FROM COGNITIVE ARCHITECTURE OF ZOOMORPHIC NEUROIMAGING TO NEUROMARKETING

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Abstract. This article investigates a common goal of neuroimaging how to identify the cognitive processes that are engaged when neuroagent performs a decision task. The symbol modeling of cognitive neuropsychological of agency by means of semantic analysis is outlined. Theoretical background of zoomorphism is tested via semantic mapping of reality, zoomorphic virtual characters, and automated intelligent agents in the neuromarketing sphere of cognitive architecture.

Key words: neuroimaging, cognitive architecture, social actor, semantics, neuromarketing.

Introduction

As a senior point of vital importance to future globalization, young professionals have to develop their knowledge and skills to meet and exceed the competitive challenge of neuromarketing. The neuromarketing targeted mind technology developed market to a new dimension. It is originated from cognitive and sensomotor response to marketing stimuli.

From this relatively modest beginning, the concept “neuromarketing” began to evolve rapidly in terms of cognitive architecture, social actor, cognitive system [3, p.89]. There are now two models of neuromarketing principles, based on different market emphases: human connectome and human cognitome [2, p.12].

The first approach is based mostly on the original ‘connective’ distributed neuron learning model. Causal relations between mental and physical properties are typically developed and led by the “connections of brain regions together with “hubs” that connect signals among different brain area” [1, p.56]. Examples include water molecules move along nerve fibers.

Thinking that is based on a format of network, multilayer structure, with a subject recording content and multiple choice strategies named cog (Cognitive Group)

and programming decisions for the consumers. The aim of this neuroimaging approach is to allow the connectome platform to run the same information throughout a working memory repeatedly.

The term "cognitive architecture" is defined as "a computational framework designed for intelligent agents" [5, p.350]. Social actor is a cognitive system embedded in a physical or virtual environment, which can perceive information and perform actions to satisfy its needs [9, p.280]. Supercharged dynamical system whose elements are functionally related to the semantics of processed information (in this case, zoomorphic identity of human beings) is nominated as a cognitive system. Diversity of cognitive architecture types is more likely to be achieved through hierarchy. On metacognitive level agent is capable of modeling mental states of consumers based on a zoomorphic content. Reflective architecture type models elaborate the behavior of virtual entities and environment internally. Proactive architecture type plans, explores and decides activities of the agent. Adaptive architecture type is low sub-cognitive form of learning. The lowest cognitive architecture type is pre-programmed behavioral response.

Model-Based Approaches

The approaches to decoding described above cognitive functions between mental states and neuroimaging patterns as a key problem were discussed globally and regionally in cognitive neuroscience. The biological method is reverse inference. Neuroimaging data provide information regarding the pattern of activity of the mental process [11, p.45]. A new MRI technique called diffusion spectrum imaging (DSI) shows a brain's major neuron pathways and will help neuromarketologs relate structure to function. Psycholinguists investigate symbolic dynamics of languages and their impact on social behavior. In neuromarketing the desire to "read minds is strong". Lindstrom used DSI data to confirm that people are in love with their iPhones [12].

An alternative approach has been developed recently by Anokhin, in which the decoding of brain activation patterns is guided by hypernet theory model of the mental processes that underlie the "transparent brain" function of human cognitome. The new term "cognitome" has a multilayer's structure that permits to put the next research questions: coding of cogs as neuron cognitive groups, stimulating and development of cogs during the learning process, and correlation between mind, brain and artificial intelligence.

Dulleck uses a model that identified semantic features based on correlations between cognitive map and semantic map in a very large corpus of text. By using "strong semantic map" approach that reflect the activation associated with a semantic feature predicted activation map.

Another study published by J.Kable examined the ability to classify visual

images based on natural data from the visual cortices. The study estimates a receptive field model for each voxel, which modeled a voxel's response for orientation dimensions. The model is highly accurate in reflecting neuroimaging to concept meaning and from meaning to action. Our imaging research is based on reverse interference model. We define 3 stages of zoomorphic sign formulation. The first one is perception of object. The second point is attribution of functional meaning to object. The next piece of activity is nomination of object by means of cultural environment.

Current Perspectives of Zoomorphic Imaging in Neuromarketing

This year brings functional imaging to neuromarketing. The biofurry organization has motivated a new class of questions and methodological approaches. Mental transformation of human being into ambivalent animal-like creature is a matter of cognitive architecture task. The main question of our study is how distributed brain regions interact during performance a decision task, as characterized in terms above. To measure brain activity associated with discrete states of mind we use semantic mapping strong approaches such as semantic nets and conceptual graphs [6, p.120]. The example of semantic net is given below.

