

# BEYOND BRAND IMAGE: A NEUROMARKETING PERSPECTIVE

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## ABSTRACT:

The study presents, discusses and analyses the brand image and the role of emotions. The text consists of two parts: neuroscience and marketing-psychological. The neuroscience section presents and discusses emotions from a medical perspective. Emotions are expressed by visceral motor changes. A special review is based on Damasio's theory of emotions analysed in the context of neuromarketing. In the marketing-psychological part, the roles of emotions on consumer behaviour are discussed. It starts from the presentation of the brand image and the connection with the brand identity. The image starts from the roots of imagination, the theory of emotion and the psychological construct of self-image. The brand becomes the consumer's image communicating at the symbolic level, and at the same time represents the active image of the consumer's self-image. Given the increasing complexity of the neuromarketing doctrine, the proposed approach could be useful for improving the understanding of brand image from an interdisciplinary perspective. This study provides theoretical framework on brand image and neuromarketing. Moreover, it offers valuable insight to marketers from neuroscience and semiotics.

## KEY WORDS:

brand, emotion, image, neuromarketing, self-image

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## 1 Introduction

*Our true passions are selfish.*<sup>1</sup>

We view consumer impressions as rational, emotional and combined. Two components are important for a successful brand: the perception of the value that the consumer receives, and the perception used through the identification process. It has long been considered that purchasing decisions are rational.<sup>2</sup> According to such an understanding, key purchasing models have been established that are still valid today: price formation and the principles of supply and demand. When forming a price according to demand, some authors point out the relationship between the price that buyers are willing to pay as a result of their own perception of the value of that brand.<sup>3</sup> Because of the above, questions arise: is shopping really a rational act? How important are emotions? Can the construct of emotion be the focus of marketing research?

<sup>1</sup> STENDHAL, M. H.: *Crveno i crno*. Zagreb : Globus medija, 2004, p. 130.

<sup>2</sup> SAMUELSON, P. A., NORDHAUS, D. W.: *Economics*. New York : McGraw-Hill, p. 640-641.

<sup>3</sup> NAGLE, T. T., HOGAN, J., ZALE, J.: *The Strategy and Tactics of Pricing*. New York : Routledge, 2016, p. 17-46.



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As a scientific response, the discipline of consumer behaviour first emerged<sup>4</sup> which offered psychological and sociological explanations. This was followed by postmodern marketing theories<sup>5</sup> that look at the consumer and the brand as sociological, anthropological and cultural phenomena. Finally, with the emergence of behavioural economics and neuroeconomics, the question of rational choice has been raised again.<sup>6</sup> Behavioural learning theories assume that learning is the result of a reaction to external events and accordingly, the consumer reacts to the brand association. Consequently, consumers who are 'rewarded' for their choice are likely to buy the same brand. Thanks to neuroscience, economics, and later marketing put the focus of research on the consumer as a key component.

However, the question of emotions and marketing remains open. Marketing is a scientific discipline that studies the market, recognises and meets social needs. However, marketing is complicated.<sup>7</sup> It creates needs, but it also creates artificial, imaginary and hidden desires. It creates them in the form of a brand, in the form of a story, metaphor and idea, in the form of consumer emotion. Therefore, we can metaphorically view cognition and emotion as a reflection of marketing and consumers. In the spirit of rationalism, cognition and emotion are the two major categories of mind. Rationality is treated as a mind product, and emotion as a physical category.<sup>8</sup> Even the metaphors that appear in the very description of emotions are attributed to bodily, animal emotions<sup>9</sup> even when they speak of the brain as a primitive and old, reptilian brain.<sup>10</sup> This 'animal' in emotions is also another metaphor that represents the irrational and the unconscious, just like a brand that is a metaphor for consumer desires. So, the topic of this study, amongst other things, is to expose those emotional and unconscious images that are beyond the brand image.

The purpose of the text is to investigate, analyse and present the brand image from a neuroscience, psychological and neuromarketing perspective. The concept of brand and brand image was analysed to confirm the brand identity and consumer impressions. The study consists of two parts. In the first part, we discuss emotions, the connection between consumers and the structure of emotions. It starts from mental models that represent the brand and sensory modalities, which represent elements of the brand. It starts from theoretical models, somatosensory images,<sup>11</sup> consciousness and the role of emotion in creating positive impressions. The brand image from the neuroscience point of view is analysed, connecting the concept of emotion with the consumer's perceptions. We interpret conscious images and image as a mental pattern in neuromarketing doctrines. The second part discusses the consumer's self-image, their positive impressions of brands, analyses the symbolic aspects of the brand, the concept of consumer perception in relation to brand image, explains the role of emotions in choosing and creating an image and, from a psychological point of view, discusses image as a reflection of consumers. We use the methodology of Kapferer's brand identity,<sup>12</sup> Keller's image<sup>13</sup> and Damasio's mental model.<sup>14</sup>

## 2 Literature Review

Theoretical observations of consumers have evolved and today we can classify them into two key groups in terms of content: a group focused on needs and a group focused on desires. In the first group, research is centred on consumer needs, with a focus on rational behaviour. It is more interpreted how the consumer behaves, not

why they behave that way. In the second group, contemporary marketing<sup>15</sup> takes an interdisciplinary approach, so the research is based on metaphorical aspects of the brand, and the focus is on the motives of the purchase. Ultimately, with the inauguration of neuroscience into economics, the answers were offered by research from behavioural economics,<sup>16</sup> neuroeconomics,<sup>17</sup> and later neuromarketing.<sup>18</sup> Genetic, molecular biology, anatomy, behavioural observation, and psychology methods are most used in neuroscience research.<sup>19</sup>

Behavioural research studies how individuals make decisions and how they interact. Neuroeconomics clarifies the very structure of purchasing decisions, i.e., demystifies rational choice. Because neuroeconomics and neuromarketing are multidisciplinary fields, they use insights from neuroscience, psychology, sociology, neurology and physiology to explain the background to key issues of consumer behaviour. The behaviourist view of the "black box"<sup>20</sup> offers us very clear answers to aspects of stimuli, perceptions and reactions to stimuli. Changing the paradigm of consumer behaviour confirms that the response in consumer behaviour is not in the prefrontal cortex, which is key to rationality, but deep in the emotions that strongly influence consumer choice. And this is exactly the topic of this study, the deconstruction of the brand image as a key entity of modern marketing.

