio may attenuate such contrast effects. This theoretical attenuation of contrast effects has been documented in a prior study that investigated the effects of sponsor incongruence on the brand of the sponsored property (Groza et al., 2012). Thus, Hypothesis 4 is proposed:

H₄: The size of the sponsorship portfolio will moderate the negative contrast effect congruent co-sponsors have on the brand image of an incongruent sponsor such that co-sponsors will have a weaker effect in a portfolio of larger size.

Research Method

To test H₃ and H₄, a 2 (congruence of co-sponsor(s): congruent versus incongruent to property) x 2 (portfolio size: 1 versus 5 co-sponsors (in addition to the target incongruent sponsor)) between subjects factorial design was used. The same target incongruent sponsor was present in all four conditions. Similar to Study 1, actual brands were used in developing the incongruent and congruent sponsor portfolios. Both sponsor portfolios consisted of sponsors within one of five product categories (i.e. sunscreen, airlines, sportswear, beer, and wine) not used in Study 1.

Experimental Design

To develop the two sponsor portfolios, image-based congruence in the form of nationality was chosen as the common fit dimension, and a sponsored sport property—the United States Australian Football League (USAFL)—was selected for relevance to nationality congruence manipulation. Furthermore, the sponsoring brands selected for the study were not functionally similar to the sponsored property. These design choices were aimed at minimizing confounds by maintaining consistency in the fit dimension across brands from several different product categories (Poon & Prendergast, 2006). The target incongruent sponsor in each condition was Buca di Beppo restaurants, which was chosen because of its nationality incongruence to the sport property and

relatively neutral brand image results in a pretesting focus group. The congruent sponsor portfolio consisted of Australian brands (Australian Gold, Qantas Airlines, Greg Norman Collection, Fosters, and Yellow Tail), while the incongruent sponsor portfolio consisted of brands of differing national origin from one another (Banana Boat, Singapore Airlines, Cutter & Buck, Dos Equis, and Ernest & Julio Gallo). Manipulation checks utilizing the three-item congruence scale of Fleck and Quester (2007) confirmed that subjects' perceptions of congruence of the co-sponsor(s) were in fact consistent with the intended fit manipulations.

Sample and Data Collection

The convenience sample for the second study consisted of 106 participants recruited through contact lists developed by alumni and students of two Northeastern universities. There was no participant overlap between the samples in Study 1 and Study 2. Study participants were randomly assigned to one of the four experimental conditions (cell sizes ranged from $n = 24$ to $n = 29$). Consistent with prior experimental research on sponsorship (e.g., Cornwell et al., 2006; Johar & Pham, 1999), press releases—presented in Appendix B—were used to announce the collection of fictitious sponsorships between the portfolio's sponsoring firms and the single property.

Measures

Similar to prior work addressing sponsorship fit (e.g., Simmons & Becker-Olsen, 2006; Chein et al., 2011), we measure two specific components of brand image as the study's dependent variables: brand meaning distinctiveness ($\alpha = .90$) and brand meaning clarity ($\alpha = .71$) for the target incongruent sponsor. Both dependent variables were measured using established scales shown in Appendix B (Curras-Perez, Bigne-Alcaniz, & Alvarado-Herrera 2009; Simmons & Becker-Olsen, 2006).

Results

Two 2 x 2 ANOVAS were estimated using clarity of positioning and brand distinctiveness as the dependent variables. Neither ANOVA yielded significant main effects for congruence

of co-sponsor(s) or portfolio size. Yet, both analyses yielded a significant two-way interaction of the two factors, lending support to the study’s hypotheses (distinctiveness: $F(1,100) = 4.264, p < 0.05$; clarity: $F(1,100) = 4.491, p < 0.05$). The statistical results can be found in Table 3.

In the presence of only one co-sponsor, brand distinctiveness and brand clarity of the focal incongruent sponsor were lower when paired with a congruent (versus incongruent) co-sponsor. This finding suggests a negative contrast effect is salient when the incongruent sponsor is paired in a portfolio with just one other sponsor and that co-sponsor is congruent to the property—as predicted by H_3 . Conversely, in the presence of five co-sponsors, brand clarity and distinctiveness of the focal incongruent sponsor were each higher when the portfolio consisted of otherwise congruent (versus incongruent) co-sponsors. This result supports H_4 and implies that individuals use a simplification heuristic to categorize brands involved in larger, more complex sponsorship portfolios. Figure 1 and Figure 2 demonstrate this interaction effect for both dependent variables—brand distinctiveness and clarity, respectively.

Discussion

This second study contributes to the literature on corporate sponsorship by investigating the key concept of congruence in the underserved domain of sponsor portfolios of various sizes. The results offer guidance for firms interested in sponsorship as a marketing tool but without inherent congruence to most commonly sponsored properties. Specifically, the study’s findings demonstrate that incongruent sponsors should aim to align with sponsored properties that possess either small portfolios inclusive of another incongruent sponsor, or larger

portfolios composed primarily of co-sponsors congruent to the sponsored property. Conversely, situations that pair the incongruent sponsor with a single congruent co-sponsor or within a larger group of incongruent sponsors should be avoided. Thus, the tactic adopted by USATF of building its sponsorship portfolio by securing primarily incongruent sponsors (Schoettle, 2015) is likely to be suboptimal for its current sponsors.

MANAGERIAL IMPLICATIONS

In evaluating sponsorship opportunities, firms would be wise to appraise the holistic portfolio of brands present in the sporting environment. Where a single co-sponsor exists or a title sponsor is prominently featured with the property, potential new sponsors—particularly those incongruent to the sponsored property—need to assess the congruence of the current (or title) sponsor in comparison with their own brand. If that current sponsor is congruent to the property, other incongruent sponsors may be wise to look for other opportunities. Of particular interest for potentially incongruent sponsors should be sponsored properties with an existing portfolio of many congruent sponsors. For instance, if retailer Walmart is considering presenting sponsorship of a race in the IndyCar Series, Walmart brand managers would be prudent to select a race with a title sponsor also seemingly incongruent to motorsport, such as the Angie’s List Grand Prix of Indianapolis instead of the Honda Indy Grand Prix of Alabama.

In line with Cobbs’ (2011) suggestion, sponsored properties should leverage their position as a potential connector of its sponsors and give adequate consideration to the network implications of adding particular firms as new sponsors, such as sponsors with existing business relationships or in complementary

TABLE 3:
2-way ANOVA results (F-value) for Study 2

	Brand Distinctiveness	Brand Clarity
Co-Sponsor Congruence	.024	.02
Portfolio Size	1.513	2.742
Interaction	4.264*	4.491*
Note: Gender and age as covariates, $F(1,100)$, * $p < .05$		

FIGURE 1:
Study 2 interaction effects of congruence of co-sponsors and portfolio size on the brand distinctiveness of incongruent sponsor.

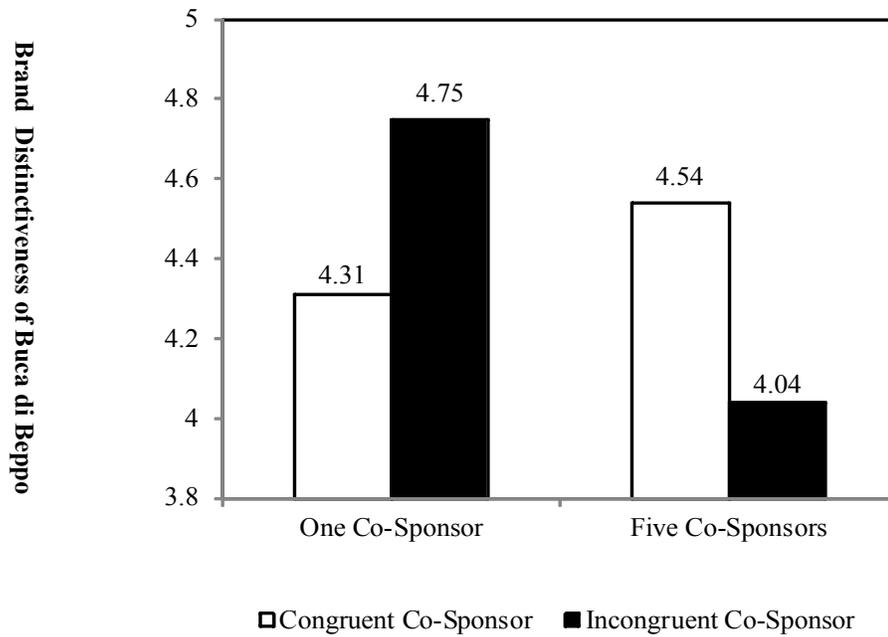
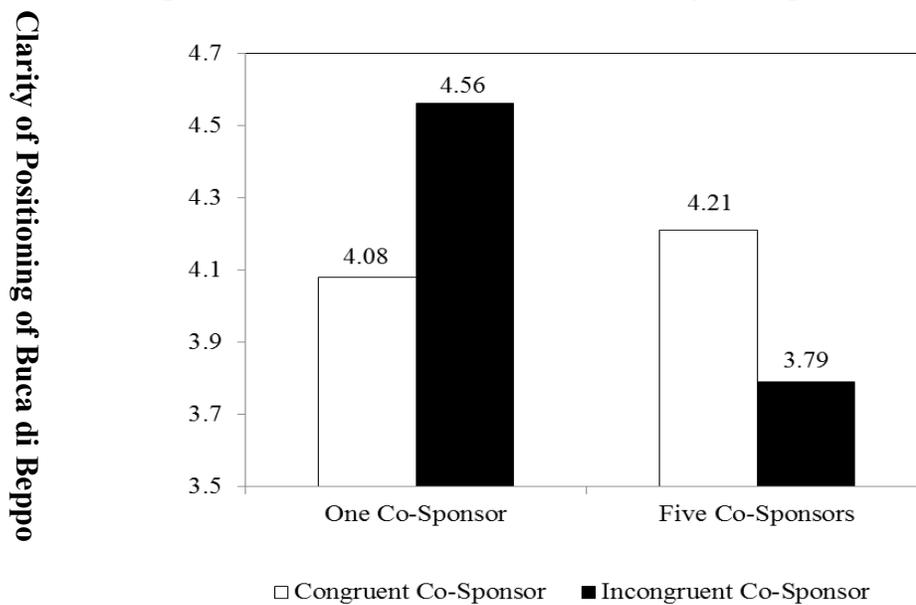


FIGURE 2:
Study 2 interaction effects of congruence of co-sponsors and portfolio size on the brand clarity of incongruent sponsor.



categories (e.g., AT&T and LG). The National Association for Stock Car Auto Racing (NASCAR) has adopted this tactic with its Fuel for Business Council that connects NASCAR sponsors in a speed dating format designed to spark cooperative sponsorship promotion and further business-to-business relationships (IEG, 2011). Scholars can facilitate this initiative by utilizing the analytical tools of network analysis to engage a full sponsorship portfolio in investigations of inter-organizational relational dynamics that include network constraints, power, and brokerage (Erickson & Kushner, 1999).

This set of studies has demonstrated the plausibility of brand spillover within sponsor portfolios. Specifically, the other brands sponsoring a common sports property are likely to influence one another's brand image. As a result, when evaluating sponsorship opportunities, marketing managers must assess not only the brand of the sponsored property but also the brand of potential co-sponsors within the portfolio. Those marketers managing a brand incongruent to sponsored properties also need to be cognizant of the size and general congruence of the sponsor portfolio. Previous to this work, managers had to rely on assessments of dyadic sponsor-property relations in making decisions. However, these studies offer empirical evidence to direct managers toward more informed decision making when evaluating a multi-sponsor environment.