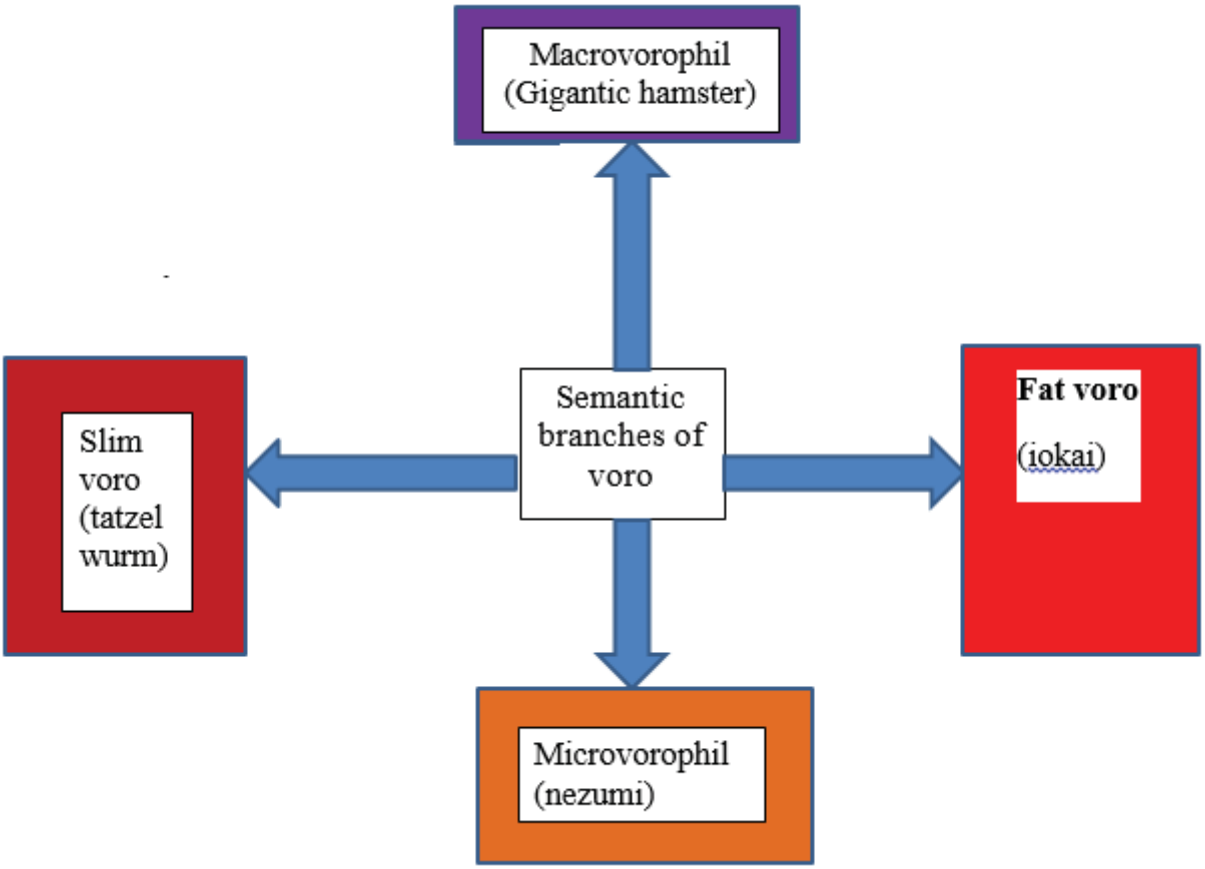

Fig. 1 Semantic net of vorophilia

The neuromarketing raises interest rates in terms of perception and action. Sensorimotor memory interfaces with zoomorphic objects and drives them to semantic memory which forms narrative influencing value system. Narrative intelligence of neuromarketing presupposes IPOCL schedule [7, p.18].

The first parameter is intent planning. It includes goal selection. The second point is plan resolution. It is on balance equivalent. Then we consider operator solution. In conclusion neurons arrange frame discovery, and language invocation. What links these items in narrative fabula. Fursona plays on the screen, a child decides a strategy – furry means pleasant, plays the computer game, calls a friend, buys a folkmanis (special clothes), and goes to furmeet (meeting of members of this subculture). Fursonas act as emotionally intelligent personal agents.

This raises the question of what role the sensory areas of the brain play in translating significant visual configurations into a positive emotion, and then stimulus to reaction (purchase a fursuit). Whether stimuli such as anthropomorphic features are perceived as funny (microvoro and slim voro) or monstrous (macrovoro, fat voro), they activate common areas critical for the perception of “funny” or “monstrous”. These two types of fursonas activate the common areas differentially, leading to different outputs from them. The question of neuromarketing is resolved into the pattern of activity (shopping of symbolic items).

Conclusion

As a result of chosen perspective we analyzed the typical cognitive architecture of zoomorphic neuroimages for triggering neuromarketing strategy. This cognitive architecture is part of the abstract cognitive system. Relations between cortical impulses and image characterize meaning structures in terms of social actor, semantics, and behavior.

We tested experimentally frame questions regarding IPOCL schedule regarding cognitive architecture of human activity. Scientific preoccupation of mind monetization is a variant of the neurobiological question of how the separate cogs are integrated in the mind to give us a unitary hypernetwork. Give a semantic net database to obtain estimates of activation and base rate for one particular reverse inference (that activation of Broca’s area implied engagement of language function). For example, if neuromarketolog started with IPOCL scenario, activation in Broca’s area increased the likelihood of reward (shopping) by a Bayes factor of 8, which is considered strong [Bar,2014,p.49]. A challenge to the use of decoding to perform reverse inference is that it is based on semantic map, the organization of which fundamentally limited the accuracy of mental functions research.

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