The term "neuromarketing" as it is used today in the scholarly literature was first used in a study in 2007<sup>21</sup> and research from 2010,<sup>22</sup> and the word "neuromarketing" itself appeared in 2002, established by the Atlanta advertising company from the United States. The concept of "neuromarketing" is still highly debatable, especially from the ethical point of view.<sup>23</sup> Neuromarketing does not always have to use functional magnetic resonance (fMRI) to research brain functioning.<sup>24</sup> Neuromarketing uses non-invasive technology to directly obtain consumer feedback on marketing stimuli, such as positron emission tomography (PET), electroencephalography (EEG), galvanic skin response (GSR), and eye tracking.<sup>25</sup> Although neuromarketing uses a variety of tools used in neuroscience, medicine, psychology and marketing, research into consumer behaviour and their reactions to stimuli is key to neuromarketing. Therefore, the goal of neuromarketing is to clarify conscious, unconscious, emotional, cognitive, psychological, and physiological stimuli and to understand their functioning.<sup>26</sup>

4 SOLOMON, R. M. et al.: *Consumer Behaviour: A European Perspective*. London: Prentice Hall, 2009, p. 4-26.

5 KESIĆ, T.: *Ponašanje potrošača*. Zagreb: Opinio, 2010, p. 21-33.

6 EVITATINI, H.: Što su heuristike? In POLŠEK, D., BOVAN, K. (eds.): *Uvod u bihevioralnu ekonomiju*. Zagreb: Institut društvenih znanosti Ivo Pilar, 2014, p. 49-52.

7 KOTLER, P., KELLER, K. L.: *Marketing Management*. New Jersey: Prentice Hall, 2006, p. 4.

8 DIXON, B.: Animal Emotion. In *Ethics & the Environment*, 2001, Vol. 6, No. 2, p. 23.

9 SOLOMON, R. C.: *Love: Emotion, Myth, and Metaphor*. New York: Prometheus Books, 1990, p. 34-40.

10 RENVOISE, P., MORIN, C.: *Neuromarketing*. Nashville: Thomas Nelson, 2007, p. 5-6.

11 DAMASIO, A.: *Osjecaj zbilvanja*. Zagreb: Algoritam, 2005, p. 309.

12 KAPFERER, J. N.: *The New Strategic Brand Management*. London: Kogan Page, 2008, p. 171-197.

13 KELLER, K. L., APÉRIA, T., GEORGE, M.: *Strategic Brand Management: A European Perspective*. Harlow: Prentice Hall, 2008, p. 128-166.

14 DAMASIO, A.: *Osjecaj zbilvanja*. Zagreb: Algoritam, 2005, p. 22-48.

15 KOTLER, P., KELLER, K. L.: *Marketing Management*. New Jersey: Prentice Hall, 2006, p. 272-341.

16 HENDERSON, J. P.: Što je neuroekonomija? In POLŠEK, D., BOVAN, K. (eds.): *Uvod u bihevioralnu ekonomiju*. Zagreb: Institut društvenih znanosti Ivo Pilar, 2014, p. 445-449.

17 See: COLIN, C., LOEWENSTEIN, G., PRELEC, D.: Neuroeconomics: How Neuroscience Can Inform Economics. In *Journal of Economic Literature*, 2005, Vol. 43, No. 1, p. 40; HENDERSON, J. P.: Što je neuroekonomija? In POLŠEK, D., BOVAN, K. (eds.): *Uvod u bihevioralnu ekonomiju*. Zagreb: Institut društvenih znanosti Ivo Pilar, 2014, p. 445-451.

18 See also: AGARWAL, S., DUTTA, T.: Neuromarketing and Consumer Neuroscience: Current Understanding and the Way Forward. In *Decision*, 2015, Vol. 42, No. 4, p. 458; KAHNEMAN, D., TVERSKY, A.: Sudenje u uvjetima neizvjesnosti. In POLŠEK, D., BOVAN, K. (eds.): *Uvod u bihevioralnu ekonomiju*. Zagreb: Institut društvenih znanosti Ivo Pilar, 2014, p. 57-60; BIRKNEROVÁ, Z. et al.: Analysis of Consumer Awareness of Neuromarketing. In *TEM Journal*, 2022, Vol. 11, No. 2, p. 873; DE OLIVEIRA, J. H. C., GIRALDI, J. D. M. E.: What Is Neuromarketing? A Proposal for a Broader and More Accurate Definition. In *Global Business and Management Research*, 2017, Vol. 9, No. 2, p. 24; MORIN, C.: Neuromarketing: The New Science of Consumer Behavior. In *Society*, 2011, Vol. 48, No. 2, p. 134; HSU, M.: Neuromarketing: Inside the Mind of the Consumer. In *California Management Review*, 2017, Vol. 59, No. 4, p. 13-16.

19 PURVES, D. et al.: *Neuroznanost*. Zagreb: Medicinska naklada, 2016, p. 589-605.

20 SOLOMON, R. M. et al.: *Consumer Behaviour: A European Perspective*. London: Prentice Hall, 2009, p. 246.

21 FUGATE, D. L.: Neuromarketing: A Layman's Look at Neuroscience and Its Potential Application to Marketing Practice. In *Journal of Consumer Marketing*, 2007, Vol. 24, No. 7, p. 386.

22 FISHER, C. E., CHIN, L., KLITZMAN, R.: Defining Neuromarketing: Practices and Professional Challenges. In *Harvard Review of Psychiatry*, 2010, Vol. 18, No. 4, p. 231.

23 See: MURPHY, E. R., ILLES, J., REINER, P. B.: Neuroethics of Neuromarketing. In *Journal of Consumer Behaviour*, 2008, Vol. 7, No. 1, p. 295; JELIĆ, N.: Bihevioralna ekonomija, neuroekonomija, neuromarketing. In *Jahr - European Journal of Bioethics*, 2014, Vol. 5, No. 9, p. 198.

24 FISHER, C. E., CHIN, L., KLITZMAN, R.: Defining Neuromarketing: Practices and Professional Challenges. In *Harvard Review of Psychiatry*, 2010, Vol. 18, No. 4, p. 232.

25 LEE, N. et al.: This Is Your Brain on Neuromarketing: Reflections on a Decade of Research. In *Journal of Marketing Management*, 2017, Vol. 33, No. 11-12, p. 879.

26 Compare to: FISHER, C. E., CHIN, L., KLITZMAN, R.: Defining Neuromarketing: Practices and Professional Challenges. In *Harvard Review of Psychiatry*, 2010, Vol. 18, No. 4, p. 231-232; JELIĆ, N.: Bihevioralna ekonomija, neuroekonomija, neuromarketing. In *Jahr - European Journal of Bioethics*, 2014, Vol. 5, No. 9, p. 198; HSU, M.: Neuromarketing: Inside the Mind of the Consumer. In *California Management Review*, 2017, Vol. 59, No. 4, p. 13-18; LEE, N. et al.: This Is Your Brain on Neuromarketing: Reflections on a Decade of Research. In *Journal of Marketing Management*, 2017, Vol. 33, No. 11-12, p. 879-880.

