An Associative Learning Account of Branding Effects of Sport Sponsorship

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Sponsorship remains a viable line of scholarly inquiry

1. Economic significance of the industry
   - $45.2 billion worldwide (IEG, 2009).
   - Growth rate outstripped that of advertising and sales promotion (IEG, 2009).
   - Leverage Spending: Rights Fee = $1.6:$1.0 (high water mark was $1.9:$1 in 2007) (IEG/PR, 2011).

2. Advancement of modern technology and innovations in sponsorship industry.
   - e.g., jumbotron and in-stadium advertising.
   - Simultaneously or sequentially sponsoring multiple events.

3. Numerous but inconsistent research findings.
   - e.g., impact of congruence, involvement, and past experience on branding function
Sponsorship for branding purposes

Branding remains a major objective of sponsorship

According to IEG/PR 2011 Report, main sponsorship objectives are:

1. Create awareness / visibility (68%).
2. Increase brand loyalty (65%).
3. Change/reinforce image (53%).
Sponsorship for branding purposes

Introduction

Associative Learning Theory

Empirical Demonstration

Discussion

Branding remains a major objective of sponsorship

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3. Change/reinforce image (53%).

Existing theories of branding effects of sponsorship

- Zajonc’s (1968) mere exposure
- Pham’s (1992) low involvement processing
- Gwinner’s (1997, 1999) image transfer - highly cited (384 & 423)
- Pracejus’s (1998) inference-based model
- Cornwell et al’s (2006) role of articulation
- Wang’s (2013) incidental mood effect
The fundamental branding mechanism has not yet been well documented.

For instance,

1. Is the image of an event (e.g., NASCAR "fast") transferable to a sponsoring brand (e.g., "UPS")?

2. Should a brand sponsor multiple events with different images?

3. If there is any cue interference when multiple brands (different product category) sponsoring one event?
Purpose of This Study

- To make conceptual argument about the fundamental role of the associative learning in branding effects of sponsorship.
- To present two qualitatively distinct ways of learning: predictive learning and evaluative conditioning.
Why sponsorship has branding value?

- It is an underlying assumption that:
  
  *The mere fact of "being associated" has commercial value and can be exploited for corporate or marketing objectives.*

- The leverage of sponsorship is essentially:
  
  *Orchestration and implementation of marketing activities for the purpose of building and communicating an association to a sponsorship* (Cornwell, 1995).

- Here is an example:
  
  *Olympic sponsorship links the values of individual brands with the values of the Olympic Games — creating a powerful association* (IOC, 2009).
It’s time to define associative learning . . .

**Associative learning is:**

"The learning of the ways in which concepts are related" (Van Osselaer, 2008).

It rests on the assumption that:

*Human semantic memory or declarative knowledge is represented as a network of nodes* (Anderson, 1983; Keller, 1993).
Two ways of learning sponsorship associations

Different Paradigms of Conditioning

- **Pavlovian Conditioning**: Dog learn to predict food.

  ![Diagram of Pavlovian Conditioning](image-url)
**Two ways of learning sponsorship associations**

### Different Paradigms of Conditioning

- **Pavlovian Conditioning:** Animals predict environment; automatic physiological responses.
- **Associative Conditioning:** Researchers interest in cognitive and affective responses of human subjects.

1. Meaningful words (Razran, 1939);
2. Nonsense syllables (Staats & Staats, 1959);
3. Music and product preference (Gorn, 1982);
4. Pleasant scenes and product preference (Stuart, Shimp, & Engle, 1987); and
Two ways of learning sponsorship associations

Mode I: Evaluative Conditioning

- A process in which pairing a neutral element with a valenced element leads to a transfer of valence from one to the other element (Sweldens, Van Osselaer, & Janiszewski, 2010; Van Osselaer, 2008).

- "Love me, Love my dog".

- $\Delta S_{ij} = \alpha_i q_j \beta$, where $\Delta S_{ij}$ is association strength between cue $i$ and associate $j$, $\alpha_i$ cue salience parameter, $q_j$ associate $j$ value on some dimension, and $\beta$ learning rate.
Two ways of learning sponsorship associations

Mode II: Predictive Learning

- Consumers predict consumption benefits based on the product cues.
- Occurs when consumers have motivations to predict consumption outcomes.
- "Know me, Know my dog".
- Updating of associations only takes place when the learning system is not already correctly predicting an outcome.
- \[ \Delta S_{ij} = \alpha_i(q_j - O_j)\beta. \]
What factors influencing learning sponsorship associations?

- Cue Salience, $\alpha_i$
- Learning Rate Parameter, $\beta$
- Value of Association, $q_j$ in evaluative conditioning, or $q_j - o_j$ in predictive learning.
Integration with existing literature

I. Cue Salience

- **Extrinsic Involvement** (i.e., Allocation of **attentional capacity**).

II. Learning Rate Parameter

- **Intrinsic Involvement**
  - Psychological state of perceived relevance of the stimulus based on inherent needs, values, and interests (Zaichkowsky, 1986).
  - Represents **motivation** aspect of learning.

