

## **An embodied cognition approach to the study of consumer brand knowledge**

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### **Abstract**

This dissertation project challenges the traditional view on consumer brand knowledge by approaching brand knowledge from an embodied cognition perspective. Traditionally, marketing researchers have studied consumer brand knowledge predominantly from a semantic memory perspective. Semantic memory theory assumes that consumer brand knowledge consists mainly of descriptive attributes that do not account for situational adaptations and interpretations. In contrast, embodied cognition theory emphasizes the tripartite interplay of body, mind, and situation in shaping human knowledge. An embodied cognition approach to the study of brand knowledge acknowledges the brand as source of bodily experiences. Furthermore, it accounts for situational adaptations of brand knowledge and thus allows for context-specific interpretations of the brand. This dissertation project contributes to the study of consumer brand knowledge by delineating the concept embodied brand knowledge from other concepts like brand image, researching situational interpretations of brands, and enriching existing methods to study the embodied nature of brand knowledge.

**Keywords:** embodied cognition theory, multisensory brand experience, situation-specific interpretation of brands

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### **Problem Statement**

Consumer brand knowledge is one of the most studied phenomena in branding literature since consumers' cognitive representations impact emotional and behavioral reactions towards the brand (Christensen & Olson, 2002). Understanding its origin, its formation and retrieval, and possible influencing factors is consequentially a central goal for marketing researchers and practitioners. Christensen & Olsen (2002) define brand knowledge as cognitive representations relating to a brand. These cognitive representations are of descriptive and evaluative nature reflecting personal meanings about a brand (Keller, 2003).

Traditionally, marketing researchers have studied brand knowledge predominantly from a semantic memory perspective assuming an associative structure of brand-related information stored in consumer semantic memory (Aaker, 1991; Farquhar & Herr, 1993; Keller, 1993, 2003; Krishnan, 1997; Spears, Brown & Dacin, 2006). From a psychological perspective, semantic memory theory presupposes that 1) consumer brand knowledge consists predominantly of verbal, descriptive attributes and facts (Pavio, 2006); 2) consumer brand knowledge is de-contextualized without much information on situations where brand experience occurs (Barsalou, 2003), and 3) consumer brand knowledge is relatively stable not accounting for situation-specific adaptations of cognitive structures (Barsalou, 2003). This traditional view on consumer brand knowledge offers valuable insights into general brand-related facts, however, neglects the bodily basis of human thought and behavior (Hirschman & Holbrook, 1982; Zaltman, 1997). Consequently, semantic memory theory disregards the brand as source of bodily experiences resulting in multisensory brand representations (Schmitt, 1999) that can be subject to situation-specific adaptations and interpretations (Barsalou, 1999; 2003).

Research on consumer behavior partly approaches this gap by studying, for example, sensory, fantasy, and emotive reactions to product experiences (Hirschman & Holbrook, 1982); social, normative, and moralistic influences on the individual body understanding (Thompson & Hirschman, 1995); motivations to engage in high-risk consumption activities (Celsi, Rose & Leigh, 1993) or multisensory and aesthetic experiences of arts (Joy & Sherry, 2003). Yet, despite valuable insights into consumers' understanding of sensory experiences, these contributions 1) focus almost exclusively on products and consumption objects and not on brands and brand-related cognitive representation; 2) fail to acknowledge the situated nature of cognitive representations that seem to be sensitive to the social and physical

environment, and 3) dwell on the conscious awareness of actual experiences but miss the preconscious facet of multisensory knowledge (for an exception see Joy & Sherry, 2003; Zaltman 1997).

Studying brand knowledge with the assumption that human senses and environments form and shape knowledge, as embodied cognition theory postulates, adds complexity to the study of consumer brand knowledge. In reducing this complexity, this dissertation aims to contribute to the study of embodied brand knowledge by 1) defining the concept of embodied brand knowledge and delineating it from other concepts like brand image and brand personality, especially with regard to its psychological foundation; 2) researching how different situations impact brand knowledge retrieval and the interpretation of that knowledge to the individual; and 3) comparing different methods in researching brand knowledge and enriching existing methods aiming to study the embodied nature of knowledge.