LIMITATIONS

While this investigation has penetrated a domain common to industry practice (simultaneous co-sponsors), several limitations are evident in these two studies. First, each study is purposefully designed as an experiment and thereby makes a tradeoff of controlled theory testing but limited immediate field application. While the results are valuable in empirically demonstrating the influence of co-sponsor brands within multiple portfolio conditions, the studies' stimuli are contrived for the testing purpose and viewed in a computer-aided fashion as opposed to sport consumers digesting sponsor portfolios as part of their actual leisure routine. Likewise, the portfolios evaluated here featured

either two, four, or six sponsoring brands, but sponsor portfolios in practice can encompass a group of co-sponsors well beyond just five other brands. For instance, teams in the NBA commonly maintain sponsor portfolios that include 50 or more companies (e.g., Atlanta Hawks list 60 corporate partners; Boston Celtics 56; Sacramento Kings 52). Yet, the difference in portfolio size tested here (two versus six sponsors) was sufficient to generate differential effects. Finally, the use of actual brands common to sponsorship enhances the realism of the experiments but also raises the question of respondents' preconceived brand notions. In future research using real brands, larger samples that also employ random assignment may help to further reduce such concerns.

FUTURE RESEARCH

As related to the limitations discussed above, future research should evaluate sponsorship portfolios of sizes beyond two, four, and six to determine if the spillover effects supported here are consistent as the number of sponsors increases. The potential for diminished recall and recognition of sponsors as portfolio size rises may also be worthwhile to test. Likewise, various dimensions of congruence (e.g., functional versus image; Gwinner & Eaton, 1999) could be studied within sponsorship portfolios to gauge if the effects demonstrated here in the context of nationality congruence are applicable to other fit dimensions. Each side of the sponsorship exchange relationship could realize positive implications from such research perspectives.

Future work should also add the detail of various sponsorship levels (i.e., title sponsor, presenting sponsor, etc.) and related affiliations (e.g., team versus league versus player sponsorship) that have permeated sponsorship practice. Do sports consumers make a distinction between team, league, event or venue sponsors; or do fans mix these related sponsored properties' portfolios into one larger portfolio? For example, the International Olympic Committee (IOC) boasts twelve top sponsors; whereas the United States Olympic Committee (USOC) and the British Olympic Association (BOA) claim 26 and seven domestic team sponsors respectively.

Furthermore, the Rio 2016 Olympic Games maintains a sponsor portfolio of five corporate partners and nine additional 'official supporters.' Advancing beyond past work, future research in this domain should take a broader perspective of the sponsorship environment. Instead of focusing on a single alliance between a sponsor and a team, which has dominated previous research, the full context of the commercial sponsorship portfolio needs to be considered.

REFERENCES

- Aaker, D. A. (1991). *Managing Brand Equity*. New York: Free Press.
- Aaker, D. A. (1996). Measuring brand equity across products and markets. *California Management Review*, 38(3), 102-120.
- Bhattacharya, C. B., & Sen, S. (2003). Consumer-company identification: A framework for understanding consumers' relationships with companies. *Journal of marketing*, 67(2), 76-88.
- Broughton, D. (2015, April 27). Coke gets 'Zero' recognition in college sports. *Street & Smith's Sports Business Journal*. Retrieved from <http://www.sportsbusinessdaily.com/Journal/Issues/2015/04/27/Research-and-Ratings/NCAA-Sponsor-Loyalty.aspx>.
- Bucklin, L. P., & Sengupta, S. (1993). Organizing successful co-marketing alliances. *The Journal of Marketing*, 32-46.
- Carrillat, F. A., Harris, E. G., & Lafferty, B. A. (2010). Fortuitous brand image transfer. *Journal of Advertising*, 39(2), 109-123.
- Chien, P. M., Cornwell, T. B., & Pappu, R. (2011). Sponsorship portfolio as a brand-image creation strategy. *Journal of Business Research*, 64(2), 142-149.
- Cobbs, J. (2011). The dynamics of relationship marketing in international sponsorship networks. *Journal of Business & Industrial Marketing*, 26(8), 590-601.
- Cornwell, T. B., Humphreys, M. S., Maguire, A. M., Weeks, C. S., & Tellegen, C. L. (2006). Sponsorship-linked marketing: The role of articulation in memory. *Journal of Consumer Research*, 33(3), 312-321.
- Crowley, M. G. (1991). Prioritising the sponsorship audience. *European Journal of Marketing*, 25(11), 11-21.
- Curras-Perez, R., Bigne-Alcaniz, E. & Alvarado-Herrera, A. (2009). The role of self-definitional principals in consumer identification with a socially responsible company. *Journal of Business Ethics*, 89: 547-564.
- Erickson, G. S., & Kushner, R. J. (1999). Public events networks: an application of marketing theory to sporting events. *European Journal of Marketing*, 33(3/4), 348-365.
- Fang, X., & Mishra, S. (2002). The effect of brand alliance portfolio on the perceived quality of an unknown brand. *Advances in Consumer Research*, 29(1), 519-520.
- Farrelly, F., & Quester, P. (2003). The effects of market orientation on trust and commitment: The case of the sponsorship business-to-business relationship. *European Journal of Marketing*, 37(3/4), 530-553.
- Fang, X., & Mishra, S. (2002). The effect of brand alliance portfolio on the perceived quality of an unknown brand. *Advances in Consumer Research*, 29(1), 519-520.
- Fleck, N. D., & Quester, P. (2007). Birds of a feather flock together...definition, role and measure of congruence: An application to sponsorship. *Psychology & Marketing*, 24 (11), 975-1000.
- Groza, M. D., Cobbs, J., & Schaefer, T. (2012). Managing a sponsored brand: The importance of sponsorship portfolio congruence. *International Journal of Advertising*, 31(1), 63-84.
- Gwinner, K. P. (1997). A model of image creation and image transfer in event sponsorship. *International Marketing Review*, 14(2/3), 145-158.
- Gwinner, K. P., & Eaton, J. (1999). Building brand image through event sponsorship: The role of image transfer. *Journal of Advertising*, 28(4), 47-57.
- Halford, G. S., Bain, J. D., Mayberry, T. M., & Andrews, G. (1998). Induction of relational schemas: Common processes in reasoning and complex learning. *Cognitive Psychology*, 35(3), 201-245.
- Hoeffler, S., & Keller, K. L. (2003). The marketing advantages of strong brands. *Journal of Brand Management*, 10(6), 421-445.

- Hunt, J. M., Kernan, J. B., & Bonfield, E. H. (1992). Memory structure in the processing of advertising messages: How is unusual information represented? *Journal of Psychology*, 126(4), 343-356.
- International Events Group (IEG) (2011, June 30). NASCAR's Fuel for Business Council working to boost business-to-business deals between sponsors. Retrieved from <http://www.sponsorship.com/About-IEG/IEG-In-The-News/NASCAR-s-Fuel-for-Business-Council-Working-to-Boos.aspx>
- International Events Group (IEG) (2015a, January 26). Sponsorship spending report: Where the dollars are going and trends for 2015. Retrieved from <http://www.sponsorship.com/Resources/Sponsorship-Spending-Report--Where-The-Dollars-Are.aspx>
- International Events Group (IEG) (2015b, June 1). Awards show sponsorship to total \$133.5 million in 2015. Retrieved from [http://www.sponsorship.com/Latest-Thinking/Sponsorship-Infographics/Awards-Show-Sponsorship-to-Total-\\$133-5-Million-in.aspx](http://www.sponsorship.com/Latest-Thinking/Sponsorship-Infographics/Awards-Show-Sponsorship-to-Total-$133-5-Million-in.aspx)
- Jensen, J. A., & Cobbs, J. (2014). Predicting return on investment in sport sponsorship: Modeling brand exposure, price, and ROI in Formula One automotive competition. *Journal of Advertising Research*, 54(4), 435-447.
- Johar, G.V., & Pham, M.T. (1999). Relatedness, prominence, and constructive sponsor identification. *Journal of Marketing Research*, 36(3), 299-312.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1-22.
- Keller, K. L. (2003). Brand synthesis: The multidimensionality of brand knowledge. *Journal of Consumer Research*, 29(4), 595-600.
- Krueger, J. & Clement, R. D. (1994). Memory-based judgments about multiple categories: A revision and extension of Tajfel's accentuation theory. *Journal of Personality and Social Psychology*, 67(1), 35-47.
- Lebar, E., Buehler, P., Keller, K. L., Sawicka, M., Aksehirli, Z., & Richey, K. (2005). Brand equity implications of joint branding programs. *Journal of Advertising Research*, 45(4), 413-425.
- Lederer, C., & Hill, S. (2001). See your brands through your customers' eyes. *Harvard Business Review*, 79(6), 125-133.
- Lefton, T. (2015, May 21). Sports business awards: AT&T wins sports sponsor of the year. *Sports Business Journal*. Retrieved from <http://www.sportsbusinessdaily.com/Daily/Issues/2015/05/21/Sports-Business-Awards/ATT.aspx>.
- Loken, B., Barsalou, L. W., & Joiner, C. (2008). Categorization theory and research in consumer psychology: Category representation and category-based inference. In C. P. Hugtvedt, F. Kardes, & P. Herr (Eds.). *Handbook of Consumer Psychology* (pp. 133-163). Mahwah, NJ: Lawrence Erlbaum Associates.
- MacKenzie, S. B., Lutz, R. J., & Belch, G. E. (1986). The role of attitude toward the ad as a mediator of advertising effectiveness: A test of competing explanations. *Journal of Marketing Research*, 23(2), 130-143.
- Maestas, A. J. (2009). Guide to sponsorship return on investment. *Journal of Sponsorship*, 3(1), 98-102.
- McCracken, G. (1989). Who is the celebrity endorser? Cultural foundations of the endorsement process. *Journal of Consumer Research*, 16(3), 310-321.
- Meenaghan, T. (1983). Commercial sponsorship. *European Journal of Marketing*, 17(7), 5-73.
- Meenaghan, T. (1991). Sponsorship: Legitimising the medium. *European Journal of Marketing*, 25(11), 5-10.
- Meenaghan, T. (2001). Understanding sponsorship effects. *Psychology & Marketing*, 18(2), 95-122.
- Meenaghan, T., & Shipley, D. (1999). Media effect in commercial sponsorship. *European Journal of Marketing*, 33(3/4), 328-348.
- Nichols, B. A. (2015, March 31). He's a keeper: Whan's contract extended as historic LPGA stop lives. *Golfweek.com*. Retrieved from <http://golfweek.com/news/2015/mar/31/lpga-ana-inspiration-2015-mike-whan-kraft-sponsor/>
- Pearsall, J. (2010). Sponsorship performance: What is the role of sponsorship metrics in proactively managing the sponsor-property relationship? *Journal of Sponsorship*, 3(2), 115-123.