A lot has been written about neuromarketing, which can be read especially from the bibliometric research<sup>27</sup> and literature review, in which it is emphasised that the interest in the field of neuromarketing is growing every year.<sup>28</sup> Brands relate to emotions,<sup>29</sup> but their research is very complex,<sup>30</sup> because it is about the image as a perceptual creation of the brand.<sup>31</sup> For this reason, fundamental questions about brand image, attachment and emotions associated with brands<sup>32</sup> continue to be the subject of consciousness research.<sup>33</sup> In a recent study on the possibility of predicting brand purchases based on psychophysiological reactions to a retailer television advertisement measured by EEG, EDA and eye-tracking,<sup>34</sup> it was confirmed that emotional arousal is a significant predictor of product choice. Research that builds on exploring ad-elicited emotional arousal<sup>35</sup> also confirms the importance of emotions. Results reveal greater amygdala activation in the superior temporal sulcus.

In this study, papers were selected that analyse the brand from the aspect of brand image and the role of emotions. These are related to neuromarketing, psychology and brand theory which are connected in a common interdisciplinary whole to provide a deeper insight into the field of brand image, equally from the aspects of semiotics, communication, neuroscience and neuromarketing.

### 3 Emotions and Consumers

Emotions, thoughts and the consumer's choice of brand are strongly connected. Brand loyalty in its essence derives from the brand attachment construct.<sup>36</sup> In a broader sense, the brand attachment construct can be distinguished from brand loyalty as opposed to brand love and brand devotion. Let us point out that the phrase brand love encompasses a deeper dimension of brand knowledge and understanding, and even individual knowledge that often culminates in the brand dedication construct. Some authors state that various factors of consumer attachment can also be manifested through perceived value, which indirectly affects brand trust and brand commitment.<sup>37</sup> In so many metaphors, the brand is still the most powerful metaphor that shows the brand as a 'living organism'.<sup>38</sup> Building brand identity elements is the beginning of creating an image. The symbol is formed by promotional messages, specific behaviour and visual elements.

The brand depends on the consumer's perception, emotion and experience. What makes it a 'living organism' is the totality of the very concept of the brand, its tangible and intangible values. In the context of brand theory,<sup>39</sup> these are elements of identity and consumer experience, while in the context of semiotics they

are associations, symbols and signs that represent a specific meaning to consumers. Since the construct of brand loyalty<sup>40</sup> and the construct of brand personality<sup>41</sup> start from the metaphor of the brand, it raises doubts about the rational behaviour of consumers and raises questions: Does the consumer buy a brand because of emotional components or rationally evaluate all aspects, what is the scientific link between emotion and brand buying and does the consumer have a choice or is it just an illusion?

Emotions have always been very difficult to define,<sup>42</sup> and most often dominates the understanding that emotions are caused by conscious or unconscious evaluation of a stimulus. We can conclude that emotions are felt as positive when a goal is achieved and as negative when goal achievement is prevented. However, the essence of emotion is readiness to act. In the context of neuromarketing,<sup>43</sup> consumer's positive emotions create positive impressions towards brands.<sup>44</sup> Understanding the emotional components of consumers allows us to analyse consumer behaviour. The brain consists of several parts or lobes (see Figure 1).

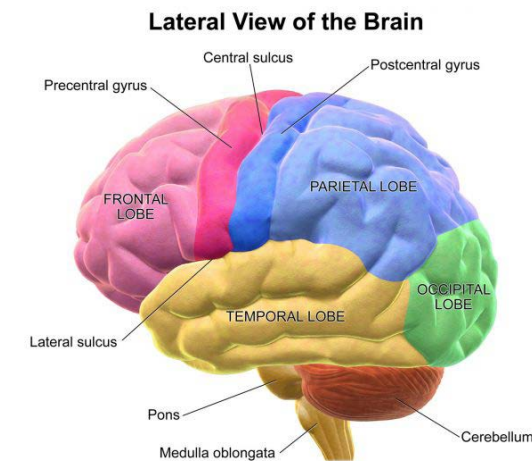


Figure 1: Lobes of the brain

Source: BADDELEY, A.: Working Memory. Released on 19<sup>th</sup> January 2017. [online]. [2022-03-03]. Available at: <http://serious-science.org/working-memory-7982>.

The frontal lobe is the largest lobe in the cortex and extends from the anterior to the central sulcus. The frontal lobe is involved in planning, reasoning, but also emotion control. The parietal lobe extends from the upper to the lower edge and is the most obvious structure that separates the parietal from the occipital lobe. *Sulcus calcarinus* divides the medial surface of the occipital lobe and marks the position of the primary visual cortex.<sup>45</sup> Below is the *gyrus cinguli*, an important formation of the limbic system that contains the cortical and subcortical structures of the frontal and temporal lobes that make up the medial ring of the cerebrum. The limbic system participates in experiencing and expressing emotions. Two particularly important components of the limbic system are the orbital and medial prefrontal cortex and amygdala.

These two telencephalon regions together with the associated structures in the thalamus, hypothalamus and ventral striatum are particularly important in the expression of emotions.<sup>46</sup> The amygdala is a complex

27 ZHU, Z. et al.: Bibliometric-Based Evaluation of the Neuromarketing Research Trend: 2010-2021. In *Frontiers in Psychology*, 2022, Vol. 13, Article No. 872468, p. 3.  
 28 LEE, N., CHAMBERLAIN, L., BRANDES, L.: Welcome to the Jungle! The Neuromarketing Literature through the Eyes of a Newcomer. In *European Journal of Marketing*, 2018, Vol. 52, No. 1-2, p. 4-7.  
 29 RAMPL, L. V. et al.: The Role of Emotions in Decision-Making on Employer Brands: Insights from Functional Magnetic Resonance Imaging (fMRI). In *Marketing Letters*, 2016, Vol. 27, No. 2, p. 366-369.  
 30 PLASSMANN, H. et al.: Consumer Neuroscience: Applications, Challenges, and Possible Solutions. In *Journal of Marketing Research*, 2015, Vol. 52, No. 4, p. 428-430.  
 31 CHAN, H., BOKSEM, M. A., SMIDTS, A.: Neural Profiling of Brands: Mapping Brand Image in Consumers' Brains with Visual Templates. In *Journal of Marketing Research*, 2018, Vol. 55, No. 4, p. 608-611.  
 32 JUKIĆ, D.: Opening Pandora's Box: Neuromarketing and Brand Image. In PAVEL, O. (ed.): *DOKBAT 2019 – 15<sup>th</sup> Annual International Bata Conference for Ph.D. Students and Young Researchers*. Zlín : Tomáš Baťa University, 2019, p. 517.  
 33 See: STRONGMAN, K. T.: *The Psychology of Emotion*. Chichester : John Wiley & Sons, 2003, p. 295; DAMASIO, A.: *Osjećaji zbitanja*. Zagreb : Algoritam, 2005, p. 172-175; BAGOZZI, R. P., LEE, N.: Philosophical Foundations of Neuroscience in Organizational Research: Functional and Nonfunctional Approaches. In *Organizational Research Methods*, 2019, Vol. 22, No. 1, p. 309-314.  
 34 GARCZAREK-BAK, U. et al.: A Comparative Analysis of Neuromarketing Methods for Brand Purchasing Predictions among Young Adults. In *Journal of Brand Management*, 2021, Vol. 28, No. 2, p. 179-181.  
 35 BAKALASH, T., RIEMER, H.: Exploring Ad-Elicited Emotional Arousal and Memory for the Ad Using fMRI. In *Journal of Advertising*, 2013, Vol. 42, No. 4, p. 281-287.  
 36 PARK, W. C., MACLNNIS, J. D., PRIESTER, J.: *Brand Attachment: Construct, Consequences and Causes*. Hannover : Now Publishers, 2008, p. 10.  
 37 DE CHERNATONY, L., MCDONALD, M.: *Creating Powerful Brands in Consumer, Service and Industrial Markets*. Oxford : Elsevier Butterworth Heinemann, 2003, p. 217-219.  
 38 KAPFERER, J. N.: *The New Strategic Brand Management*. London : Kogan Page, 2008, p. 12.  
 39 See also: AAKER, D. A.: *Managing Brand Equity*. New York : Free Press, 1991, p. 17; AAKER, D. A.: *Building Strong Brands*. New York : Free Press, 1996, p. 79; KAPFERER, J. N.: *The New Strategic Brand Management*. London : Kogan Page, 2008, p. 182-187; KELLER, K. L., AFÉRIA, T., GEORGEON, M.: *Strategic Brand Management: A European Perspective*. Harlow : Prentice Hall, 2008, p. 56-72.