## **Theoretical Background**

### *Brand experience – the origin of brand knowledge*

The majority of traditional literature focusing on consumer brand knowledge conceptualizes the brand as individual cognitive representations that emerge predominantly in response to marketing activities (e.g., Aaker, 1997; Keller, 1993, 2003; Spears, Brown & Dacin, 2006). Semantic memory organizes knowledge representations in the form of associative nodes representing mainly linguistic and de-contextualized facts about a brand (Anderson & Bower, 1973; Collins & Loftus, 1975; Tulving, 1972; see Keller, 1993). This literature stream predominantly assumes that “the brand resides inside the mind of the consumer” (Heding, Knudtzen & Bjerre, 2009, p. 85).

Developments in cognitive psychology, philosophy, and consumer research open new avenues to a broader understanding of consumer brand knowledge, acknowledging the tripartite interplay of body, mind, and environment that is driving human experience, understanding, and reasoning. Cognitive psychologist such as Barsalou (1999) and Glenberg (1997) strongly argue in favor of an embodied approach to cognition by providing empirical evidence of how human senses and situations influence human thinking. Cognitive linguists such as Johnson (1987) and Lakoff and Johnson (1999) emphasize the role of bodily experiences in forming and shaping human knowledge. Philosophers such as Merleau-Ponty (1962) maintains on the phenomenology of perception – the conscious and experiential perception of bodily processes embedded in an environment or situation. Consumer phenomenology (e.g., Thompson, Locander & Pollio, 1989; Hirschman & Thompson 1995)

seeks to describe and understand consumption experience as it emerges in any situation. Finally, recent thinking on research methods aims to include issues on embodied cognition, non-verbal communication, metaphors, and visual imagery (e.g., Zaltman 1997, Zaltman & Zaltman, 2008).

The embodied perspective on cognition assumes that “all knowledge derives from perceptual, behavioral, and affective experiences with the world” (Paivio, 2006, p. 25). Along with Johnson (1987) the term “experience” involves in its broad sense multisensory (sight, hearing, taste, smell, touch, body movements), emotional, social, historical, and linguistic dimensions. Experiences can stem from external stimuli (e.g., encoding multisensory stimuli from the actual brand experience like experiencing the store environment of the brand) but can also be subject to inner mental images or mental simulations generated within the consumer in form of visual, auditory, kinesthetic, haptic, and olfactory imageries (Barsalou, 2003).

In accordance with embodied cognition theory, consumer brand experience is not only influenced and constrained by the architecture of the body (Johnson, 1987) but takes place in different physical and social situations (Schwarz, 2006). In this context, Mühlbacher and Hemetsberger (2008, p. 12) argue that brand manifestations (e.g., branded products, people, stores, behaviors) “allow individuals and groups to sensually experience the brand”, depending on the current situation. This brand experience does not always relate to marketing activities intended from brand management as traditional literature on branding assumes, nor can be actively controlled by brand management (Mühlbacher & Hemetsberger, 2008). Consequently, investigating situations in which consumers experience the brand seems to be important since different situations impact brand experience, the formation of brand knowledge, and finally brand-related outcomes such as attitudes and behavior.

#### *Consumer memory – the different types of brand knowledge*

Consumer brand experience becomes internalized through the formation of brand-related cognitive representations (Paivio, 2006) that accumulate to consumer brand knowledge. In its traditional form, consumer brand knowledge can be defined as cognitive representations incorporating descriptive and evaluative brand-related information (Keller, 2003; p. 596). These descriptive and evaluative brand-related cognitions are stored in consumer semantic memory in the form of associative networks (Aaker, 1991; Farquhar & Herr, 1993; Keller, 1993, 2003; Krishnan; 1997; Spears, Brown & Dacin, 2006). Semantic memory theory, upon which traditional research on brand knowledge bases its assumptions,

presupposes that multisensory brand experiences are translated into verbal and de-contextualized codes (Anderson & Bower, 1973; Collins & Loftus, 1975; Tulving, 1972) not corresponding to the actual modality- and situation-specific perception of the event (Barsalou, 2003).