- Poon, D. T. Y. & G. Prendergast, G. (2006). A new framework for evaluating sponsorship opportunities. *International Journal of Advertising* 25(4), 471-487.
- Rao, A. R., Qu, L., & Ruckert, R. W. (1999). Signaling unobservable product quality through a brand ally. *Journal of Marketing Research*, 36(2), 258-268.
- Rosch, E. & Mervis, C. B. (1975). Family resemblances: Studies in the internal structural categories. *Cognitive Psychology*, 7(4), 573-605.
- Roy, D. P., & Cornwell, T. B. (2003). Brand equity's influence on responses to event sponsorships. *Journal of Product & Brand Management*, 12(6), 377-393.
- Roy, D. P., & Cornwell, T. B. (2004). The effects of consumer knowledge on responses to event sponsorships. *Psychology & Marketing*, 21(3), 185-207.
- Ruth, J. A., & Simonin, B. L. (2003). 'Brought to you by brand A and brand B': Investigating multiple sponsors' influence on consumers' attitudes toward sponsored events. *Journal of Advertising* 32(3), 19-30.
- Ruth, J. A., & Simonin, B. L. (2006). The power of numbers: Investigating the impact of event roster size in consumer response to sponsorship. *Journal of Advertising*, 35(4), 7-20.
- Samu, S. H., Krishnan, S., & Smith, R. E. (1999). Using advertising alliances for new product introduction: Interactions between product complementarity and promotional strategies. *Journal of Marketing*, 63(1), 57-74.
- Schoettle, A. (2015, March 21). USA Track & Field CEO's unorthodox approach diversifies sponsor base. *Indianapolis Business Journal*. Retrieved from <http://www.ibj.com/articles/52349-usa.track-field-ceos-unorthodox-approach-diversifies-sponsor-base>.
- Simonin, B. L., & Ruth, J. A. (1998). Is a company known by the company it keeps? Assessing the spillover effects of brand alliances on consumer brand attitudes," *Journal of Marketing Research*, 35(1), 30-42.
- Simmons, C. J., & Becker-Olsen, K. L. (2006). Achieving marketing objectives through social sponsorships. *Journal of Marketing*, 70(4), 154-169.
- Smith, G. (2004). Brand image transfer through sponsorship: a consumer learning perspective. *Journal of Marketing Management*, 20(3/4), 457-474.
- Smith, M. (2011, October 24). NCAA keeps AT&T as corporate champion. *Street & Smith's Sports Business Journal*. Retrieved from <http://www.sportsbusinessdaily.com/Journal/Issues/2011/10/24/Marketing-and-Sponsorship/ATT.aspx>.
- Speed, R., & Thompson, P. (2000). Determinants of sports sponsorship response. *Journal of the Academy of Marketing Science*, 28(2), 227-238.
- Tajfel, H. (1959). Quantitative judgment in social perspective. *British Journal of Psychology*, 50(1), 207-218.
- Till, B. D., & Busler, M. (1998). Matching products with endorsers: Attractiveness versus expertise. *Journal of Consumer Marketing*, 15(6), 576-586.
- Tversky, A. (1977). Features of similarity. *Psychological Review*, 84(4), 327-352.
- Uggla, H. (2004). The brand association base: A conceptual model for strategically leveraging partner brand equity. *Journal of Brand Management*, 12(2), 105-123.
- Weeks, C. S., Cornwell, T. B., & Drennan, J. C. (2008). Leveraging sponsorships on the Internet: Activation, congruence, and articulation. *Psychology & Marketing*, 25(7), 637-654.
- WilliamsF1 (2015, May 30). Our partners. Retrieved from <http://www.williamsf1.com/racing/about/our-partners>
- Yoo, B. & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, 52, 1-14.
- Yoo, B., Donthu, N. & Lee, S. (2000). An examination of selected marketing mix elements and brand equity. *Journal of the Academy of Marketing Science*, 28(Spring), 195-211.

**APPENDIX A:
Study 1**

Dependent variable measures of brand equity: loyalty, quality, value (via Aaker, 1996; Yoo & Donthu, 2001; Yoo, et al., 2000; 7-point agree/disagree scale), **and purchase intentions** (via MacKenzie, et al., 1986)

I would consider Marriott a top choice for hotel accommodations.
The likely quality of Marriott is extremely high.
The likelihood that Marriott would be practical for hotel accommodations is very high.
I would seriously consider Marriott for my next hotel stay.
Marriott provides good value for the money.
There are reasons to select Marriott over competitors.

If you were in the market today for hotel accommodations, how likely do you feel it is that you would select Marriott?
Very unlikely/Very likely
Very improbable/Very probable
Very impossible/Very possible

**APPENDIX B:
Study 2**

Press release stimuli example from congruent, single co-sponsor condition

USAFL and Buca di Beppo Announce “The Buca di Beppo United States Australian Football League presented by Australian Gold”

Together with Buca di Beppo, the United States Australian Football League (USAFL) recently announced a three-year title sponsorship agreement between the official Australian-rules football league in the United States, the USAFL, and Buca di Beppo Italian Restaurants. The USAFL also announced that Australian Gold sunscreen will be the presenting sponsor of the league for the next three seasons beginning in 2011. The USAFL hopes to use the sponsorship agreements to help popularize Australian-rules football (also known as Footy) in the United States.

The league will be officially referred to as: “The Buca di Beppo United States Australian Football League presented by Australian Gold.”

Dependent variable measures of brand distinctiveness and clarity (Curras-Perez et al., 2009; Simmons & Becker-Olsen, 2006; 7-point agree/disagree scale)
To what extent do you agree with the following statements?

Buca di Beppo...
...is different from the other brands in the sector
...is different from the rest of its competitors
...stands out from its competitors
...clearly communicates what it stands for
...has an image that is difficult to understand
...conveys a clear image in all of its actions

ADVERTISING INTERFERENCE: FACTORS AFFECTING ATTENTION TO SUPER BOWL ADVERTISEMENTS AND THEIR EFFECTIVENESS

MYA PRONSCHINSKE GROZA, Northern Illinois University

Advertising interference occurs when viewers are exposed to multiple advertising messages for various brands within a short period of time. A study featuring a highly-cluttered advertising event, Super Bowl XLIX, is conducted to examine what factors influence the attention paid to the advertisements and the effectiveness of individual advertisements. Utilizing hierarchical regression analysis of survey data collected from 343 viewers in the days following the event, results indicate that NFL fans pay more attention to the advertisements during the Super Bowl broadcast. Attention then acts as a mediating variable leading to advertising effectiveness. An ancillary study is added from additional data gathered in the survey. Respondents indicated adjectives to describe their emotional responses to their favorite and least favorite advertisements. Humorous, memorable, creative, and attention-getting adjectives elicit desirable emotional responses and may be one way to break through the clutter to garner the attention of viewers.

INTRODUCTION

To have a commercial aired during the 2015 NFL (National Football League) Super Bowl, advertisers paid \$4.5 million dollars for a 30-second spot – the most ever paid in the history of television advertising (Ferrario, 2015). Additionally, according to the Nielsen Company a record-breaking audience of 114.4 million people tuned in for the 2015 Super Bowl. While this enormous audience may provide initial justification for the high cost of advertising during the game, important questions persist regarding the true value of Super Bowl advertising (Kalb, 2013). Consider for example that there were 70 national ads aired during Super Bowl XLIX and according to a study conducted by the Media Education Foundation about the 2014 Super Bowl broadcast, 24% or 48 minutes of the entire broadcast was dedicated to ads including commercials and on-screen promotions. The sheer volumes of information viewers are exposed to during a relatively short period of time can be overwhelming for the viewing public (Moorman, Willemsen, Neijens, & Smit, 2012). Thus, while advertisers hope to capitalize on the Super Bowl broadcast's large television audiences, they must also hope that viewers will pay attention to their multi-million

dollar advertisements. Hence, the important question in this context is: how do advertisers ensure they are breaking through the “clutter” of multiple factors to enhance their advertising effectiveness?

“Clutter” is a commonly used term which describes situations when there is a “combination of commercials and other nonprogram material, such as program promotions and public service announcements” (Danaher, Bonfrer, & Dhar, 2008, p. 212) occurring during a short period of time with regards to television broadcasts. This advertising interference that occurs is a great concern for advertising practitioners and thus has garnered attention from scholars. Previous research in the area of advertising interference has occurred in controlled, laboratory settings (Kent & Allen, 1994), used unfamiliar brands (Kent & Allen, 1994), and focused on the competitive interference that occurs in a single product category (e.g., two competing brands advertising during a single television broadcast) (Danaher et al., 2008).

The current research aims to address these limitations and examine advertising interference in a natural environment – the Super Bowl broadcast – where the brands are (mostly) familiar and the advertising competition occurs across multiple product categories simultaneously (e.g., automotive vehicles, motion pictures, soft drinks, etc.). During the live airing of the 2015 Super Bowl

broadcast, 16 automotive commercials aired, 16 food and beverage commercials, nine that highlighted upcoming movie releases, eight online services brands, seven from insurance and finance brands, five commercials from the technology and telecommunications industry, four from consumer packaged goods brands, three fashion commercials, one public service announcement (PSA), and one commercial from a brand in the travel industry was aired. Table 1 includes the 70 national advertisements that aired during the 2015 broadcast. Clutter, in

this context, exists in viewing the other advertisements, a half time show, the championship game, and possible social factors such as viewing the event in the presence of others during a “watch party.” Thus, the purpose of this paper is to complement the existing research and extend into the area of examining how advertisers break through to negate the advertising interference, or “clutter”, which exists during one highly-viewed event, the Super Bowl broadcast.

TABLE 1:
Super Bowl XLIX National Advertisements

Period	Brand	Industry	Ad Duration
First	Snickers	Food & Beverage	30-second
	“Minions” (Universal)	Movies	30-second
	BMW	Automotive	60-second
	“Tomorrowland” (Disney)	Movies	30-second
	Game of War	Online Services	30-second
	Turbo Tax	Insurance & Finance	60-second
	Toyota	Automotive	60-second
	Esurance	Insurance & Finance	30-second
	Chevy	Automotive	30-second
	“Jurassic World” (Universal)	Movies	60-second
	McDonald’s	Food & Beverage	30-second
	Chevy	Automotive	30-second
	“SpongeBob Movie” (Paramount)	Movies	30-second
	Pizza Hut	Food & Beverage	30-second
	Verizon	Technology & Telecommunications	30-second
	Reebok	Fashion	60-second
	Chevy	Automotive	15-second
	“Kingsman: The Secret Service” (Fox Films)	Movies	30-second
	Subway	Food & Beverage	30-second
	Mountain Dew Kickstart	Food & Beverage	30-second
Second	Chevy	Automotive	45-second
	Squarespace	Online Services	30-second
	Microsoft	Online Services	60-second
	Discover	Insurance & Finance	30-second
	GoDaddy.com	Online Services	30-second
	Fiat	Automotive	60-second
	Esurance	Insurance & Finance	30-second
	McDonald’s	Food & Beverage	60-second
	WeatherTech	Automotive	30-second
	WeightWatchers	Food & Beverage	30-second
Nationwide	Insurance & Finance	45-second	

TABLE 1: (Continued)

	Nissan	Automotive	90-second
	Doritos	Food & Beverage	30-second
	Dove Men+Care	Consumer Packaged Goods	30-second
	“Furious 7” (Universal)	Movies	60-second
	Avocados From Mexico	Food & Beverage	30-second
	Coca-Cola	Food & Beverage	60-second
	“Terminator: Genisys” (Paramount)	Movies	30-second
	Nationwide	Insurance & Finance	45-second
	Budweiser	Food & Beverage	60-second
	T-Mobile	Technology & Telecommunications	30-second
	Lexus	Automotive	30-second
	Skittles	Food & Beverage	30-second
	Carnival	Travel	60-second
Halftime	NFL Domestic Violence	PSA	30-second
	Skechers	Fashion	15-second
	Geico	Insurance & Finance	15-second
	Always	Consumer Packaged Goods	60-second
	Pepsi	Food & Beverage	30-second
	Toyota	Automotive	60-second
Third	Jeep	Automotive	90-second
	Budweiser	Food & Beverage	60-second
	T-Mobile	Technology & Telecommunications	30-second
	Jublia	Consumer Packaged Goods	30-second
	Kia	Automotive	60-second
	Dodge	Automotive	60-second
	Microsoft	Online Services	60-second
	Lexus	Automotive	30-second
	Sprint	Technology & Telecommunications	30-second
	Clash of Clans	Online Services	60-second
Fourth	Heroes Charge	Online Services	15-second
	Victoria’s Secret	Fashion	30-second
	Wix.com	Online Services	30-second
	Doritos	Food & Beverage	30-second
	“Fifty Shades of Grey” (Universal)	Movies	30-second
	Mercedes-Benz	Automotive	60-second
	Bud Light	Food & Beverage	90-second
	Loctite	Consumer Packaged Goods	30-second
	Mophie	Technology & Telecommunications	30-second
	“Ted 2” (Universal)	Movies	30-second

Note. The commercials are presented in the order in which they aired during the February 1, 2015 broadcast.

