Destination Neurogenetics: Creation of destination meme maps of tourists

Hilmi A. Atadil a,⁎, Ercan Sirakaya-Turk b, Seyhmus Baloglu c, Ksenia Kirillova d

a Global Hospitality and Tourism Management, College of Business, University of West Florida, 11000 University Pkwy., Pensacola, FL 32514, United States
b College of Hospitality, Retail and Sport Management, University of South Carolina, 701 Assembly Street, Columbia, SC 29208, United States
c University of Nevada, Las Vegas, William F. Harrah College of Hotel Administration, 4505 S. Maryland Pkwy., Las Vegas, NV 89154, United States
d School of Hotel and Tourism Management, The Hong Kong Polytechnic University, 17 Science Museum Road, TST East, Kowloon, Hong Kong

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A B S T R A C T

Seminal marketing studies suggest that the concepts of destination image and meme maps are highly related. Using the Theory of Spreading Activation, this study involves creation, assessment, and comparison of the structure of tourists’ destination memes of a mature tourism destination in Turkey. The study reports the findings of two separate studies involving Russian and German travelers to Antalya. Results show sea, sun, and beach memes are the three most common general memes activating the Antalya brand; however, the two market segments’ (Russian and German travelers) meme maps differ. While traditional marketing theories rely on the Rational Choice Theory that accentuates the role of the conscious choice of a consumer, this study involving Destination Neurogenetics (DNegen) supports the Infection of the Mind Theory. Findings suggest that greater meme-associations represent high-equity and strong brands.

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1. Introduction

Dawkins (1976) defines a meme as a unit of cultural transmission that includes a piece of information stored in memory. A meme represents perceptions related to an image, and all other real or fictional entities (Henderson, Iacobucci, & Calder, 1998; Krishnan, 1996). The Theory of Spreading Activation, as a foundational theoretical model of Memetics, postulates that memes link to each other in a person’s memory through semantic similarity lines that demonstrate the association between pairs of memes (Collins & Loftus, 1975; Quillian, 1967). A meme map is a generic network comprising of memes and the similarity lines between these memes. Foundational articles in the marketing field contribute to the evolution of Memetics knowledge and literature. For example, Krishnan (1996) examines the characteristics of brand associations following Keller’s (1993) consumer-based brand equity conceptualization. In marketing, the term “brand association” refers to a meme map. Similarly, Keller (1993, p. 3) defines an image as “perceptions about a brand as reflected by the brand associations held in consumer memory.” Even though image and brand of a destination are two different constructs, the brand’s existence depends on the destination’s image formation (Cai, 2002). Image formation is the construction of a destination’s mental representation influenced by the information cues transferred by image information agents and personal factors (Alhemoud & Armstrong, 1996; Gunn, 1972). Foundational travel decision-making models explicitly state that travelers’ perceived images of destinations play a significant role in their travel decisions, such as making the choice to return to a destination (e.g., Baloglu & McCleary, 1999; Um & Crompton, 1990; Woodside & Lyonski, 1989). At a theoretical level, parallel literature on the subject of destination image and Memetics point to a unifying postulation that destination images and meme maps are highly related mental constructs. Further, meme maps are antecedents of images whereas images are the byproducts of meme maps. Thus, the generation of travelers’ meme maps regarding a destination can thoroughly reflect their destination images for a specific destination. A review of the relevant marketing literature suggests highly developed and multi-dimensional meme maps represent well-known brands including favorite tourism destinations (e.g., Low & Lamb, 2000).

Antalya, as the host city of EXPO2016, is the fourth most visited tourism destination in the world with around 300 sunny days in a year (EXPO, 2016), Antalya, known to the visitors as heaven on earth and the Turkish Riviera, is a mature and successful tourism destination. German and Russian travelers represent the top two source markets for Antalya (Turkish Ministry of Culture & Tourism, 2016), despite recent political events (e.g., violent tension between Turkey and Russia, and political instability) temporarily curtailing tourism activity.

The current study’s purpose is twofold: (1) to identify the overall Destination Image Meme Maps (DIMMs) of Antalya, Turkey, and the tourists’ favorite tourism destination, and (2) to identify and evaluate the similarities and differences in the structures of the previously generated two categories of DIMMs. Both the Spreading Activation and the

⁎ Corresponding author.
E-mail addresses: atadil@uwf.edu (H.A. Atadil), ercan@mailbox.sc.edu (E. Sirakaya-Turk), seyhmus.baloglu@unlv.edu (S. Baloglu), ksenia.kirillova@polyu.edu.hk (K. Kirillova).
Symbolic Interaction Theories (Blumer, 1969; Quillian, 1967) provide the basis for the study. Although Memetics has been around for over two decades, researchers still consider Memetics a new paradigm in consumer research. To date, methodological challenges involving the conceptualization and operationalization of constructs limit Memetic’s use. The present study is likely the first in tourism and advances the knowledge and application of Memetics. This Memetics study’s methodology expands the contents of the toolbox available to tourism researchers by shedding a better light on decision-making processes and consumer behavior. This new research paradigm’s results will influence new marketing communication and positioning strategies that can activate the most influential and common brand memes stored within individuals’ minds as network of meme-maps.

2. Literature review

Berger, Dittenbach, and Merkl (2004, p. 219) define an associative network as “a generic network which includes nodes representing information items (semantic entities) and associations between these nodes that express relationships.” Memetics examines the knowledge of associative networks from a Darwinian evolutionary perspective. Dawkins (1976) defines the meme as a unit of cultural transmission or imitation that includes a piece of information stored in memory. A meme can replicate and evolve, similar to a gene. However, a meme only inhabits the mind of a person and spreads by interpersonal communication and artifacts (Williams, 2000). The terms node and meme actually represent the same concept. Along the same lines, are the terms associative network and meme map. Thus, memes also represent an individual’s perceptions regarding real or unreal world entities (Henderson et al., 1998; Krishnan, 1996). Moreover, a display of memes and lines connecting these memes becomes a meme map. These lines demonstrate the relationship between a pair of memes. The width of the lines increases as the level of the relationship increases, and vice versa (Berger et al., 2004; Henderson et al., 1998). The terms meme and meme map include the terms node and associative network, respectively, in the current study.