In contrast, embodied cognition theory holds that multisensory experiences become internalized by producing modality-specific, situational cognitive representations (Barsalou, 1999; 2003; Clark, 1997; Damasio, 1994; Glenberg, 1997; Paivio, 2006). This implicates that visual cues produce visual representations; auditory cues produce auditory representations; linguistic cues linguistic representations and so on. Accepting the assumption that consumers store modality-specific cognitive representations a distinction between verbal and non-verbal types of knowledge representations is possible. Verbal representations result from experiencing and processing verbal events like reading a brand-related text (Barsalou, 1999; Paivio, 2006). Even though verbal language is essential in representing, storing, and communicating thoughts (Bickerton, 1990), a bulk of human communication is non-verbal (Zaltman, 1997). Non-verbal representations result from non-verbal cues during brand experience that must be seen, heard, tasted, moved or felt. These non-verbal representations are stored in their original forms as pictures, smells, sounds or body movements (Barsalou, 1999, 2003; Johnson, 1987; Paivio, 2006) mostly at the cognitive preconscious level of the mind (Zaltman, 1997).

Approaching brand knowledge from an embodied cognition approach raises several issues ignored in traditional branding literature: 1) it calls for a delineation of the concept embodied brand knowledge from other concepts like brand image or brand personality, especially with regard to its psychological foundation; 2) it needs to rethink basic assumptions regarding processing and storage modes; do consumers represent brand knowledge in the form of associated words predominantly stored in consumer semantic memory? Or do consumers organize brand-related knowledge episodically in the form of personal stories (e.g., Bruner, 1991) that incorporate multisensory experiences with the brand? (Barsalou, 1999); 3) it requires better understandings in the selection of appropriate research methods depending on the different types of brand knowledge (verbal vs. nonverbal) researchers want to tap; and 4) it needs to advance current research methods allowing consumers to convey non-verbal (not only visual), partly pre-conscious and metaphorical forms of brand knowledge that can hardly be expressed in verbal and visual forms.

*Situational adaptations - brand knowledge dynamics*

According to semantic memory theory, consumer brand knowledge is de-contextualized without much information on situations where brand experience has occurred (Barsalou; 2003; Mantonakis, Whittlesea, & Yoon, 2008; Paivio, 2006; Tulving, 1972). Furthermore, semantic memory theory does not account for dynamic adaptations of brand-related cognitive structures allowing for situation-specific interpretations of the brand and related experiences (Barsalou, 2003).

Embodied cognition theory presupposes that human knowledge is sensitive to current goals and to social and physical environments in which these goals are pursued (Schwarz, 2006). Context-sensitive cognition allows people to flexibly and dynamically acquire and reproduce information that is relevant in a certain situation (Barsalou, 1999, 2003; Rohrer, 2006; Schwarz; Wilson, 2002). With respect to knowledge dynamics, Barsalou (1989, 1999) emphasizes that individual cognitive structures contain context-dependent and context-independent knowledge, affects, and behaviors. In this sense, context-independent knowledge elements should not vary across situations and should provide common basis for interpretation. Context-dependent knowledge structures allow for situation-specific interpretations and situational meanings of the brand to the individual (Mühlbacher & Hemetsberger, 2008; Schwarz, 2006).

Adhering on the aforementioned assumptions on the embodied nature of brand knowledge it requires to 1) consider different brand experience situations when researching consumer brand knowledge to partly explain brand knowledge instabilities (Dolnicar & Rossiter, 2008); 2) identify context-independent knowledge elements and knowledge elements that are sensitive to contextual influences; and 3) understand how consumers interpret the brand depending on the situation.

### **Research Objective and Project Contribution**

In comparison to previous studies this dissertation approaches consumer brand knowledge from an embodied cognition perspective. This dissertations aims to enrich existing literature theoretically and empirically by answering the following research questions:

- 1.) How do different situations impact brand knowledge retrieval and the meaning of that knowledge to the individual?
- 2.) Assuming multiple types of brand knowledge representations, which retrieval methods are appropriate for what knowledge types, especially with regard to multisensory knowledge? Do the outcomes differ depending on the research method?

## **Research Process and Present State**

This cumulative dissertation project approaches brand knowledge from an embodied cognition perspective with a number of published and unpublished papers dealing with different aspects of embodied brand knowledge. To answer the above research questions the definition of the concept embodied knowledge and its delineation from other constructs like brand image (Keller, 1993) or brand personality (Aaker, 1997) is necessary. Depending on the research question, different methodological approaches suitable to explain the issue at hand will be applied:

### ***Ad research question 1:***

In the case of the situational influences on brand knowledge retrieval, the author applies a verbal and metaphorical analysis to delve into embodied knowledge elements consumers convey in brand narratives in different situations. The aim of this study is a) to identify embodied knowledge elements through metaphorical analysis (see Johnson, 1987; Lakoff & Johnson, 1999) and b) to investigate how the underlying meaning of knowledge retrieved varies across situations. *Data are already collected. Planned for EMAC submission 2010.*