The model developed in this paper suggests attention to the advertisements is a key factor influencing the effectiveness of individual Super Bowl advertisements. Two factors, (1) the degree to which a viewer is a fan of the NFL and the (2) social environment in which the individual is viewing the game, are proposed to affect advertising attention. Advertising attention, in turn, is proposed to positively influence advertising effectiveness. Advertising effectiveness is the degree to which a company's advertisement accomplishes their intended goals of inducing a "consumer to like the brand, improve the image, and/or purchase the brand" (Okazaki, Taylor, & Zou, 2006). Thus, advertising effectiveness is the extent to which an advertisement causes positive responses to the brand. To test these predictions hierarchical ordinary least squared (OLS) regression was conducted utilizing survey data collected from a sample of 343 individuals who watched Super Bowl XLIX. Additionally, to provide substantive guidance to advertisers, comparisons between respondents "favorite" and "least favorite" advertisement is conducted. This research isolates qualities of a respondent's recalled favorite and least favorite advertisement in the days following the broadcast to better understand what emotional responses come from a recalled single favorite and single least favorite advertisement. The remainder of this paper is organized as follows. After reviewing relevant literature, the formal hypotheses are proposed. Next, a detailed account of the methods utilized to test the study's hypotheses is presented. Then, discussion of the ancillary study is offered. Finally, the results are presented and the implications for practice and directions for future research are discussed.

RELEVANT LITERATURE

The advertising that occurs through the Super Bowl broadcast has become a popular choice for advertising research studies (Fehle, Tsyplakov, & Zdorovtsov, 2005; Jin, 2003; Jin, Su, & Donovan, 2008; Jin, Zhao, & An, 2006; Kim, Freling, & Eastman, 2013; Newell & Henderson, 1998; Pavelchak, Antil, & Munch, 1988; Tomkovick, Yelkur, & Christians, 2001; Yelkur, Tomkovick, & Traczyk, 2004). Pavelchak and colleagues (1988) provided the first Super Bowl study highlighting that viewers

from the winning and losing teams' cities had greater emotional reactions with the telecast which actually caused a *negative* reaction for ad recall. Jin and colleagues (2006; 2008) have focused on the importance of publicity effects for the advertisements; specifically, pre-advertising garners publicity for the upcoming Super Bowl commercial which is referred to as the facilitative effect (Jin, 2003). When this publicity of the advertisements occurs, ads are better recalled than recognized (Jin et al., 2006), and an inhibition effect occurs for brands that have been publicized meaning that publicized brands are strengthened while inhibiting the recall of other related brands (Jin et al., 2008). Research suggests that advertising through the Super Bowl can be very effective for launching new products (Yelkur et al., 2004) such as the launch of a movie premiere. Scholars have also studied the impact of advertising in the Super Bowl on the financial performance of the firm by focusing on stock market returns. Similar to the attitudinal studies discussed above, these studies have found mixed results regarding the effectiveness of Super Bowl advertising (Fehle et al., 2005; Kim et al., 2013).

These mixed results may be partly explained by the negative effects of advertising interference that occurs in the Super Bowl broadcast as numerous national brands are highlighted during a short period of time (70 ads in 2015). Prior research has identified the negative effects of competitive interference on sales (Danaher et al., 2008), and brand recognition (Zanjani, Diamond, & Chan, 2011). Danaher and colleagues (2008) find that competitive interference has a significant and negative effect on advertising effectiveness. Zanjani et al. (2011) find that print advertising clutter negativity impacts brand recognition. This research bridges the theoretical foundations from research on advertising interference and applies the concept in a study where interference is very high – the Super Bowl broadcast. Next, the study's formal research hypotheses are developed.

HYPOTHESES DEVELOPMENT

Being a NFL Fan

Researchers have found when viewers have an interest in the sporting team or sport it causes an enduring involvement in which fans spend considerable time and resources to be a part of the sport (Funk & James, 2001). Watching a television broadcast of a sport has been found to elicit a continuum of emotional responses based on how involved one is with the game – the more involved one is, the greater the emotional response (Newell, Henderson, & Wu, 2001). This program involvement also causes a heightened attention paid to a broadcast (Moorman et al., 2012). It is hypothesized that being a NFL fan will cause a heightened emotional response during the Super Bowl broadcast which in turn, will cause fans (compared with nonfans) to pay greater attention to the broadcast (including advertisements broadcasted during the Super Bowl). This leads to Hypothesis 1:

H₁: Being a NFL fan has a positive effect on ad attention during the Super Bowl. Thus, people who are involved with the sport of professional football as a fan will have higher ad attention.

Social Environment: Viewing Company

Sports broadcasts generate the social environments that allow individuals to be more expressive than when they view a sport alone (Denham, 2004). Moorman and colleagues (2012) put this idea to test with Dutch soccer fans during a FIFA World Cup match and found that watching the match outside of the home and in the company of others produced greater attention to the advertisements. They attributed this finding to the fact that when watching the event in the company of others people tend to be more expressive and thus are more involved in the contextual program playing (Moorman et al., 2012).

The Super Bowl broadcast provides a perfect backdrop to test the influence of viewing company on how much attention is paid to the advertisements. In the United States, it is common for people to attend “watch parties,” very similar to the party Wansink and Cheney

(2005) created with graduate students to understand and study their food consumption. An excerpt taken from the NFL’s website states that Hallmark has found that “the Super Bowl is the top at-home US party event of the year, surpassing even New Year’s Eve” (Tomkovick et al., 2001, p. 99). Thus, the party environment provides a place to generate excitement and interest in this year’s Super Bowl commercials.

Many Super Bowl viewers do so in the company of others with the hopes of sharing feelings of enjoyment, entertainment and arousal that come from the Super Bowl broadcast. When viewing the broadcast with the presence of others, changing the channels during a commercial break becomes a less-likely occurrence as to the social norms of having to consult with other viewers (Van Meurs, 1998). Based on the cultural implications of the social party atmosphere surrounding the viewing of the Super Bowl broadcast, it is proposed that viewing company will have a positive effect on a viewer’s attention as stated in the following hypothesis:

H₂: Watching the Super Bowl broadcast in the company of others will have a positive effect on ad attention during the Super Bowl.

Ad Attention and Advertising Effectiveness

Ad attention is well theorized in the literature to lead to advertising effectiveness. Pieters, Warlop, and Wedel for example state that “attention to advertising is a necessary... condition for ad effectiveness (2002, p. 778). The process of attending allows consumers to form cognitive, affective, and behavioral responses to a stimulus (Olney, Holbrook, & Batra, 1991). Thus, in order for viewers to form cognitive, affective and (or) behavioral responses to advertisements it is important to gain and retain their attention during the broadcast.

Similar to prior research, advertising effectiveness is conceptualized here as to how well the company’s advertising is effective in getting the consumer to understand the brand better, improve its image relative to competitors and/or purchase the brand (Yuvaraju, Subramanyam, & Rao, 2014). The Super Bowl broadcast offers a novel context to consider

advertising effectiveness as most of the commercials aired are original advertisements, meaning the commercial was created specifically for the Super Bowl broadcast and the first time it will be aired is during the nationally-televised broadcast. Thus, viewers may not want to leave the room during the commercials or change the channel because they do not want to miss these new, original advertisements; this focus on the advertisements is referred to as ad attention. It is hypothesized that viewers of the Super Bowl broadcast who take an extra interest and pay special attention to the advertisements (i.e., high ad attention) will rate their favorite advertisement as being more effective, compared with viewers who have low ad attention. Therefore, Hypothesis 3 is put forth:

H₃: Ad attention has a positive effect on advertising effectiveness. Thus, people who pay more attention to the ads will rate their favorite advertisements as effective.

METHOD

Sample from Viewers of Super Bowl

Super Bowl XLIX featuring the New England Patriots versus the Seattle Seahawks aired on February 1, 2015. The New England Patriots reigned triumphant with a final score of 28–24. Online questionnaires were administered the day after the Super Bowl (February 2, 2015) to over 495 respondents. The survey was closed on February 4, 2015. Of these completed surveys, 483 were deemed useable. Respondents were screened on having watched at least of some of the Super Bowl broadcast which occurred on February 1, 2015. Three hundred forty-three (69.3%) respondents reported watching at least some of the game. The respondents were not forewarned of the study to ensure they watched the telecast of the Super Bowl unbiased without placing a focus on their viewing. The respondents consisted of undergraduate and graduate students at a university located in the Midwest. Four different professors invited students from their classes to participate in the research study in exchange for extra credit. The average age of the sample was 21.3 years old and 40.9 percent of the 343 respondents were female.

Measures

To assess the degree to which an individual is an NFL fan, respondents were asked the following question: “To what extent do you consider yourself a fan of the NFL” using a sliding 100 points scale (0 – not a fan at all to 100 – fanatic), this was adapted from Moorman et al. (2012). Similar to Jin et al., (2008) viewing company was directly assessed by asking respondents “How many people watched the Super Bowl game with you?” Next, respondents were asked about their situational ad attention with the 2015 Super Bowl. The measurement was chosen based on previous research (Jin et al., 2008), which shows that a self-reported three-item scale gauges the motivated state of attention instead of merely its antecedents or consequences. Respondents were asked the following three-items: “I did not want to leave the room during the commercial breaks because I did not want to miss the ads” (strongly disagree/strongly agree), and “I did not want to change the channel during the commercial break because I wanted to watch the ads” (strongly disagree/strongly agree), and “How much attention did you pay to the ads during the Super Bowl broadcast? (not very much/very much) ($\alpha = .88$).

Finally, to assess advertising effectiveness respondents were asked to recall their favorite, and only one, advertisement which was broadcasted during the Super Bowl and keep this advertisement in mind while answering the following questions: “the ad message is understandable”, “the advertisement is believable”, “the ad’s message is relevant to me”, “the benefits described in the ad are believable to me”, “after viewing the ad, I would consider purchasing the product”, and “this ad is much better/worse for products in this product category” (Yuvaraju et al., 2014) ($\alpha = .80$). The advertisement in which the largest number of respondents recalled as their favorite from the 2015 Super Bowl broadcast was the Budweiser “Lost Dog” commercial (89 respondents, 25.9%). The least favorite advertisement recalled was the Nationwide “Make Safe Happen” commercial (86 respondents, 25.1%). Table 2 contains the means standard deviations and the correlations among the study variables.

Analysis and Results

Hierarchical ordinary least squared (OLS) regression was utilized to analyze the data and test the study hypotheses (results are presented in Table 3). First, a regression was run (Model 1) assessing the effects being a NFL fan and viewing company has on ad attention. Gender and age were included as control variables. Next, Model 2 examines the effect the control variables, being an NFL fan, and viewing company has on advertising effectiveness. Finally, in Model 3, ad attention is included as an additional antecedent of advertising effectiveness.

In support of H₁, the effect of being a NFL fan on ad attention during the Super Bowl broadcast is positive and significant (b=.14, p < .05). Hypothesis 2 posits a positive relationship between viewing company and ad

attention. The analysis failed to support this prediction as the beta coefficient was insignificant (b .01, p > .05). In H₃, it was predicted that ad attention would lead to advertising effectiveness. Model 3 yielded a significant estimate (b=.15, p < .01) lending support to this prediction.

In sum, the results of the study support the notion that advertising attention has a significant and positive effect on advertising effectiveness. Further, the results highlight an important antecedent to advertising attention – NFL fandom. Similar to prior research (e.g., Moorman et al. 2012), these results suggest that being involved in the broadcast enhances emotional response and leads to heightened attention. This finding suggests that an emotional involvement in the broadcast is an integral component leading to advertising effectiveness. An important sustentative

TABLE 2:
Means, Standard Deviations, Cronbach’s Reliabilities and Correlations

	M	SD	CR	1	2	3	4
1. Ad attention	3.35	1.07	.88	1			
2. Advertising effectiveness	3.50	0.71	.82	.14**	1		
3. NFL fan	47.86	31.79	---	.11*	-.01	1	
4. Viewing company	6.27	7.50	---	-.01	.12*	.20**	1

Note. * p < .05. ** p < .01.