40 AAKER, D. A.: *Managing Brand Equity*. New York : Free Press, 1991, p. 16-19.  
 41 AAKER, J.: Dimensions of Brand Personality. In *Journal of Marketing Research*, 1997, Vol. 34, No. 3, p. 352.  
 42 OATLEY, K., JENKINS, M. J.: *Razumijevanje emocija*. Jastrebarsko : Naklada Slap, 2003, p. 96.  
 43 HSU, M.: Neuromarketing: Inside the Mind of the Consumer. In *California Management Review*, 2017, Vol. 59, No. 4, p. 13-18.  
 44 JUKIĆ, D.: Opening Pandora's Box: Neuromarketing and Brand Image. In PAVEL, O. (ed.): *DOKBAT 2019 – 15<sup>th</sup> Annual International Bata Conference for Ph.D. Students and Young Researchers*. Zlín : Tomáš Baťa University, 2019, p. 517.  
 45 PURVES, D. et al.: *Neuroznanost*. Zagreb : Medicinska naklada, 2016, p. 731.  
 46 PURVES, D. et al.: *Neuroznanost*. Zagreb : Medicinska naklada, 2016, p. 653.

mass of grey matter embedded in the anteromedial portion of the temporal lobe, rostral to the hippocampus.<sup>47</sup> The amygdala connects cortical areas that process sensory information with the executive systems of the hypothalamus and brainstem. Thus, the amygdala is involved in processing sensory experiences that have emotional meaning for the consumer. The amygdala's role is not limited to making judgments about basic emotions but includes a role in making social judgments. It is generally believed that the amygdala is involved in automatically responding to emotionally striking stimuli.<sup>48</sup> The amygdala receives sensory input signals directly from certain thalamic nuclei, which means that many neurons in the amygdala respond to stimuli.

Parts of the prefrontal cortex are also involved in the organisation and planning of future behaviour, so the amygdala can make an emotional contribution to conscious and unconscious reflections. Motor cortical fields in the posterior frontal lobe give descending projections that are organised into medial and lateral components that act on voluntary somatic movements.<sup>49</sup> Functionally and anatomically different centres in the forebrain control the expression of motor functions that harmoniously mediate emotional reactions. Somatic and visceral activities associated with a unified emotional response are mediated by the joint activity of neurons that unite parallel descending impulses. Emotions are a multi-stage process.<sup>50</sup> Finally, it is very likely that the connections between the amygdala, neocortex and subcortical structures are responsible for the subjective sense of emotion. However, this means that feelings are a consequence of the cognitive capacity of self-awareness. Thus, we can conclude that feeling encompasses the consumer's conscious experience of implicit emotional experience, but also of explicit processing of semantic thoughts.

Emotions direct attention, create meaning, and have their own pathways of memory.<sup>51</sup> At the same time, emotions help reason to focus the mind and set priorities.<sup>52</sup> Discoveries in the field of emotions that have changed the way of thinking<sup>53</sup> can be presented as: a) anatomical pathways, b) brain substances and c) memory. The notion of anatomical pathways implies a 'tangible' reality that we can measure. This is, after all, the main reason for the sudden interest by neuromarketing in measuring brain activity. Brain substances have allowed us to better understand the very nature of emotions. And finally, the connection between these pathways and matter clarifies how the consumer remembers the elements of the brand.

Emotions are created in biological anatomical pathways.<sup>54</sup> They are not the same as feelings. Neuroscience separates emotions from feelings. Emotions are expressed by visceral motor changes. Emotional experience is closely related to the visceral motor system, which is inseparable from the structure of the central nervous system driven by preganglionic autonomic neurons in the brainstem and spinal cord.<sup>55</sup> The broad structure of the cortical and subcortical areas includes parts of the forebrain and diencephalon that affect the set of lower motor neurons responsible for somatic expression of emotional behaviour. From a neuroscientific aspect, the combined reaction of brain regions acts on the emotional motor system. This means that forebrain structures that process emotional signals participate in a variety of complex brain functions<sup>56</sup> that, from a neuromarketing aspect, involve attitude and behaviour towards brands.

In addition to the above, it is necessary to explain the cognitive aspect of affective neuroscience,<sup>57</sup> which emphasises the role of conscious and unconscious emotional processing. From such an aspect, cognitive contents (thoughts, attitudes and memories) represent stable and less changeable, and emotions represent something that is changeable and unstable. However, the rhythms of emotions in consumers are quite stable in

contrast to thoughts that are very unstable and changeable.<sup>58</sup> The paradox is even greater because emotional systems give a sense of stability to self-knowledge and consumer identity while the cognitive architecture of the mind disperses to different thoughts, attitudes, and expectations. This means that the stated affective tone is crucial when creating a brand image because it gives consistent stability of self-image while the cognitive-verbal system gives multidimensionality of self-image. Strong emotions are better remembered by the consumer than thoughts that pass through the conscious mind at every moment. To measure emotions in neuromarketing we can use information from medicine, such as the autonomic nervous system, the central nervous system, and the sensorimotor system. Table 1 shows the most common medical methods for measuring emotions that can be used in neuromarketing research.