In marketing, the term “brand associations” often refers to a meme map (e.g., Romanuk & Nenycz-Thiel, 2013). Krishnan (1996) confirms that brand associations have four characteristics. First, the number of associations equals the total number of memes in a meme map. Second, the valence of associations is the value (positive, negative, or neutral) of a certain meme. While a traveler can attach a positive value to a meme (e.g., rich history), a negative value can attach to another meme (e.g., traffic congestion). Third, the uniqueness of associations is the ability of a certain meme or meme map to be unique. For instance, a meme map about the image of Paris might have the Eiffel Tower as a unique meme. Lastly, the origin of associations indicates the source of a meme. These information sources include (1) direct experience with the destination, (2) friends and/or relatives, and (3) advertisements. Henderson et al. (1998) applies social network analysis to brand associative networks. They provide a deeper evaluation of brand associations’ characteristics by employing social network analysis.

Furthermore, Low and Lamb (2000) find that popular brands tend to have multi-dimensional meme maps formed of improved memory structures in consumers’ minds. Around the same time, Supphellen (2000) suggests that qualitative research approaches (e.g., free association method) enable researchers and managers to obtain a deeper understanding of unconscious and non-verbal brand associations in consumers’ minds. More recently, Romanuk and Nenycz-Thiel (2013) evaluated the relationship between customer’s previous behavioral brand loyalty and present brand associations. Authors empirically supported that the brand loyalty increases, so does the strength of the brand associations. Mühlbacher, Raies, Grohs, and Koll (2016) assessed the relationship between brand association characteristics and brand strength. Further marketing studies evaluated different aspect of the brand associations (e.g., Grohs, Raies, Koll, & Mühlbacher, 2016; Koll & von Wallpach, 2014; Michel & Donthu, 2014). However, a review of the relevant marketing literature suggests that no common research method or typical analytical tool exists to allow researchers to study Memetics.

Application of the Memetics to Tourism and Hospitality (T&H) research is quite limited. Firstly, Li and Stephenkova (2012) attempt to generate associative networks that reflect different image dimensions of the United States as a tourism destination as perceived by Chinese travelers. Following Echtner and Ritchie (1993), the authors interviewed the respondents through open-ended questions. Respondents mostly associate urban, advanced economic development, an open and democratic system, improved technology, and big cities with the United States. The authors stress that the usage of convenience sampling limits their study. Secondly, Baloglu, Henthorne, and Sahin (2014) assess the destination image and brand personality of Jamaica. The authors identify destination-specific brand image and personality characteristics through qualitative questions. The authors conclude that individuals possess mixed images regarding a destination’s image. Their study demonstrates promising empirical evidence for the usage of the SPSS Modeler in the generation of associative networks. Lastly, Huang, Li, and Li (2015) explore the perceptions of Chinese travelers and generate an associative network for Taiwan as a tourism destination. The authors collected data through a self-administrated survey and employed both quantitative and qualitative techniques to analyze the obtained data. Their overall findings indicate that Chinese travelers’ brand associations are highly favorable to Taiwan. In sum, these three studies provide promising empirical evidence for the application of associative networks knowledge to T&H research. However, these studies do not take theoretical information regarding Memetics into consideration. Thus, these studies could only provide a limited understanding for this study subject.

Collins and Loftus (1975) develop one of the most influential meme map models based on the Theory of Spreading Activation (TSA). This theory depends on Quillian’s (1968) spreading activation theory of human semantic processing that enables computers to imitate human memory search behavior (Anderson, 1983). The crux of Quillian’s theory (1968) posits that when a person is reminded of a stimulus or presented with a cue, an activation starts in a corresponding meme. Stimulus meme activation starts and spreads to other memes. This memory search process is called spreading activation (Collins & Loftus, 1975; Henderson et al., 1998). Collins and Loftus (1975) propose an extended version suggesting cue intersection occurs when a stimulus meme(s) reaches the same corresponding meme. At this point, the individual processes the meme map’s meaning. This evaluation influences the individual’s behaviors, thoughts, and emotions. Moreover, Collins and Loftus (1975) suggest that a meme map includes semantic similarity lines. More links (or lines) connecting two memes exist if these particular memes have more shared characteristics than other memes available in a meme map. This assumption describes the rationale behind the semantic relatedness concept. Based on this concept, the line’s width changes in a given meme map. If two particular memes (e.g., croissant, Paris) strongly associate, an individual’s likelihood of remembering one meme increases (e.g., croissant) when exposed to the other meme (e.g., Paris).

Many researchers who apply Memetics to marketing research base their studies on the Theory of Spreading Activation (TSA) (e.g., Brandt, de Mortanges, Blumelhuber, & van Riel, 2011; Henderson et al., 1998). Among the limited T&H studies, Cai (2002) concludes that the strength and favorability of brand associations, as well as these brand associations’ connections to the brand identity, strongly relate to the core principles of TSA. Symbolic Interaction Theory (SIT) helps to understand the social foundations of Memetics. SIT asserts that the meanings that individuals attach to things determine their behaviors towards these particular things. Most importantly, these meanings derive from social interactions and they are under the influence of the symbolic environment (Blumer, 1969). A symbol serves as a stimulus that includes a stored meaning and value.