TABLE 3:
Hierarchical Multiple Regression Analyses Predicting Ad Attention and Advertising Effectiveness

	Dependent variables		
	Ad attention	Advertising effectiveness	
	Model 1	Model 2	Model 3
Intercept	.23 (.21)	3.63** (.14)	3.33** (.18)
Control variables			
Age	.01 (.02)	-.00 (.02)	-.00 (.02)
Gender	-.08 (.13)	-.10 (.09)	-.09 (.09)
Main effects			
H ₁ : NFL fan	.14* (.00)	-.00 (.00)	-.00 (.00)
H ₂ : Viewing company	-.00 (.01)	.01 (.01)	.01* (.01)
Mediating variable			
H ₃ : Ad attention			.10** (.04)
R ²	.02	.02	.04
F (Statistics)	1.40	1.38	2.46

Note. Unstandardized coefficients reported; numbers in parentheses are standard errors.

Sample size = 343.

* p < .05. ** p < .01.

question then is what can advertisers do to enhance viewers' emotional engagement? In the following section is an ancillary study which will help to further understand the difference between effective and ineffective Super Bowl advertisements in terms of garnering emotional responses.

Ancillary Study: Impact of Adjectives Describing Emotional Responses to Advertisements

Scholars have investigated emotional responses to advertising and specifically, Edell and Burke (1987) posited that after viewing advertisements that emotions arise and these emotions may be positive or negative at the same time, thus these emotions may influence how a viewer remembers the advertisement post-viewing. Edell and Burke (1987) used 69 emotions to describe how an ad made the respondent feel and thus other scholars have condensed this scale to 20 emotions (Yuvaraju et al., 2014).

Recalling different advertisements will produce different emotional responses. For example, when a viewer thinks of their single favorite advertisement from the broadcast, it is suggested that they will choose different adjectives than when they are asked to select adjectives for their recalled single least favorite advertisement. Thus, an additional hypothesis, Hypothesis 4 is as follows:

H₄: There are significant differences of the adjectives used to describe a favorite ad versus a least favorite ad during a televised event.

Emotional Response Adjectives Analysis and Results

Near the conclusion of the survey (as described above), respondents were asked to recall their favorite (and subsequently their least favorite) advertisement they saw during the Super Bowl broadcast. Twenty adjectives were provided to the respondents to select for how they would describe this ad to a friend (Yuvaraju et al., 2014). The twenty adjectives used by Yuvaraju and colleagues were adapted from Edell and Burke (1987) from their feelings toward ads scale (see Table 4). Respondents could select as few or as many of the twenty adjectives as they

saw fit. This procedure allows for a statistical distinction between the adjectives used by the samples to describe their "favorite" and "least favorite" advertisements.

Paired sample t-tests were conducted to examine Hypothesis 4 in order to compare the mean ratings for respondents' favorite Super Bowl advertisement versus their least favorite Super Bowl advertisement. Paired sample t-tests revealed there were significant mean differences for eighteen of the twenty adjectives used to describe their favorite and least favorite Super Bowl advertisements after viewing the 2015 broadcast. The top four adjectives used to describe a favorite advertisement include humorous ($M = .49$, $SD = .50$), memorable ($M = .48$, $SD = .50$), creative ($M = .42$, $SD = .50$), and attention-getting ($M = .49$, $SD = .34$). The top three adjectives used to describe a least favorite advertisement include boring ($M = .42$, $SD = .49$), irritating ($M = .40$, $SD = .49$), and offensive ($M = .16$, $SD = .37$). An overview of these results is provided in Table 3.

DISCUSSION

Utilizing a naturalistic field study from Super Bowl XLIX, factors affecting how much attention is paid to the advertisements during the Super Bowl and the effect this attention has on advertising effectiveness was examined. The findings indicate that being a NFL fan had a significant positive effect on advertising attention, which in turn, had a significant positive effect on advertising effectiveness. The analysis failed to support the proposed positive relationship between viewers' social surroundings and advertising attention (H_2). However, significant differences in terms of viewers' emotional responses to their favorite versus least favorite advertisement were uncovered.

This study makes an important theoretical contribution to the advertising interference literature. First, by studying the effects of interference under natural conditions, the present study provides evidence for other factors that heightens the attention paid and effectiveness of the advertisements. Involvement in the broadcast domain is an important factor leading to advertising attention. This finding suggests marketing

TABLE 4:
Paired Samples T-Test between Favorite Advertisement and Least Favorite Advertisement

Adjective	Favorite	Least	t
Active	16%	4%	5.67**
Attention-getting	49%	15%	10.81**
Boring	1%	42%	-15.17**
Cheerful	20%	3%	7.168**
Creative	42%	7%	11.83**
Emotional	27%	20%	2.12*
Energetic	15%	2%	5.86**
Genuine/Sincere	13%	3%	4.77**
Honest	8%	6%	1.21
Humorous	49%	2%	16.46**
Informative	10%	6%	1.76
Irritating	1%	40%	-14.81**
Memorable	48%	10%	12.07**
Natural	5%	1%	3.641**
Offensive	4%	16%	-5.29**
Pleasant	16%	1%	6.92**
Satisfying	15%	1%	6.413**
Strong	16%	9%	2.68**
Unique	30%	9%	7.54**
Warm-hearted	25%	3%	8.18**

Note. * $p < .05$. ** $p < .01$.

managers may be well served to target Super Bowl advertisements toward individuals who are highly interested in the event, as these individuals appear to pay more attention to the ads and are in turn more influenced by those advertisements. Conversely, when targeting non-NFL fans, advertisers must work hard to garner the attention of these individuals as their attention during a Super Bowl broadcast may be fleeting.

This research study was conducted in a neutral location meaning there were not many fans of the two teams, New England Patriots and Seattle Seahawks, whom played in the Super Bowl (c.f., Pavelchak et al., 1988). Two hundred forty-nine respondents (72.6% of the sample) indicated they do “have a favorite NFL football team” and twelve respondents stated the New England Patriots and four respondents reported the Seattle Seahawks as their preferred teams. Thus, the contribution to the literature highlights an enduring involvement with the sport of professional football itself rather than a preference for an individual team playing in the

championship game. This is a powerful finding as it illustrates the dramatic reach and interest in viewing the Super Bowl broadcast. Viewers who identify themselves as simply being a NFL fan do indeed pay more attention to the Super Bowl advertisements.

Finally, advertising practitioners can take away the emotional responses which were most commonly used to describe respondents “favorite” and “least favorite” advertisements. Advertisers should desire to make the commercials humorous, memorable, creative, and attention-getting. Advertisers should seek to ensure the advertisement is not boring, irritating, and offensive as these adjectives were used to describe a least favorite advertisement. Pre-testing Super Bowl advertisement might help in making sure that the company’s commercial is not rated as one of those three negative emotions. While the study’s results indicate that NFL fans have high levels of advertising attention, marketers must continually work to break through the clutter to garner the attention of non-fans. Ensuring

commercials elicit desirable emotional responses (e.g., humorous, memorable, creative, attention-getting) may be one way to break through the clutter to get the attention of viewers.

Limitations and Directions for Future Research

Despite the theoretical and practical implications that come from this study, limitations must be addressed. One important issue is how unique the Super Bowl really is as a television sporting event. It is a large event that attracts millions of viewers and this study focuses solely on individuals who watched the television broadcast on February 1, 2015. Other events such as the FIFA World Cup Final, The Masters Golf Tournament, and The Wimbledon Championships garner large viewing audiences and corporate spending on advertisements; thus, future research could examine the constructs in these other contexts.

Today's technologies to view online content have enhanced the reach of the Super Bowl advertisements. The commercials are viewed in other countries around the world and can be viewed outside of the initial television broadcast. Hence, future studies should be encouraged to move away from this single event study focus and broaden their inquiry into the other ways the Super Bowl commercials are viewed. Which advertisements garner the largest number of views on YouTube in the weeks following the Super Bowl? Are viewers, other than US viewers, attracted to different emotional responses from the advertisements? To find out whether the results from this study are generalizable, future research is needed.

There is a need to further understand the mediating role of ad attention. The measure in this study was self-reported as to how much they paid attention to the advertisements. A superior way to measure attention would be to use observational technology such as eye tracking software which would allow researchers to understand how much attention is *really* paid to the advertisements and how much attention is paid to interacting with the other viewers at the watch party. Being able to see when a respondent has their "eyes-on-the-screen" would enable researchers to a larger

extent understand which and what aspects of commercials truly capture a viewer's attention. Future research can also address additional antecedents to ad attention. The focus of this study used two of the most commonly cited factors leading to ad attention (degree of fandom and social viewing context) (Jin et al., 2008; Moorman et al., 2012). There are likely other important factors in this relationship. For example, the influence of alcohol, interruptions due to conversations about a particular advertisement, and spatial position for viewing the television broadcast are all likely influencers of advertising attention. Future research should consider these and other antecedents of advertising attention.

In spite of these limitations, this study advances understanding of the attention paid to advertisements during the Super Bowl and what emotions elicited from the advertisements cause them to be recalled as a favorite or least favorite advertisement. Considering the enormous investment companies make in Super Bowl advertisements, future researchers should expand on the findings in this paper and continue to advance this line of research.

REFERENCES

- Danaher, P. J., Bonfrer, A., & Dhar, S. (2008). The effect of competitive advertising interference on sales of package goods. *Journal of Marketing Research*, 45(2), 211-225.
- Denham, B. E. (2004). Toward an explication of media enjoyment: The synergy of social norms, viewing situations, and program content. *Communication Theory*, 14(4), 370-387.
- Edell, J. A., & Burke, M. C. (1987). The power of feelings in understanding advertising effects. *Journal of Consumer Research*, 14(3), 421-433.
- Funk, D. C., & James, J. (2001). The psychological continuum model: A conceptual framework for understanding an individual's psychological connection to sport. *Sport Management Review*, 4(2), 119-150.

- Fehle, F., Tsyplakov, S., & Zdorovtsov, V. (2005). Can companies influence investor behaviour through advertising? Super bowl commercials and stock returns. *European Financial Management*, 11(5), 625-647.
- Ferrario, B. (2015, January 28). Thinking Beyond the \$4.5 Million Super Bowl Hail Mary. (n.d.). Retrieved February 25, 2015, from <http://adage.com/article/drawbridge/thinking-4-5-million-super-bowl-hail-mary/296753/>
- Jin, H. S. (2003). Compounding consumer interest. Effects of advertising campaign publicity on the ability to recall subsequent advertisements. *Journal of Advertising*, 32(4), 29-41.
- Jin, H. S., Suh, J., & Donovan, D. T. (2008). Salient effects of publicity on advertised brand recall and recognition: The list-strength paradigm. *Journal of Advertising*, 37(1), 45-57.
- Jin, H. S., Zhao, X., & An, S. (2006). Examining effects of advertising campaign publicity in a field study. *Journal of Advertising Research*, 46(June), 171-182.
- Kalb, I. (2013, February 4). Super Bowl Ads Really Are A Terrible Investment For Brands. Retrieved February 18, 2015, from <http://www.businessinsider.com/if-you-think-super-bowl-ads-are-worth-the-money-think-again-2013-2>
- Kent, R. J., & Allen, C. T. (1994). Competitive interference effects in consumer memory for advertising: The role of familiarity. *Journal of Marketing*, 58(July), 97-105.
- Kim, J., Freling, T. H., & Eastman, J. K. (2013). Do advertising efficiency and brand reputation matter: Evidence from Super Bowl advertising. *Marketing Management Journal*, 90(Spring), 90-101.
- Moorman, M., Willemsen, L. M., Neijens, P. C., & Smit, E. G. (2012). Program-involvement effects on commercial attention and recall of successive and embedded advertising. *Journal of Advertising*, 41(2), 25-38.
- Newell, S. J., & Henderson, K. V. (1998). Super Bowl advertising: Field testing the importance of advertisement frequency, length and placement on recall. *Journal of Marketing Communications*, 4(4), 237-248.
- Newell, S. J., Henderson, K. V., & Wu, B. T. (2001). The effects of pleasure and arousal on recall of advertisements during the Super Bowl. *Psychology & Marketing*, 18(11), 1135-1153.
- Okazaki, S., Taylor, C. R., & Zou, S. (2006). Advertising standardization's positive impact on the bottom line: A model of when and how standardization improves financial and strategic performance. *Journal of Advertising*, 35(3), 17-33.
- Olney, T. J., Holbrook, M. B., & Batra, R. (1991). Consumer responses to advertising: The effects of ad content, emotions, and attitude toward the ad on viewing time. *Journal of Consumer Research*, 17(4), 440-453.
- Pavelchak, M. A., Antil, J. H., & Munch, J. M. (1988). The Super Bowl: An investigation into the relationship among program context, emotional experience, and ad recall. *Journal of Consumer Research*, 15(3), 360-367.
- Pieters, R., Warlop, L., & Wedel, M. (2002). Breaking through the clutter: Benefits of advertisement originality and familiarity for brand attention and memory. *Management Science*, 48(6), 765-781.
- Tomkovich, C., Yelkur, R., & Christians, L. (2001). The USA's biggest marketing event keeps getting bigger: An in-depth look at Super Bowl advertising in the 1990s. *Journal of Marketing Communications*, 7(2), 89-108.
- Van Meurs, L. (1998). Zapp! A study of switching behavior during commercial breaks. *Journal of Advertising Research*, 38(1), 43-53.
- Wansink, B., & Cheney, M. M. (2005). Super bowls: serving bowl size and food consumption. *Jama*, 293(14), 1723-1728.
- Yelkur, R., Tomkovich, C., & Traczyk, P. (2004). Super Bowl advertising effectiveness: Hollywood finds the games golden. *Journal of Advertising Research*, 44(01), 143-159.
- Yuvaraju, D., Subramanyam, D., & Rao, S.D. (2014). Advertising strategy of Coca-Cola at Coca-Cola Beverages Pvt.Ltd. *IOSR Journal of Business and Management*, 16(6), 122-131.
- Zanjani, S. H., Diamond, W. D., & Chan, K. (2011). Does ad-context congruity help surfers and information seekers remember ads in cluttered e-magazines? *Journal of Advertising*, 40(4), 67-84.