Table 1: Emotion metrics in neuromarketing

Abbreviation	Method
BEAM	brain electrical activity mapping
BP	blood pressure
BR	breathing rates
EEG	electroencephalography
ECG	electrogastrogram
ERP	event-related potentials
FMRI	functional magnetic resonance imaging
MEG	magnetoencephalography
MT	muscle tension
PET	positron emission tomography
SCR	skin conductance response

Source: Own processing

As can be seen, to measure emotions from a neuroscientific aspect, we obtain information through the central nervous system, such as electrical activity of brain neurons, the autonomic nervous system such as heart rate or blood pressure, but also through the sensorimotor system by monitoring breathing or eye movements. Neuromarketing examines the response to a particular stimulus, which is placed in front of consumers and measures and records the reactions of the brain to that particular stimulus. We conclude that emotions are a motivational phenomenon, biologically programmed, partly genetically shaped and partly psychologically activated. Emotions give the consumer a quick response to various situations when shopping, so we can also say that emotions affect the distraction from unfavourable situations.

However, the role of unconscious emotions also needs to be emphasised. It is necessary to distinguish emotions from feelings.<sup>59</sup> Emotions do not depend on consciousness and emotional systems can produce emotions without consumers being unconscious. The emotion and awareness of emotions do not always have to be together. According to Damasio's hypothesis, emotion comes first, and only if it is intense enough, the consumer becomes aware of that feeling. But it is not just the emotion that decides whether it will occur or not, the key role is in the cognitive control of emotions. The Somatic Marker Hypothesis argues that decisions made in situations that may be potentially harmful or favourable, and like previous experiences, cause a physical reaction that characterises the outcome.<sup>60</sup> In this sense, we understand emotion as a state of a set of variables caused by a situation or thoughts.<sup>61</sup>

47 PRICE, J. L., RUSSCHEN, F. T., AMARAL, D. G.: The Limbic Region II: The Amygdaloid Complex. In BJÖRKLUND, A., HOKFELT, T. (eds.): *Handbook of Chemical Neuroanatomy, 5, Integrated Systems of the CNS, part I, Hypothalamus, Hippocampus, Amygdala, Retina*. Amsterdam : Elsevier, 1987, p. 279-284.

48 LEDOUX, J. E.: Emotion Circuits in the Brain. In *Annual Review of Neuroscience*, 2000, Vol. 23, No. 1, p. 155-184.

49 PURVES, D. et al.: *Neuroznanost*. Zagreb : Medicinska naklada, 2016, p. 651.

50 JUDAŠ, M., KOSTOVIĆ, I.: *Temelji neuroznanosti*. Zagreb : Medicinska dokumentacija, 1997, p. 402.

51 LEDOUX, J. E.: Emotion, Memory and the Brain. In *Scientific American*, 1994, Vol. 270, No. 6, p. 50-57.

52 DAMASIO, R. A.: *Descartes' Error*. New York : Avon Books, 1994, p. 52-55.

53 JENSEN, E.: *Poučavanje s mozgom na umu*. Zagreb : Educa, 2005, p. 91.

54 JENSEN, E.: *Poučavanje s mozgom na umu*. Zagreb : Educa, 2005, p. 92.

55 PURVES, D. et al.: *Neuroznanost*. Zagreb : Medicinska naklada, 2016, p. 645.

56 PURVES, D. et al.: *Neuroznanost*. Zagreb : Medicinska naklada, 2016, p. 645-646.

57 DOLCOS, F., JORDAN, A. D., DOLCOS, S.: Neural Correlates of Emotion-Cognition Interactions: A Review of Evidence from Brain Imaging Investigations. In *Journal of Cognitive Psychology*, 2011, Vol. 23, No. 6, p. 670.

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61 CAMERER, F. C., LOEWENSTEIN, G., PRELEC, D.: Neuroeconomics: Why Economics Needs Brains. In *The Scandinavian Journal of Economics*, 2004, Vol. 106, No. 3, p. 562-565.

The problem of consciousness is a combination of mental models, the so-called images of the object and sense of self-realisation.<sup>62</sup> Mental models (object images) are distinguished as objects that represent various entities here, specifically the brand, while images represent sensory modalities, specifically elements of the brand. These images convey different kinds of physical properties of the object, but also the emotional reaction of the consumer.<sup>63</sup> However, the problem of consciousness is the understanding that the brain creates neural models in its neural circuits and manages to transform them into explicit mental models (images). Damasio portrays the term “image” as a mental pattern.<sup>64</sup> Images may be conscious or unconscious. Unconscious images according to Damasio<sup>65</sup> are never directly available. Conscious images are only available in the first-person singular perspective (the consumer perceives the brand itself).

On the other hand, neural models are only available in the third-person singular perspective. This is so because we understand the concept of “consciousness” as a private phenomenon of the first person singular.<sup>66</sup> Emotions are an integral part of the process of logical thinking and decision-making.<sup>67</sup> The mental pattern is represented as imaginary images. The concept of “imaginary images” is intended to highlight the very associative, imagery and imagination of the brand image. Therefore, we can also interpret the mental pattern as a form of future creation of a brand image.<sup>68</sup> To better understand consumer emotions and thoughts, cognitive systems that are directly related to the brain must be explored.<sup>69</sup> The information received from the sensory apparatus activates an emotional circle that determines the value of the stimulus and suggests that something be done afterwards. This circle is activated only on the corresponding input excitation, and the detection takes place at the consumer automatically. Image therefore becomes one of the forms of consumer self-image, and self-image enables the confirmation of the emotional experience and the reaffirmation of the notion of self.

## 4 The Role of Communication and Brand

Communication involves of a sender, a receiver and a message. However, the fact is that there can be ‘noise’ in communication, and it is precisely this wrong code that disrupts communication.<sup>70</sup> Observing from the semiotic aspect of communication, the sender in the case of persuasive communication represents a certain side and imposes the understanding of that code on the receiver. Therefore, marketing communications represent the voice of the company and its brands; they are a means by which the corporate can establish a dialogue and build a relationship with consumers.<sup>71</sup>

For example, the social-symbolic meanings of brands can be used to communicate to other people the kind of person we wish to be seen as. The self-symbolic meaning of brands is what their usage communicates to us about who we are or want to be.<sup>72</sup> Semiotics plays a central role in much of the newer challenging theory

of consumer behaviour.<sup>73</sup> A consumer does not make consumption choices from products’ utilities, which is what they do, but also from their symbolic meanings.<sup>74</sup>

From the aspect of culture, media literacy and communications, the term that Gáliková Tolnaiová uses in her study as *homo medialis*<sup>75</sup> exposes the media production of consumers who are subject to communication, the creation of myths that Barthes also talks about,<sup>76</sup> and can be applied in the context of brand semiotics. Baudrillard speaks very similarly, stating how modern consumers receive information without verifying it.<sup>77</sup> The role of the brand as a particular simulation of reality, as a simulacrum,<sup>78</sup> opens the space to the creation of consumer desires. Koszembar-Wiklik talks about manipulation in communication from the aspect of marketing,<sup>79</sup> claiming that in advertising, marketing uses taboo topics in a provocative way to attract attention and thereby create brand resonance.<sup>80</sup> However, such advertising functions as a mirror that reflects reality, but also shapes it.<sup>81</sup>

Language is an ideal example of the most powerful source of symbolic meaning. In the process of communication, it can have three meanings: a) denotative meaning, b) connotative meaning and c) the function of a label.<sup>82</sup> In linguistics, denotative meaning represents an extra-linguistic object to which a linguistic expression refers, such as the term “mother”, but it can also have a connotative meaning (subjective term) that has associations with care, love, and kindness. This also means that the connotative meaning in the process of communication can be understood as a kind of ‘meaningful migration’ where the term “mother” can represent a symbol of kindness, sacrifice and love that we use in marketing communication in the context of the function of the label. Exactly this form of marketing communication is manifested in branding, where emotional connections are combined with brand associations, impressions and metaphors. In this sense, the function of brand language can also be understood as an expressive function in which communication focuses on the sender, and its goal is direct expression (transmission of brand identity) to the consumer.