- **Consumer Knowledge**
  - Represents **ability** aspect of learning.
  - Richer knowledge base contributes to the construction of a distinctive association and thus memorability (Kyllonen et al., 1991).
  - It is related to the **familiarity, experience, expertise, and use** of the sponsor’s branded product (Lacey, Close, & Finney, 2010).
  - Consumer knowledge may block learning new associations.
Integration with existing literature

III. Value of Association

- Event Attitude and Emotional Experience
  - Represent the valence of the unconditioned stimulus.
  - Found to be two key drivers of sponsorship value (Christensen, 2006; Hansen, Martensen, & Christensen, 2005).

- Event-Brand Relatedness
  - Plays a role because the mental connection between the brand and an affective reaction triggered by the event is assumed to be indirect (Sweldens et al., 2010).
  - It may contain function-based relatedness and image-based relatedness (Sweldens et al., 2010).
  - It has been repeatedly found an important contributing factor to the branding effects of sponsorship (Speed & Thompson, 2000; Gwinner & Eaton, 1999; Becker-Olsen, 2003).
Methods

To demonstrate these two qualitatively distinct modes of learning, a factorial survey was conducted. The major variables in this demonstration includes:

**The Associative Learning Variables**
- Event Involvement
- Brand Knowledge
- Event Attitude
- Emotional Experience
- Brand-Event Relatedness

**The Branding Effects Variables**
- Perceived Quality
- Attitudinal Loyalty
- Behavioral Intention
The conceptual diagram is ...

Determinants of Learning Sponsorship Association

1. Event Involvement
2. Sport Involvement
3. Brand Knowledge (brand usage, experience, and favorability)
4. Event Attitude
5. Emotional Experiences (positive and negative emotions)
6. Brand-Event Relatedness (function-relatedness and image-relatedness)

Two Ways of Associative Learning

Predictive Learning

1. Attitudinal Loyalty
2. Perceived Quality
3. Behavioral Intention

Evaluative Conditioning

Branding Effects of Sponsorship
Data Analysis

Main Technique: Canonical Correlation

- **Purpose:** To determine multivariate relationship between associative learning variables and branding variables.
- **Find two variates (i.e., linear combinations of predictor variable and criterion variables, respectively) that have largest covariance.**
- **Large sample technique.**
- **Key statistics:**
  1. Canonical correlation coefficient.
  2. Standardized canonical function coefficient (i.e., canonical weight)
  3. Canonical structure loading (i.e., canonical loading)
- **PROC CANCORR procedure in SAS will be used.**
## Internal Reliability

<table>
<thead>
<tr>
<th>Construct</th>
<th>Number of Items</th>
<th>Cronbach alpha</th>
<th>Item-Total Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Involvement</td>
<td>10</td>
<td>0.86</td>
<td>0.50-0.66</td>
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<tr>
<td>Event Attitude</td>
<td>3</td>
<td>0.76</td>
<td>0.47-0.66</td>
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<tr>
<td>Positive Emotion*</td>
<td>12</td>
<td>0.92</td>
<td>0.58-0.80</td>
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<tr>
<td>Negative Emotion</td>
<td>7</td>
<td>0.85</td>
<td>0.54-0.68</td>
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<tr>
<td>Brand Knowledge</td>
<td>2</td>
<td>0.62</td>
<td>–</td>
</tr>
<tr>
<td>Event-Brand Relatedness</td>
<td>2</td>
<td>0.51</td>
<td>–</td>
</tr>
<tr>
<td>Sport Involvement</td>
<td>3</td>
<td>0.70</td>
<td>0.45-0.57</td>
</tr>
<tr>
<td>Attitudinal Loyalty</td>
<td>3</td>
<td>0.73</td>
<td>0.44-0.64</td>
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<td>Perceived Quality</td>
<td>2</td>
<td>0.71</td>
<td>0.55</td>
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<tr>
<td>Behavioral Intention</td>
<td>1</td>
<td>–</td>
<td>–</td>
</tr>
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</table>