SEGMENTING SPORTING EVENT AUDIENCES FOR INCREASED SPONSORSHIP EFFECTIVENESS

DENNIS A. PITTA, University of Baltimore

VELITCHKA D. KALTCHEVA, Loyola Marymount University

ANTHONY D. PATINO, University of San Francisco

RICHARD C. LEVENTHAL, Ashford University

In this research undertaken at the 2013 Baltimore Grand Prix, a representative sample of 395 race spectators was selected to complete a questionnaire assessing their sponsorship awareness (unaided recall of the event's sponsors) and their intentions to purchase sponsors' brands. A finite mixture model identified five spectator segments: Enthusiasts, Moderates, Selectives, Non-Enactors and Apathetics. Correspondence analysis revealed demographic and psychographic differences among the segments. Four of the five segments were identified as potentially promising for sponsors, and specific strategies for targeting these four segments are discussed.

INTRODUCTION

Comcast and the NFL, Anheuser Busch and MLB, Reebok and NHL—these formidable relationships symbolize the power of sponsorship in today's sports marketplace (IEG, 2015). Sponsorship is defined as a cash and/or in-kind fee charged by properties—such as sports, entertainment or non-profit events or organizations—in return for access to the commercial potential of the property (IEG, 2000). Sponsorship-linked marketing involves “the orchestration and implementation of marketing activities for the purpose of building and communicating an association to a sponsorship” (Cornwell, 1995, p. 15). As media tastes have evolved, businesses have added events to their marketing campaigns in order to attract consumers' attention and boost their brands (Gwinner & Eaton, 1999). Sporting events represent opportunities for brands to reach target consumers engaged in leisure activities that are entertaining and exciting (Heitsmith, 1994). The level of consumer engagement distinguishes sporting event viewers from viewers of less engaging content. Reflecting its increased economic value, sports sponsorship has grown dramatically over time (Cornwell, 2008). According to the IEG 2015 *Sponsorship Spending Report*, sports sponsorship in 2015 is anticipated to grow by 4.4% over 2014. In fact, sports sponsorship

spending in North America is projected to reach \$15 billion in 2015 (IEG, 2015).

One of the most frequent criticisms of the sponsorship industry has been the lack of attention to measuring sponsorship effects in relation to the investments made (Olson, 2010). “Traditionally, companies investing in sponsorship relationships as part of the corporate communication mix learnt from experience, over time, how to manage their sponsorship properties. But, as the size of sponsorship deals has grown and their strategic importance for marketing communications increased, it has become more urgent for marketers to deliver value from these investments” (Verity, 2002, p. 161). Despite the limited ability to measure sponsorship effects (Crompton, 2004), various proven marketing techniques could be implemented for improving sponsorship effectiveness. One such strategy would be to segment audiences at sporting events and pinpoint consumer segments that would yield the greatest return for sponsors (Dwyer & Yongjae, 2011). Zeithaml, Rust, and Lemon (2001) suggest that sponsors should evaluate each customer on his or her lifetime customer value and court the customers with high scores, ignoring those with low scores. Sponsors that focus on lifetime customer value can use it as a means for increasing profitability, success and efficiency (Lemon & Mark, 2006).

Segmentation of sporting event audiences has been based primarily on the spectators'

experiences at the event (Bouchet, Bodet, Bernache-Assollant, & Kada, 2011; Gi-Yong & Hardin, 2008; Pons, Mourali & Nyeck, 2006; Prayag & Grivel, 2014). However, in order to generate insights that would be helpful to sponsors in improving sponsorship effectiveness, audience segmentation needs to be based on critical outcome variables for sponsoring companies. Two such outcome variables identified by sponsorship research are: sponsorship awareness, defined as the audience's awareness of the sponsorship relationship (Verity, 2002), and intention to purchase sponsors' brands (for a review see Olson, 2010). Our exploratory research has two objectives: (1) We segment the audience at a sporting event using sponsorship awareness and purchase intentions as the bases for segmentation, and (2) We identify audience segments that offer the highest economic potential for sponsors.

MARKET SEGMENTATION AND SPORTS EVENT AUDIENCES

Recognizing that all customers are not alike is the underpinning of market segmentation. Market segmentation strategies are defined as management strategies which use information about market segments in designing products and creating advertising that appeal to those segments (Dickson & Ginter, 1987). The use of market segmentation has often been the subject of investigation in various areas of marketing, including advertising (Dubow, 1992; Stanley, Moschis, & Danko, 1987), product development (Kimiloglu, Nasir, & Nasir, 2010), and consumer behavior (Hauser, Orr & Daugherty, 2011). Segmentation research has focused on studying the bases for segmenting consumers such as demographic, psychographic, usage and benefits-sought variables, and it has affirmed that businesses should not serve every customer segment (Dickson & Ginter, 1987; Kimiloglu et al., 2010).

Prior research of sporting event spectators has employed experiential bases for segmentation such as motivation and social interaction (Pons, Mourali & Nyeck, 2006), emotional attachment and motivation (Hunt, Bristol & Bashaw, 1999; Koo & Hardin, 2008), motivation, satisfaction and behavioral intentions (Prayag & Grivel,

2014), and the consumption experience (Bouchet et al., 2011). For example, Koo and Hardin (2008) developed a segmentation scheme based on emotional attachment and motivation. They defined emotional attachment as the level of engagement a fan may have with the sport, the team, or the players. Differences in emotional attachment were used to create two segments: spectators and fans. Nine motivations were identified based on psychological and socio-psychological needs. For example, one motivation was vicarious achievement, defined as being part of the team; another motivation was escapism, representing the use of the sporting event as a way to forget personal issues. Prayag and Grivel (2014) identified four clusters of sporting event participants based on their motivations to participate in the event: Indifferent, Enthusiast, Socializer and Competitive. The four segments were further profiled by socio-demographics, overall satisfaction with the sporting event, and intentions to revisit and recommend the event.

Recently marketers have been placing more emphasis on segmenting customers based on their value to the firm (Mark et al., 2013; Moe & Fader, 2009; Zeithaml et al., 2001). To our knowledge, no prior research has segmented sporting event audiences based on variables that create value for sponsoring companies. In this research, we employ sponsorship outcome variables—(1) sponsorship awareness and (2) intentions to purchase sponsors' brands—to segment the audience at a motor sporting event. We selected these two variables as bases for segmentation because of their importance for sponsorship effectiveness (for a review see Olson, 2010). Increasing purchase intentions and encouraging purchase loyalty toward sponsors' brands are principal objectives of sponsorship activities and the focal criterion in assessing sponsorship effectiveness (Alexandris, Tsaousi, & James, 2007; Close, Finney, Lacey, & Sneath, 2006; Martensen, Grønholt, Bendtsen, & Juul, 2007; Verity, 2002).

Sponsorship awareness is defined as the audience knowing of the sponsorship relationship (Verity, 2002). Typically, sponsorship awareness has been measured using unaided sponsor recall or sponsor recognition (Tripodi, Hirons, Bednall, &

Sutherland, 2003). Greater sponsorship awareness has been found to have a positive impact on sponsor image (Grohs, Wagner, & Vsetecka, 2004) and purchase intentions (Irwin, Lachowetz, Comwell, & Clark, 2003; Verity, 2002). Pope and Voges (1999) found that consumers who already purchase and use a brand are more likely to be aware of the brand's sponsorship relationships. In the next section, we describe a segmentation study in which we use a finite mixture model to segment the 2013 Baltimore Grand Prix audience.

STUDY

Sample and Measures

Our sample includes 395 spectators at the 2013 Baltimore Grand Prix which was held between August 29 and September 1, 2013 in Baltimore, Maryland. Sample demographics are displayed in Table 1. The sample is representative of Grand Prix audiences in the United States. (Van Der Lugt, 2015).

Five researchers collected data on each of the three days the Grand Prix races were held (Friday, Saturday and Sunday). Each researcher was randomly assigned to a different area of the race (the stands, food court, children's play section, etc.). Thus, data was collected at five different areas at once, and throughout the duration of the study a wide range of different areas was used. The researchers were alternated among areas several times per day. Special care was taken that approximately the same number of surveys was collected from each area. Grand Prix spectators were approached and asked if they would be willing to participate in a study of the Grand Prix. Those who responded in the affirmative were handed a paper-and-pencil survey. The researcher waited some distance away while the respondent completed the survey, so as not to interfere with the respondent.

Sponsor awareness was measured by asking respondents to name the presenting sponsor and then list other sponsors they can recall. On average, respondents recalled 2.46 sponsors, ranging from a minimum of 0 to a maximum of 8 (standard deviation = 2.02). The presenting sponsor was correctly identified by 186 respondents (47%). Purchase intentions were

evaluated by having respondents rate their agreement with the statement, "I am more likely to purchase brands from Grand Prix sponsors because of their association," on a four-point Likert scale anchored at 1 - "Strongly disagree" and 4 - "Strongly agree" (mean = 3.04 / 4.00; standard deviation = .80). Additionally, respondents indicated how frequently they attend motor sports events ("First time," "0-1 event per year," and "2 or more events per year") and completed demographic questions (see Table 1).