In this way, a certain impression of emotion is created, which is a supporting element of the referential function that Kapferer presents as a communication channel of the brand.<sup>83</sup> In this sense, an image is a synthesis made by the public of all the various brand messages. Brand image is on the receiver’s side. The image refers to the way in which these groups decode all the signals emanating from the products and communication covered by the brand. However, apart from language as a literal form of communication, the language of symbols is extremely important for encoding and decoding a brand’s message. For example, the denotational level of the brand can also be applied in the field of digital games<sup>84</sup> where certain brands can be decoded as mythic structures (connotations and associations) of specific meaning, where the concept of “parenthood” is associated with the digital game *Heavy Rain*, or where the concept of “freedom” is associated with the archetype of the brand.<sup>85</sup> Brand archetypes show what patterns of buying behaviour are. Archetypal identity is responsible for creating emotions and empathy in consumers towards brands. Consumers do not react to the product but to the brand, to the sign that the brand represents.<sup>86</sup> These can be archaic, unconscious and irrational, but also emotional, aesthetic<sup>87</sup> and status signs.

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63 JUKIĆ, D.: Opening Pandora’s Box: Neuromarketing and Brand Image. In PAVEL, O. (ed.): *DOKBAT 2019 – 15<sup>th</sup> Annual International Bata Conference for Ph.D. Students and Young Researchers*. Zlín : Tomáš Baťa University, 2019, p. 515.

64 DAMASIO, A.: *Ošjećaj zbiranja*. Zagreb : Algoritam, 2005, p. 307.

65 DAMASIO, A.: *Ošjećaj zbiranja*. Zagreb : Algoritam, 2005, p. 308.

66 DAMASIO, A.: *Ošjećaj zbiranja*. Zagreb : Algoritam, 2005, p. 25.

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69 See: DAMASIO, R. A.: *Descartes’ Error*. New York : Avon Books, 1994, p. 52-55; DAMASIO, A.: The Somatic Marker Hypothesis and the Possible Functions of the Prefrontal Cortex. In *Philosophical Transactions of the Royal Society of London (Series B)*, 1996, Vol. 351, No. 1346, p. 1414-1416; DAMASIO, A.: *Ošjećaj zbiranja*. Zagreb : Algoritam, 2005, p. 305-309; LEDOUX, J. E.: Emotion, Memory and the Brain. In *Scientific American*, 1994, Vol. 270, No. 6, p. 50-57; LEDOUX, J. E.: Emotion Circuits in the Brain. In *Annual Review of Neuroscience*, 2000, Vol. 23, No. 1, p. 155-184.

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73 SOLOMON, R. M. et al.: *Consumer Behaviour: A European Perspective*. London : Prentice Hall, 2009, p. 136.

74 ROSENBAUM-ELLIOTT, R., PERCY, L., PERVAN, S.: *Strategic Brand Management*. Oxford : Oxford University Press, 2007, p. 48.

75 GÁLIKOVÁ TOLNAIOVÁ, S.: Media and Truth in the Perspective of the Practice and Life Form of the Modern “Homo Medialis”. In *Communication Today*, 2019, Vol. 10, No. 1, p. 6.

76 BARTHES, R.: *Mitologije*. Zagreb : Pelago, 2009, p. 143-150.

77 BAUDRILLARD, J.: *Symbolic Exchange and Death*. London : Sage, 2017, p. 28.

78 BAUDRILLARD, J.: *Simulacra and Simulation*. Michigan : University of Michigan Press, 2017, p. 121-129.

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81 ROUBAL, O.: Sociology of Branding: “Just Do It” in the “No Limits” World. In *Communication Today*, 2017, Vol. 8, No. 1, p. 46-47.

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## 5 Image as a Reflection of Emotion

The starting point of analysing the brand image can be observed from two aspects: content and consumer aspect. If we start from the content aspect, then we distinguish the corporate image from the brand image. However, both images have the same centre, so the consumer aspect is more important. From the consumer's point of view, the image can be viewed in the context of the theory of image.<sup>88</sup> The personal structure of self-image can interact with external factors, leading to changes in lifestyle and values. The key difference in the approach to the concept of one's own image is that consumers represent themselves, i.e., they give an image of themselves as a basis for neuromarketing strategies.

Emotional experience is closely related to the visceral motor system. The broad structure of the cortical and subcortical areas includes parts of the forebrain and diencephalon that affect the set of lower motor neurons responsible for somatic expression of emotional behaviour. The consumer remembers strong emotions better, they are motivationally programmed. The problem of consciousness is a combination of mental models, the so-called images of the object and the sense of self-realisation.<sup>89</sup> Emotions give the consumer a quick response to various situations during the purchase and do not depend on consciousness, while emotional systems can produce emotions without the consumers being aware of them. As noted above, Damasio portrays the term "image" as a mental pattern, conscious or unconscious.<sup>90</sup> The fact is that the consumer is exposed to countless stimuli on a daily basis, but only some of them remain in the consciousness.

The preconscious is made up of facts that we are not currently aware of, but can become conscious at any time, such as remembering one of the elements of brand identity; for example, colour, shape or slogan. The unconscious is, therefore, a storehouse of desires, feelings and ideas. The process by which something becomes conscious is related to the perception that the sense organs receive from the outside world. From a medical aspect, this phenomenon is in the cortex, and from a psychological aspect in the ego. This assessment is performed by the amygdala in the orbitofrontal cortex. The amygdala and orbitofrontal cortex are tightly connected to the cortical sensory motor regions as well as the subcortical limbic system and brainstem, and at the same time transmit information to the hypothalamus which, through the endocrine and autonomic nervous and musculoskeletal systems, converts messages into bodily responses.

The prefrontal cortical region can be understood as the centre of the ego that takes control of all cortical regions. Thus, perception with a strong echo in the amygdala tends to achieve a strong echo in the associative neocortex as well. From a psychological point of view, when such contents of a brand image are recalled, recollection takes place quickly. Unconscious activities involve the automatic selection of emotional behaviour that is adapted to a given situation. In contrast, conscious reactions are intentional because they involve the effort of the consumer to make a purchase.