A second research project focuses on how different environments influence the interpretation and evaluation of brand-related associations. Moreover, the level of brand familiarity, sympathy, and perceived context-brand fit will be used as moderating variables. *Data are already collected; however, data analysis and theoretical development of the paper are still at the beginning.*

### ***Ad research question 2:***

The study of different types of brand knowledge and retrieval methods is based on a research project comparing three approaches to access consumer brand knowledge: free association technique, storytelling, and collage-creation. Each method is suitable to tap and reproduce different aspects of brand knowledge. The empirical study combines the three methods in an explorative setting to retrieve consumer brand knowledge regarding a major sports brand. The study compares knowledge that each method elicits and provides brand management with recommendations how to decide when to use each method and whether to employ one or more of these methods. *This paper is accepted for publication in Psychology & Marketing, forthcoming.*



A second study concerned with the retrieval of different brand knowledge types compares consumer brand associations and stories. The project contributes to the study of consumer brand knowledge by offering a “brand knowledge synthesis” accounting for different types of brand knowledge elements various literature streams propose: semantic, episodic, and embodied knowledge elements. The article theoretically discusses and empirically investigates which types of brand knowledge elements common brand knowledge retrieval methods (free-associating versus storytelling) actually elicit. The findings illuminate the actual complex nature of consumer brand knowledge. *Submitted for the Annual Conference of Consumer Psychology. Planned to submit full paper to JCP. Stage of Research Process: Middle/Late Stage*

Finally, the project to develop a construction tool to elicit multisensory brand knowledge has been inspired by techniques like the Zaltman Metaphor Elicitation Technique (Zaltman, 1997) and Cognitive Sculpting (Sims & Doyle, 1995). In advancing existing methods this research projects aims to elicit the broad range of consumer non-verbal brand knowledge, not only knowledge stored in its visual form. The pre-test has already been administered in which the author participated. Preliminary observations and feedback from other participants acknowledge the intuitive and partly preconscious nature in constructing a multisensory 3D-Sculpture representing, in this case, the meaning of the department. The method has already been applied in managerial contexts. *Conference-Paper to publish methodological underpinnings and preliminary results is planned for EMAC 2010. Journal paper planned for 2010.*

### **Theoretical Implications**

This dissertation project approaches consumer brand knowledge from an embodied cognition perspective aiming to enhance the current understanding of brand knowledge. In studying different aspects of the issue, this dissertation seeks to 1) understand how consumer brand knowledge and the underlying meaning to the individual differs across situations; 2) enhance current research methods to retrieve multisensory brand knowledge; and 3) provide the foundations for future research linking embodied brand knowledge with brand-related outcomes such as attitudes and behaviors.

### **Managerial Implications**

Approaching consumer brand knowledge from an embodied cognition perspective may entail several managerial implications.

Firstly, if knowledge acquisition, retrieval, and interpretation depend on different situations, management needs to consider different brand experience situations when investigating consumer brand knowledge. Dolnicar & Rossiter (2008) ascribe brand association instabilities predominantly to methodological factors, but do not include the embodied nature of cognition into their research. Consequently, possible reasons for brand knowledge instabilities are different contexts impacting knowledge acquisition and retrieval. For example, the brand Red Bull may elicit different associations when the stimulus is a mixed drink using the product as one ingredient as opposed to a stimulus showing one of the Red Bull sports events. Communication and brand research strategies need to account for this context-dependency of consumer cognition.

Secondly, assuming that consumer cognition is sensitive to the immediate environment challenges research results obtained in controlled laboratory settings. For example, consumers might react to new products completely different in a controlled laboratory setting than testing the product in a vivid store environment with background music and other consumers.

Thirdly, studying consumer brand knowledge from an embodied cognition perspective allows management understanding and influencing the sensory experience of the brand that may be more or less prominent in different situations. Furthermore, marketers can focus on synesthesia, a specific condition in which a person receives one stimulus in one sense modality and experiences the sensation in another sense modality, in influencing brand experiences. For example, conveying the verbal and visual form of the brand logo simultaneously via smell creates an invisible character of the brand logo (see Sissel Tolaas) and may increase brand recognition in certain situations. *(18.400 characters)*

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