TABLE 1:
Sample Demographics

Gender	
Male	228 (58%)
Female	145 (37%)
Prefer not to answer	22 (6%)
Age	
18-24	40 (10%)
25-34	98 (25%)
35-49	105 (27%)
50-64	111 (28%)
65+	22 (6%)
Prefer not to answer	19 (5%)
Marital Status	
Married	201 (51%)
Partnered	16 (4%)
Separated/Divorced	15 (4%)
Single	142 (36%)
Widowed	4 (1%)
Prefer not to answer	17 (4%)
Ethnicity	
Asian	6 (2%)
African American/Black	35 (9%)
Caucasian/White	311 (79%)
Hispanic/Latino(a)	12 (3%)
Other	10 (3%)
Prefer not to answer	21 (5%)

TABLE 1:
Sample Demographics (Cont'd)

Education	
Some High School	10 (3%)
High School	24 (6%)
Some College / Technical / Vocational	76 (19%)
Four-Year College	106 (27%)
Post Graduate	89 (23%)
Prefer not to answer	90 (23%)
Annual Household Income	
Less than \$25,000	18 (5%)
\$25,000-\$49,999	42 (11%)
\$50,000-\$74,999	74 (19%)
\$75,000-\$99,999	51 (13%)
\$100,000-\$124,999	50 (13%)
\$125,000+	88 (22%)
Prefer not to answer	72 (18%)
Frequency of attending motor sports events	
First time	107 (27%)
0-1 events per year	101 (26%)
2 or more events per year	156 (39%)
Prefer not to answer	31 (8%)

Note. Total percentages may differ from 100% due to rounding error.

Results

First, we identified classes within the Grand Prix audience based on the number of sponsors recalled (mean = 2.46; standard deviation = 2.02) and intention to purchase sponsors' brands (mean = 3.04 / 4.00; standard deviation = .80). Hierarchical agglomerative clustering procedures and the K-means algorithm assume clusters having equal spherical covariance matrices (that is, the same within-cluster variances in all directions and across clusters) and identical sampling probabilities, whereas finite mixture models relax these assumptions (Malthouse, 2013). A finite mixture model was evaluated in XLSTAT, Version 2015 1.01 because there was no reason to expect that any classes would be identical in size and shape. Further, finite mixture models account for correlations among the classification variables. In our sample, the correlation between the two

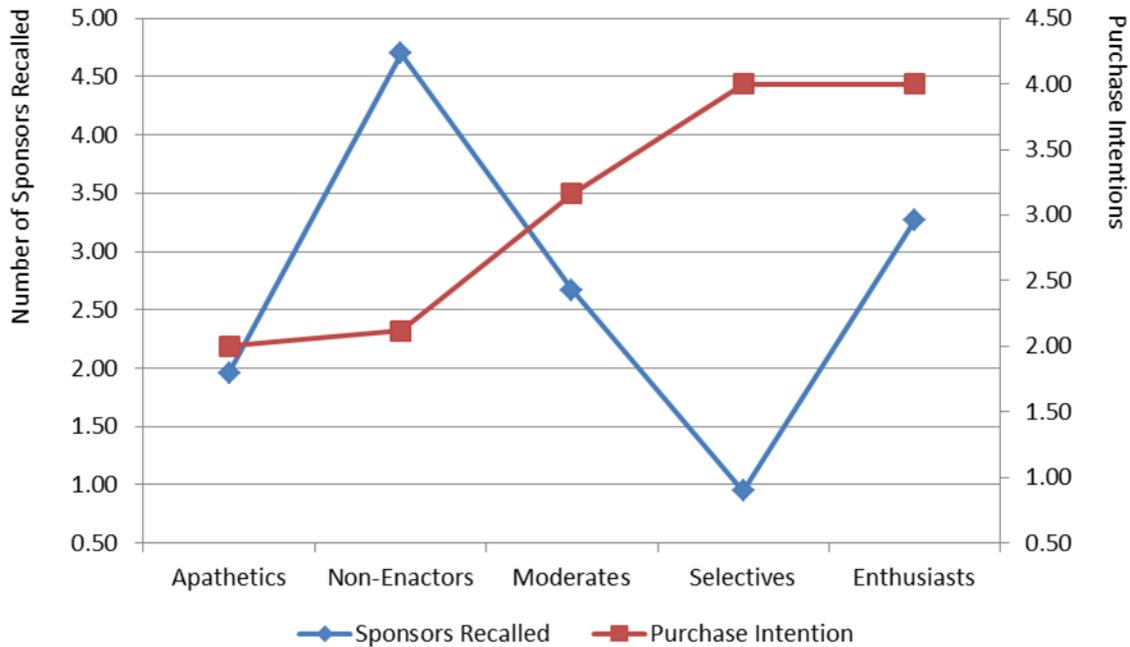
classification variables (the number of sponsors recalled and purchase intentions) was .14.

The best mixture model was found to be a five-class VEV (variable volume, equal shape, variable orientation) model, suggesting that the classes are similar in shape (equal shape) but vary in size (variable volume) and the correlation between the classification variables (variable orientation) (Malthouse, 2013). Table 2 shows what percentage of the audience is accounted for by each class as well as the five class profiles along purchase intentions and the number of sponsors recalled (see also Figure 1). The classes differ in size: the largest class—the Moderates—includes 48% of the Grand Prix spectators, followed by the Apathetics (21%), the Selectives (15%), the Enthusiasts (8%) and the Non-Enactors (7%).

The shape of the classes is determined by the variances of the classification variables. If the two classification variables have similar variances, the class would have an approximately spherical shape. The class would be represented by an elliptical shape if one of the classification variables has a higher variance than the other (Malthouse, 2013). The purchase intentions variable has a higher variance than the number of sponsors recalled in each of the five classes (Table 2), thus all classes have a similar elliptical shape. Purchase intentions and the number of sponsors recalled are highly correlated in the Moderates and Non-Enactors classes, and uncorrelated in the other three classes (Table 2). This correlation implies that spectators in the former two classes (Moderates and Non-Enactors) who recall more sponsors are also more likely to purchase sponsors' brands.

The Apathetics class accounts for 21% of the Grand Prix audience. They recall few sponsors ($M = 1.96$) and are unlikely to purchase sponsors' brands ($M = 2.00$). Similar to the Apathetics, the Non-Enactors (7%) are unlikely to purchase sponsors' brands ($M = 2.12$); however, they recall the greatest number of sponsors among all classes ($M = 4.70$). Namely, this segment embraces the commercial facet of motor sports (high sponsor recall rate) but does not act upon this sponsor awareness. The Moderates are the largest class (48%). Their sponsor recall ($M = 2.67$) and purchase

**FIGURE 1:
Class Profiles**



**TABLE 2:
Class Profiles**

Class	Proportion	Purchase Intentions	Number of Sponsors Recalled	Correlation
Apathetics	0.21	2.00 (1.04)	1.96 (0.04)	.00
Non-Enactors	0.07	2.12 (6.72)	4.70 (1.95)	.99
Moderates	0.48	3.16 (4.75)	2.67 (0.60)	.94
Selectives	0.15	4.00 (0.52)	0.95 (0.02)	.00
Enthusiasts	0.08	4.00 (0.32)	3.27 (0.01)	.00

Notes. The numbers in parentheses are the standard deviations. Correlation is the correlation between the classification variables (purchase intentions and number of sponsors recalled). The sum of the class proportions differs from 1.00 because of rounding error.

intentions ($M = 3.16$) are closest to the sample averages. The Moderates and the Non-Enactors are similar in that both classes are characterized by a positive correlation between the two classification variables, suggesting that the more sponsors these Grand Prix spectators recall the more likely they are to purchase sponsors' brands. The Selectives (15%) have the lowest recall rate, on average recalling less than one sponsor ($M = .95$); however, this segment exhibits a high level of purchase intentions for the few recalled brands ($M = 4.00$). The Enthusiasts (8%) are the opposite of the Apathetics, displaying both high sponsor

recall ($M = 3.27$) and high purchase intentions for sponsors' brands ($M = 4.00$).

After identifying segments (classes) within the Grand Prix audience, we conducted correspondence analysis in order to examine possible differences among the segments regarding gender, frequency of attending motor sports events, and ability to correctly name the presenting sponsor of the 2013 Baltimore Grand Prix. Correspondence analysis is an increasingly popular interdependence technique for analyzing contingency tables and identifying relationships among objects and/or

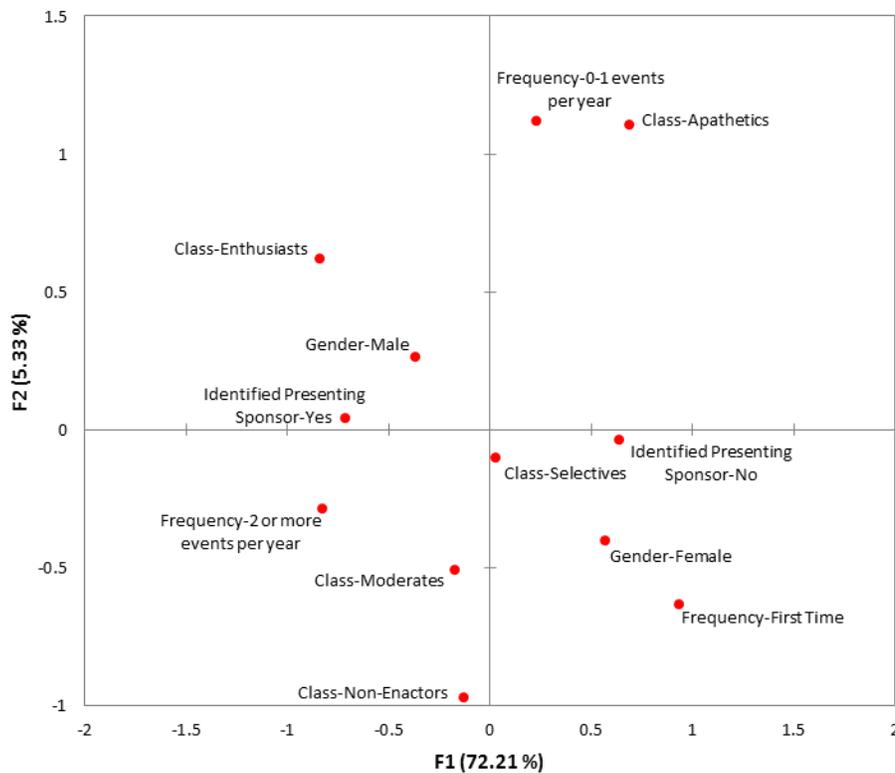
variables, which are simultaneously plotted on a map based on their association (Hair, Black, Babin, & Anderson, 2010). The results of the correspondence analysis are displayed in Figure 2.

The Enthusiasts are predominantly males who attend motor sports events multiple times a year. They are also most likely to correctly identify the presenting sponsor. The Moderates and the Non-Enactors are more likely to be female. These two segments include fans that attend motor sporting events multiple times a year as well as first-time motor sports attendees. On average, the Apathetics attend one or fewer motor sporting events per year, while the Selectives are likely to attend multiple events annually.

MANAGERIAL IMPLICATIONS

This research contributes to the literature on segmenting sporting event audiences by employing outcome variables (sponsorship awareness and purchase intentions) as bases for segmentation, thus identifying segments that offer high economic potential for sponsors. Our segmentation analysis identifies the Enthusiasts and the Selectives, who together account for 23% of the Grand Prix audience, as the two most valuable segments for sponsors. These two segments report the highest purchase intentions as measured by their agreement with the statement “I am more likely to purchase brands from Grand Prix sponsors because of their association.” Sponsors can target the Enthusiasts and the Selectives by appealing to

**FIGURE 2:
Correspondence Analysis**



fans who attend multiple motor sporting events per year. Effective strategies for targeting these regular motor-sports spectators may incorporate loyalty programs providing discounts and other incentives to purchase sponsors' brands based on the number of events attended. These loyalty programs should offer not only monetary promotions but also incentives that engage these fans by recognizing and affirming their special status. Special arrangements granting an opportunity to meet pit crews and driving teams at sponsors' venues (retail stores, restaurants, etc.) would probably be very effective in cementing the loyalty of these two segments and perhaps persuading them to make more purchases. Another technique for increasing traffic at sponsors' venues would be to offer event T-shirts and/or other event merchandise at sponsors' venues, thus enticing Grand Prix fans to frequent those venues.