From a psychological point of view, emotions are ultimately multidimensional and exist as subjective, biological, purposeful and social.<sup>91</sup> Each of these four dimensions of emotion corresponds to a different aspect of emotion. Therefore, the 'emotional' aspect of emotions has its basis in cognitive processes.<sup>92</sup> The bodily response component involves biological and physiological activation that involves the activation of the autonomic and hormonal systems as they prepare and regulate adaptive behaviour dealing with emotions. The socially expressive component is the communicative aspect of emotions. Therefore, emotions from a psychological aspect include the complete consumer, feelings, physical activation, intention and nonverbal communication.

Emotions are related to consumers in two ways. In the first way, in neuromarketing, we can look at them as motives. Emotions are the drivers<sup>93</sup> and they direct consumers to certain actions. Let us compare two opposing emotions: anger and joy. Anger as the most passionate emotion<sup>94</sup> is also a ubiquitous emotion. Anger arises from impediment, if the consumer cannot obtain their favourite brand or if it is not currently in the store. Also, anger stems from betrayed trust as is the case when a brand does not deliver on a promise. The essence of anger is that the consumer believes that the situation they are in is not what it should be. Anger mobilises subjective, physiological, muscular and hormonal resources to achieve a specific goal.

Another way of connecting emotions with consumers refers to, conditionally speaking, the present system of manifestation that shows how well the personal adjustment of consumers is going. Thus, for example, joy signals social inclusion and progress. If we compare the emotion of joy, these are events that involve positive outcomes such as personal achievement, pleasure, success, or happiness. When the consumer is joyful, they feel elated and communicative. The function of joy is twofold.<sup>95</sup> Joy facilitates involvement in social activities and connects, it is a positive feeling that makes life pleasant and reduces social frustrations, disappointments and generally all negative feelings.

From this aspect, self-image is the most important internal determinant of the lifestyle of every consumer, because through self-image, attitudes, perceptions, motives, emotional and rational impressions and self-evaluation are manifested. Consumer self-image suggests that consumers very often buy brands that they believe will bring them closer to an ideal personal and social image (Figure 2). Precisely because of the above, consumer self-image becomes crucial in brand creation, brand loyalty and marketing.

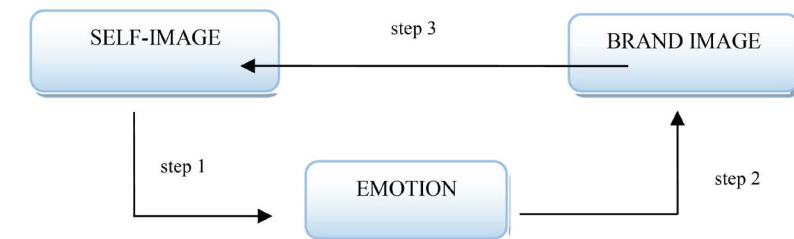


Figure 2: The connection between self-image, emotion and brand image

Source: Own processing

Permanent self-images are projected by consumers through brands that match their perception of their self. This means that if the brand image matches the image of the consumer, a precondition for brand loyalty is created. Consumers tend to reflect their self-image through brands. Buying brands is an extension of a consumer's self-image. Comparing them with the Customer-Based Brand Equity model<sup>96</sup> by which the consumer achieves self-image must have a strong identity, meaning and relationship. A strong identity means that all the criteria of the identity elements must be clearly satisfied, and such a brand must be visible when used. Then, the meaning of the brand implies all the performance and images of the brand, and even the reputation that will set the consumer apart by a certain status symbol. And finally, the echo of the brand represents the very top of the pyramid of Keller's model that alludes to personified value. Of course, the purchase of such a brand confirms the consumer's emotional impressions because the purchase is based on use or added value.

Therefore, self-image is extremely important because the consumer has a strong tendency to choose a brand that is in line with their image and brand image. The brand therefore becomes a consumer image that communicates on a symbolic level, and at the same time represents an active image of the consumer's

Vol 5, No. 2, p. 49-51.

88 KESIĆ, T.: *Ponašanje potrošača*. Zagreb : Opinio, 2006, p. 198.

89 DAMASIO, A.: *Osjecāj z bivanja*. Zagreb : Algoritam, 2005, p. 22.

90 DAMASIO, A.: *Osjecāj z bivanja*. Zagreb : Algoritam, 2005, p. 307.

91 IZARD, C. E.: Four Systems for Emotion Activation: Cognitive and Noncognitive Development. In *Psychological Review*, 1993, Vol. 100, No. 1, p. 82-84.

92 IZARD, C. E.: Basic Emotions, Natural Kinds, Emotion Schemas, and a New Paradigm. In *Perspectives on Psychological Science*, 2007, Vol. 2, No. 3, p. 273.

93 Compare to: LEDOUX, J. E.: Emotion, Memory and the Brain. In *Scientific American*, 1994, Vol. 270, No. 6, p. 50-54; LEDOUX J.: The Emotional Brain, Fear, and the Amygdala. In *Cellular and Molecular Neurobiology*, 2003, Vol. 23, No. 4-5, p. 727-730; TURNER, J. H., STETS, J. E.: *Sociologija emocija*. Zagreb : Jesenski i Turk, 2011, p. 21-34.

94 REEVE, J.: *Razumijevanje motivacije i emocija*. Jastrebarsko : Naklada Slap, 2010, p. 315.

95 REEVE, J.: *Razumijevanje motivacije i emocija*. Jastrebarsko : Naklada Slap, 2010, p. 317.

96 KELLER, L. K.: *Strategic Brand Management*. Harlow : Pearson, 2013, p. 109.

self-image that is in harmony and positively correlated with loyalty to brands. Consumers who have high self-esteem tend to spend more on brands that are in line with their self-image, because self-esteem is the consumer's self-evaluation that reflects their attitude.

Let us now compare the biological and cognitive aspects of the emotions of brand image perception in neuromarketing. The key question is: does physiological arousal cause emotion activation or just follow it? If arousal causes emotions, then research into physiological arousal becomes the basis for further understanding of emotions. However, if arousal follows an emotion, then it is not vital to the onset of the emotion. According to contemporary research, physiological arousal monitors and regulates emotions.<sup>97</sup> The role of the autonomic nervous system is in creating optimal biological conditions to provide effective support for adaptive behaviour. Different emotions are activated at different rates of cortical activity in the consumer's brain.

However, this brings us to another question: if emotions are largely a biological phenomenon managed by subcortical structures, does this mean that most emotions are not subject to voluntary control? If emotions are a cognitive phenomenon driven by thoughts, does that mean the consumer can control emotions? Emotions arise from process information, social interactions and cultural context.<sup>98</sup> The central construct in the cognitive understanding of emotions is the assessment, i.e., whether an event is important to the consumer. Estimates precede and evoke emotion. The amygdala is the focal centre in the brain that assesses the emotional importance of sensory stimuli.<sup>99</sup> Thus, consumers rate stimulus events as positive or negative. When the consumer chooses a certain course of behaviour (buying brand), hippocampal brain circuit activates the motor cortex.