Note: "Surprise" was deleted due to low correlation ($r=0.35$).
### Results of Canonical Correlation Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Function 1</th>
<th></th>
<th></th>
<th>Function 2</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Coef</td>
<td>$r_s$</td>
<td>$r_s^2$(%)</td>
<td>Coef</td>
<td>$r_s$</td>
<td>$r_s^2$(%)</td>
<td>$h^2$(%)</td>
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<tr>
<td><strong>Predictor set</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sport Involvement</td>
<td>-0.11</td>
<td>-0.04</td>
<td>0.15</td>
<td>-0.21</td>
<td>-0.12</td>
<td>1.41</td>
<td>1.57</td>
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<tr>
<td>Event Involvement</td>
<td>0.25</td>
<td>0.68</td>
<td>46.04</td>
<td>-0.52</td>
<td>-0.46</td>
<td>21.25</td>
<td>67.29</td>
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<tr>
<td>Brand Usage$^3$</td>
<td>0.02</td>
<td>0.04</td>
<td>0.14</td>
<td>0.19</td>
<td>0.01</td>
<td>0.01</td>
<td>0.15</td>
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<tr>
<td>Brand Familiarity</td>
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<td>0.13</td>
<td>1.62</td>
<td>0.09</td>
<td>0.41</td>
<td>16.74</td>
<td>18.36</td>
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<td>Brand Experience</td>
<td>0.27</td>
<td>0.39</td>
<td>15.54</td>
<td>0.78</td>
<td>0.78</td>
<td>60.89</td>
<td>76.43</td>
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<tr>
<td>Emotional Experience</td>
<td>0.31</td>
<td>0.73</td>
<td>52.74</td>
<td>-0.27</td>
<td>-0.36</td>
<td>13.03</td>
<td>65.77</td>
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<td>Event Attitude</td>
<td>0.12</td>
<td>0.65</td>
<td>42.81</td>
<td>0.22</td>
<td>-0.23</td>
<td>5.13</td>
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<td>Function Relatedness</td>
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<td>0.47</td>
<td>22.12</td>
<td>0.12</td>
<td>0.32</td>
<td>10.28</td>
<td>32.40</td>
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<td>Image Relatedness</td>
<td>0.46</td>
<td>0.78</td>
<td>60.59</td>
<td>0.02</td>
<td>-0.03</td>
<td>0.07</td>
<td>60.66</td>
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<tr>
<td>$R_c^2$</td>
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<td>31.93</td>
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<td></td>
<td>3.52</td>
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<td><strong>Criterion set</strong></td>
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<td></td>
</tr>
<tr>
<td>Attitudinal Loyalty</td>
<td>0.58</td>
<td>0.90</td>
<td>81.76</td>
<td>0.23</td>
<td>0.14</td>
<td>2.06</td>
<td>83.82</td>
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<tr>
<td>Perceived Quality</td>
<td>0.18</td>
<td>0.64</td>
<td>41.53</td>
<td>0.89</td>
<td>0.61</td>
<td>36.76</td>
<td>78.29</td>
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<tr>
<td>Behavioral Intention</td>
<td>0.43</td>
<td>0.82</td>
<td>67.86</td>
<td>-0.95</td>
<td>-0.45</td>
<td>20.44</td>
<td>88.30</td>
</tr>
</tbody>
</table>
Let’s summarize the findings...

We found two significant canonical functions, which we interpreted as:

**Function 1**

- **Criterion Variate:** "Positive branding effects"
- Significant contributors: Attitudinal loyalty, perceived quality, and behavioral intention (with same sign)
- **Predictor variate:** "Valence of the unconditioned stimulus"
- Significant contributors: Image-relatedness, emotional experience, event involvement, event attitude, and function-relatedness.
- Nonsignificant contributors: Brand usage, brand familiarity, brand experience.
- Termed "Evaluative Conditioning Function"
Function 1: Evaluative Conditioning

Canonical Function 1: Evaluative Conditioning Function

- Event Involvement
- Emotional Experience
- Event Attitude
- Function Relatedness
- Image Relatedness

First Predictor Variate

First Criterion Variate

- Attitudinal Loyalty
- Perceived Quality
- Behavioral Intention

Mao, Zhang & Connaughton (UF & UGA)  
NASSM 2013  
May 30, 2013
Function 2

Explain the deviance from the first canonical correlation function.

- **Criterion Variate:** "Mixed branding effects"
- **Significant contributors:** Perceived quality(+) ; behavioral intention(-)
- **Predictor variate:** "Contingency conditions of predictive learning"
- **Significant contributors:** Brand usage(+), Brand experience(+), Brand familiarity(+); Event involvement (-).

- **Contingency conditions:**
  1. Low event involvement + Favorable brand experience.
  2. High event involvement + Unfavorable brand experience.

- **Termed** "Predictive Learning Function".

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Function 2: Predictive Learning

Canonical Function 2: Predictive Learning Function

- Event Involvement
- Brand Familiarity
- Brand Favorability
- Brand Usage

Second Predictor Variate: 0.19

Second Criterion Variate: 0.61
- Perceived Quality
- Behavioral Intention

Relationships:
- Event Involvement: -0.46
- Brand Familiarity: 0.41
- Brand Favorability: 0.78
- Brand Usage: Dotted line
- Second Predictor Variate: 0.19
- Second Criterion Variate: 0.61
- Perceived Quality: -0.45
- Behavioral Intention: Dotted line
Discussion

- Indirect testing (Results are merely suggestive).
- Associative learning theory allows new predictions.
  1. Is the image of an event (e.g., NASCAR "fast") transferable to a sponsoring brand (e.g., "UPS")? –unlikely, unless "fast" can be conditioned
  2. Should a brand sponsor multiple events with different images? –OK with EC
  3. If there is any cue interference when multiple brands (different product category) sponsoring one event? –OK with EC
- Leveraging branding function is to manage a small set of learning parameters.

Questions? Comments?