The Enthusiasts and the Selectives are similar in that both groups report a high level of purchase intentions. However, unlike the Enthusiasts, who embrace sponsors' brands both cognitively (the highest sponsor recall rate) and behaviorally (high purchase intentions), the Selectives recall few sponsors' brands. Perhaps, if these spectators became aware of more sponsors' brands, they would be likely to purchase more brands. Thus, a specific objective in targeting the Selectives (which would not apply to the Enthusiasts) would be to make them aware of more sponsors' brands. Informational messages that introduce less recalled sponsors, or contests encouraging participants to use these sponsors' products, would serve to introduce the Selectives to more sponsors. For example, contests may require participants to make videos involving sponsors' brands or suggesting new uses and use occasions for sponsors' products. Another vehicle would be encouraging sponsors to create exhibits at the event that increase spectators' engagement with the sponsor through trial and other multisensory opportunities (Spence & Gallace, 2011).

Note that the Enthusiasts and the Selectives collectively account for 23% share of the target market. Their share mirrors traditional marketing principles regarding segment attractiveness and the Pareto Principle. The Pareto Principle, which has been used in

various aspects of marketing, states that a small subset of customers (20%) is responsible for 80% of the sales (Brynjolfsson, Hu & Simester, 2011). However, the literature warns against restricting promotional efforts only to the top 20% of customers (Sanders, 1987). Such strategy would likely be suboptimal as related to motor sports audiences, as suggested by our findings.

We identify two other promising segments—the Moderates (48%) and (to a lesser extent) the Non-Enactors (7%)—which offer a significant potential for growth. Both these segments involve predominantly women. Half of these women attend motor sporting events multiple times a year and the rest are first-time motor sports attendees. What makes the Moderates and the Non-Enactors especially important for sponsors and event organizers is that the two segments account for more than 50% of the audience and are characterized by a high correlation between the number of sponsors recalled and the intentions to purchase sponsors' brands. This high correlation implies that Grand Prix sponsors and organizers may be successful in strengthening purchase intentions for sponsors' brands by making spectators more aware of the events' sponsors. A potentially effective strategy for targeting these two segments would be developing communications and promotions with the objective of making these female fans more knowledgeable of the events' sponsors. Informational strategies similar to those proposed for the Selectives can be implemented here as well.

Separate communication strategies should be designed for first-time female motor sports attendees, and for female fans who attend multiple events per year. What kind of communications would welcome spectators with comparatively little experience with motor sports? One solution could be 'educational.' These communications should be crafted on a level that introduces newcomers to the nature and scope of motor sports and sponsors' brands, providing essential background information that otherwise could be gained by lengthy experience with the sport. An important component of such communications would be a matter-of-fact delivery, free of jargon and 'inside information.' These messages may feature female spokespeople, thus making

newcomers more comfortable with the self-perception of being motor sports fans, piquing their interest and gaining repeat attendance. Special focus needs to be placed on acquainting these new fans with as many sponsors' brands as possible, emphasizing various uses and benefits of the brands for the consumer. The use of exhibits and other multisensory options may serve as pathways for developing stronger engagement (Spence & Gallace, 2011).

A different communication strategy should be developed to target female fans who attend multiple motor sporting events per year. Contests that involve tasks and activities requiring more in-depth knowledge and experience with motor sports could be especially effective. Such contests should offer exciting opportunities for these fans to test their expertise and commitment to motor sports as well as exposing them to as many sponsors' brands as possible. It is important that participants' expertise and commitment are challenged as well as reaffirmed, at the same time increasing their interest and purchase intentions for sponsors' brands.

Both the Moderates and the Non-Enactors seem to embrace the commercial facets of motor sporting events, as evidenced by their high rate of sponsor recall, but the Non-Enactors are less likely to purchase sponsors' brands. Further research is needed to identify the reasons why Non-Enactors are less likely to make purchases. For example, if limited disposable income is the reason, then sales promotions offering various pricing bundles or other deals are indicated as an effective tool for yielding greater sales from the Non-Enactors. The Apathetics attend motor-sports events less frequently than other segments, and exhibit relatively low levels of purchase intentions and number of recalled sponsors. For these reasons, the Apathetics offer less commercial opportunity, making them less attractive for sponsors and event organizers.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

A limitation of this research is that our segmentation is based only on Baltimore Grand Prix audiences, and the five segments identified by our study may not extend to audiences of

other sporting events. Future segmentation analyses need to be performed for a wide variety of different sporting events and different engagement levels. Varying levels of spectator engagement with a sporting event might impact the segmentation of the event audience; nonetheless, our research did not measure spectators' engagement directly. We evaluated it indirectly, using the number of times respondents attended a motor-sports event per year as a proxy for engagement. Future research may assess engagement directly, potentially yielding a more accurate segmentation scheme of sporting event audiences.

Another limitation of this study is that we did not measure participants' attitudes toward the 2013 Baltimore Grand Prix sponsors prior to their completing the survey. Such data would have allowed us to better understand participants' responses to the sponsor recall and purchase intentions measures. In addition to collecting prior attitude data, future studies could follow up with survey respondents several weeks after the event, and evaluate their ability to properly identify sponsors and their purchase intentions at that time, thus providing valuable insights into the effects of sponsorship over time. Also, it would be important to compare the sponsorship awareness and purchase intentions of the spectators at the event to those who view the event on television. Does sponsorship have the same effect, or even a more pronounced effect, on television where viewers can also see commercials from the sponsors?

REFERENCES

- Alexandris, K., Tsaousi, E. & James, J. (2007). Predicting sponsorship outcomes from attitudinal constructs: the case of a professional basketball event. *Sports Marketing Quarterly*, 16, 130-139.
- Bouchet P., Bodet G., Bernache-Assollant I. & Kada F. (2011). Segmenting sport spectators: Construction and preliminary validation of the Sporting Event Experience Search (SEES) scale. *Sport Management Review*, 14 (1), 42-53.

- Brynjolfsson, E., Hu, Y. & Simester, D. (2011). Goodbye Pareto Principle, Hello Long Tail: The effect of search costs on the concentration of product sales. *Management Science*, 57(8), 1373-1386.
- Close, A.G., Finney, R., Lacey, R. & Sneath, J. (2006). Engaging the consumer through event marketing: linking attendees with the sponsor, community, and brand. *Journal of Advertising Research*, 44(4), 420-33.
- Cornwell T. B. (1995). Sponsorship-linked marketing development. *Sport Marketing Quarterly*, 4 (4), 13-24.
- Cornwell T. B. (2008). State of the art and science in sponsorship-linked marketing. *Journal of Advertising*, 37(3), 41-55.
- Crompton, J.L. (2004). Conceptualization and alternative operationalizations of the measurement of sponsorship effectiveness in sport. *Leisure Studies*, 23(3), 267-81.
- Dickson P.R. & Ginter, J.L. (1987). Market segmentation, product differentiation, and marketing strategy. *Journal of Marketing*, 51 (2), 1-10.
- Dubow, J.S. (1992). Occasion-based vs user-based benefit segmentation: a case study. *Journal of Advertising Research*, 32(2), 11-18.
- Dwyer, B., & Yongjae, K. (2011). For love or money: Developing and validating a motivational scale for fantasy football participation. *Journal of Sport Management*, 25(1), 70-83.
- Gi-Yong, K., & Hardin, R. (2008). Difference in interrelationship between spectators' motives and behavioral intentions based on emotional attachment. *Sport Marketing Quarterly*, 17(1), 30-43.
- Grohs, R., Wagner, U., & Vsetecka, S. (2004). Assessing the effectiveness of sport sponsorships--An empirical examination. *Schmalenbach Business Review (SBR)*, 56(2), 119-138
- Gwinner K. P. & Eaton J. (1999). Building brand image through event sponsorship: The role of image transfer. *Journal of Advertising*, 28(4), 47-57.
- Hair J. F. Jr, Black W.C., Babin B.J. & Anderson R.E. (2010). *Multivariate Data Analysis*, 7th ed., Prentice Hall, Upper Saddle River, NJ.
- Hauser, W. J., Orr, L., & Daugherty, T. (2011). Customer response models: What data predicts best, hard or soft?" *Marketing Management Journal*, 21(1), 1-15.
- Heitsmith, G. (1994). Event Promotions: get them by their hearts and minds. *Promo: The International Magazine for Promotion Marketing*, March, 31-2 and 101-2.
- Hunt, K. A., Bristol, T. & Bashaw, R. E. (1999). A conceptual approach to classifying sports fans. *Journal of Services Marketing*, 13 (6/7), 439-452.
- IEG (2000). Year one of IRL title builds traffic, awareness for Northern Light. *IEG Sponsorship Report*, 19 (23), 1-3.
- IEG. (2015). Sponsorship spending report: Where the dollars are going and trends for 2015. accessed on February 27, 2015. [<http://www.sponsorship.com/Resources/Sponsorship-Spending-Report--Where-The-Dollars-Are.aspx>]
- Irwin, R. L., Lachowetz, T., Comwell, T. B., & Clark, J. S. (2003). Cause-related sport sponsorship: An assessment of spectator beliefs, attitudes, and behavioral intentions. *Sport Marketing Quarterly*, 12(3), 131-139.
- Kimiloglu H., Nasir V.A. & Nasir, S. (2010). Discovering behavioral segments in the mobile phone market. *Journal of Consumer Marketing*, 27(5), 401-413.
- Koo, G-Y., & Hardin, R. (2008). Difference in interrelationship between spectator's motives and behavioral intentions based on emotional attachment. *Sport Marketing Quarterly*, 17, 30-43.
- Lemon, K. N. & Mark, T. (2006). Customer lifetime value as the basis of customer segmentation: Issues and challenges. *Journal of Relationship Marketing*, 5(2), 55-69.
- Malthouse E. C. (2013). *Segmentation and Lifetime Value Models Using SAS*, SAS Institute: July.
- Mark T., Lemon K. N., Vandenbosch M., Bulla J., & Maruotti, A. (2013). Capturing the evolution of customer-firm relationships: How customers become more (or less) valuable over time. *Journal of Retailing*, 89 (3), 231-245.
- Martensen, A., Grønholt, L., Bendtsen, L. & Juul, M. (2007). Application of a model for the effectiveness of event marketing. *Journal of Advertising Research*, 47(3), 283-301.

- Moe W. W. & Fader P. S. (2009). The role of price tiers in advance purchasing of event tickets. *Journal of Service Research*, 12(1), 73-86.
- Olson E. L. (2010). Does sponsorship work in the same way in different sponsorship contexts? *European Journal of Marketing*, 44 (1/2), 180-199.
- Pons F., Mourali M. & Nyeck S. (2006). Consumer orientation toward sporting events: Scale development and validation. *Journal of Service Research*, 8(3), 276-287.
- Pope, N.K.L. & Voges, K.E. (1999). Sponsorship and image: a replication and extension. *Journal of Marketing Communications*, 5, 17-28.
- Prayag, G., & Grivel, E. (2014). Motivation, satisfaction, and behavioral intentions: Segmenting youth participants at the Interamnia World Cup 2012. *Sport Marketing Quarterly*, 23(3), 148-160.
- Sanders, R. (1987). The Pareto Principle: Its use and abuse. *Journal of Services Marketing*, 1(2), 37-40.
- Spence, C., & Gallace, A. (2011). Multisensory design: Reaching out to touch the consumer. *Psychology & Marketing*, 28(3), 267-307.
- Stanley T.T., Moschis G.P. & Danko W.D. (1987). Financial service segments – the seven faces of the affluent market. *Journal of Advertising Research*, 27(4), 52-67.
- Tripodi J. A., Hirons M., Bednall D. & Sutherland M. (2003). Cognitive evaluation: prompts used to measure sponsorship awareness. *International Journal of Market Research*, 45(4), 435-455.
- Van Der Lugt, C. (2015). Retrieved July 30, 2015, from <http://www.hhcc.com/thinking/can-fl-finally-break-in-to-the-united-states>
- Verity, J. (2002). Maximizing the marketing potential of sponsorship for global brands. *European Business Journal*, 14(4), 161-73.
- Zeithaml V.A., Rust R.T. & Lemon K.N. (2001). The customer pyramid: creating and serving profitable customers. *California Management Review*, 43(4), 118-142.