Consumers choose products that are consistent with their self-images and reject those that disagree. Since the purchased product influences the formation of the image of the consumer,<sup>100</sup> the stated hypothesis serves as one of the roles of consumer impressions. However, the notion of "self-image" can also be viewed from the aspect of consumer lifestyles, since self-image is understood as the totality of consumer thoughts, emotions and values directed addressed to itself as an object. Self-image, since it is a perceptual category, does not necessarily have to be realistic, just as brand images are not indicators of the real value of a brand. This means that consumers evaluate their experiences in relation to self-image, but also in relation to brand experiences.

Ultimately, according to the Somatic Marker Hypothesis, it is argued that decisions made in situations that may be potentially harmful or beneficial to the consumer cause a bodily reaction that characterises the outcome.<sup>101</sup> Thus, emotion, according to Damasio, is a set of variables caused by a situation or thought.<sup>102</sup> We can best portray these situations in the context of brand identity elements, the moment when the consumer reacts to brand characteristics, or in associations to brand awareness. Such associations of emotional experience with mental images are consumer feelings that neuromarketing very easily captures by the methods shown in Table 1. The flow of information from the periphery to the brain about the state of all parts of the body is constant and in constant change due to emotional stimuli. Simply said, consumer feelings can be understood as a lasting memory of emotions towards brands.

## 6 Conclusion

If we accept the hypothesis that consumer behaviour is reflected in social identity, the same brand can contribute to determining consumer perception. Consumers show brand attachment to the extent that they use that brand to maintain their own self-image.<sup>103</sup> Since consumers buy brands that represent them

on a symbolic level, i.e., they confirm their self-determination through these brands, they also show their consistency when buying. The model of a harmonised image of oneself implies that the consumer will choose a brand that corresponds to their view of self-image.<sup>104</sup> Here arises the paradox of identification and self-image. Does the consumer buy the brand to identify with the imaginary image because they are similar or does the consumer want to resemble the image?

Attitudes, perceptions, motives, emotional and rational impressions and self-evaluation are manifested through consumer self-perception. Consumer behaviour that would enhance one's own self-image has its roots in the pursuit of self-actualisation, social recognition or belonging. Thus, consumer self-image suggests that consumers very often buy brands that they believe will bring them closer to an ideal personal and social image. However, the image is based on this imaginary picture that the consumer experiences take place on an emotional level. The image is the result of the communication process. It is a perceptual stimulus that forms a mental picture. The image of the object is formed only by thought processing. Brand image can be viewed as a picture, image or complex experience, that is, the structure of attitudes, experiences and beliefs towards a product or service. The notion of image is represented as a mental pattern.<sup>105</sup> These images convey different kinds of physical properties of the object, but also the emotional reaction of the consumer.

All consumer mental phenomena arise from the functioning of the brain and mind. When we analyse mental phenomena, from the neuroscientific aspect we speak of the brain, and from the psychological aspect, we speak of the mind. Total unconscious brain work can be called genetic unconscious.<sup>106</sup> The fundamental self is affective without which there would be no autobiographical self nor could the mind system function.<sup>107</sup> The brain cannot produce the phenomenon of consciousness without the body. So neuromarketing explores the consumer's brain, i.e., the reaction to stimuli, but that is just one part that shows the brand image. The second part refers to the psychological aspect, to the feelings that affect the primary emotions, and together they build social emotions and cognition.<sup>108</sup>

Images or fragments that consumers have according to brands are sketches for provoking emotional reactions. These reactions include experiencing bodily reactions related to emotions. It is these physical changes that are physical indicators that can be measured in neuromarketing. Thus, emotions can be understood as a reflection of a physical indicator, and feelings as mental indicators. Emotions, therefore, precede feelings. Feeling encompasses the instant conscious experience of implicit emotional processing, which comes from the circle of the amygdala and the neocortex as well as the explicit processing of semantic thoughts. Feelings are the conscious part of emotions, the aspect that permits flexibility.<sup>109</sup> In simpler terms, we can think of emotions as the result of working memory that contains neural activity, which is related to the processing of emotional experiences.<sup>110</sup>

Consumer self-image, as well as brand image, are complex structures. They consist of various features that we have observed from the aspect of the content of the message. It is a symbolic aspect that starts from branding. Abstract consumption code distinguishes objects as signs. Buying a brand signifies high consumer involvement because it reflects the consumer's self-image. Thus, the image becomes an experienced perception to which the consumer reacts emotionally. This also means that emotions arise from process information.

In order to organise experiences and behaviour, emotions are needed as valences<sup>111</sup> and in this way emotions become signposts of consumer behaviour and actions. Emotions provide a quick response to marketing stimuli. But according to Damasio's hypothesis, not only are emotions separated from

97 See: REEVE, J.: *Razumijevanje motivacije i emocija*. Jastrebarsko : Naklada Slap, 2010, p. 335; DAMASIO, A.: *Osjecaj zbiljanja*. Zagreb : Algoritam, 2005, p. 308.

98 TURNER, J. H., STETS, J. E.: *Sociologija emocija*. Zagreb : Jesenski i Turk, 2011, p. 21-46.

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104 SOLOMON, R. M. et al.: *Consumer Behaviour: A European Perspective*. London : Prentice Hall, 2009, p. 151.

105 DAMASIO, A.: *Osjecaj zbiljanja*. Zagreb : Algoritam, 2005, p. 307.

106 DAMASIO, A.: *Osjecaj zbiljanja*. Zagreb : Algoritam, 2005, p. 162-228.

107 DAMASIO, A.: *Osjecaj zbiljanja*. Zagreb : Algoritam, 2005, p. 172-175.

108 ČORLUKIĆ, M.: *Neuropsihološka analiza*. Zagreb : Medicinska naklada, 2018, p. 28.

109 STRONGMAN, K. T.: *The Psychology of Emotion*. Chichester : John Wiley & Sons, 2003, p. 295.

110 JUKIĆ, D.: Opening Pandora's Box: Neuromarketing and Brand Image. In PAVEL, O. (ed.): *DOKBAT 2019 – 15<sup>th</sup> Annual International Bata Conference for Ph.D. Students and Young Researchers*. Zlín : Tomáš Baťa University, 2019, p. 518.

111 ČORLUKIĆ, M.: *Psihoterapija kao izazov umu*. Zagreb : Medicinska naklada, 2014, p. 53.

consciousness, but also from feelings. Emotion and the feeling of emotion do not necessarily have to be together. Also, emotions are not just a reaction; they are a powerful motivating factor even when consumers are not aware of them, even when they believe in an imaginary image built on the elements of the brand. The elements of the brand form the identity, and at its core it starts from deeply interwoven emotional features, metaphors and symbols.

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