Introduction

This paper presents a corpus based research on the conceptualization of emotional category FEAR in Croatian language from the perspective of cognitive science and demonstrates the embodied basis of cognition, categorization and communication of the emotional categories. In accordance with the recent cognitive theories of emotion (Russell and Barrett-Feldman 1999; Damasio 1999), structuring of emotional categories/concepts is analyzed as emerging from the neuropsychological processes functioning to provide awareness of the core affect (Fig. 1a). From the core affect emerge prototypical emotional episodes that are categorized (Fig. 1b) and expressed in linguistic symbolic structures (Fig. 1c).

This approach suggests that phenomena of the core affect, prototypical categories and linguistic symbolic structures form an emergent emotional system with bottom-up and top-down causal relations of perception, representation, reaction, expression and simulation of the emotional experience.

Considering the subjective nature of the emotional experience and the epistemological problem of enmascusurability (Third-Person Perspective has no access to mental states), the study of symbolic communication of emotions indicates the unattainable ground for the objective categorization of emotions and the need for an embodied Cognitive Model of Conceptualization of emotional category FEAR constructed in relation to the physiological processes of perception, representation and reaction.

Purpose of the research is:

1. A) to qualitatively describe the network of embodied concepts and domains that structure the semantic network of emotional category FEAR in Croatian.

2. B) to quantify metonymic and metaphorical patterns indicating the level of cognitive entrenchment of linguistic constructions within a culture (as represented in a corpus).

Methodology

Purpose of the research is:

A) to qualitatively describe the network of embodied concepts and domains that structure the conceptualization, simulation and recreation of respective emotional affective experience categorized as FEAR in Croatian.

B) to quantify metonymic and metaphorical patterns indicating the level of cognitive entrenchment of linguistic constructions within a culture (as represented in a corpus).

1. a) Core affect with hedonic valence and arousal

2. b) Categorization of prototypical emotional episodes

3. c) Linguistic expression of symbolic structures

Figure 1. Emergent Emotional system: a) core affect, b) categorization and c) linguistic expression.

From the perspective of Cognitive Semantics, profiling of the embodied cognitive model via the mechanism of conceptual mapping is related to the theories of conceptual metonymy and conceptual metaphor. By virtue of metaphorical mappings and metonymical profiling the (embodied) meaning of the source domain A is projected onto the target domain B.

In the case of conceptualization of emotional categories/concepts, qualitatively most relevant are the events of cooccurring bodily reactions that induce features of core affect as a result of autonomic responses, facial and vocal expressions, startle response and voluntary or involuntary behavioral traits.

Example 1. Metaphorical pattern analysis of the target domain STRAH ‘FEAR’

The adjective [GREAT] and the verb [TO SEE] are tagged as source domains that form the metonymic and metaphoric construction of the lexical concept fear (Fig. 3).

The metaphorical pattern-analysis yielded a qualitative description of the embodied domains that structure and facilitate embodied simulation (horgan 2005) of semantic value in the discourse. The domains are schematically distributed according to the physiological processes of representation, perception and reaction (Fig. 3).

Figure 3. Embodied domains that facilitate conceptualization, simulation and recreation of emotional affective experience categorized as FEAR in Croatian.

The quantitative results of the metaphorical pattern analysis show that metonymic and metaphoric constructions profiling the embodied processes of representation and recreation comprised 15.2% of the 14,875 retrieved instances of the lemma strah.

Figure 4. Frequency of sensory domains conceptualizing fear via metonymic and metaphoric constructions.

Out of 14,875 instances of the lemma strah ‘fear’ 11,474 are derived from exteroceptive, interoceptive and proprioceptive domains (Fig. 4) via metonymical and metaphorical constructions while the profiling with the domains of the bodily parts involves 3.8% of the identified metaphorical patterns (Fig. 5).

Quantitative results indicate strong connection to the proprioceptive, somatosensory and visceral experience of freezing and flight reaction, coldness and negative hedonic valence.

In terms of bodily parts, heart, eyes and bones are most frequent domains representing respectively the 1st, 2nd and 3rd person linguistic construal perspective.

Frequency results are relative to:

a) metaphorical-pattern analysis

b) scope and selection of corpus data

c) specific language

Intercultural conceptual variations, structural linguistic variations?

Conclusion

Semantic value of an emotional lexical concept STRAH ‘fear’ is constructed from metonymic and metaphoric mappings forming a neural, conceptual and linguistic framework of cognitive domains and models that facilitate conceptualization, simulation and recreation of respective emotional affective experience.

Corpus-based studies of metonymic and metaphorical constructions, such as the presented study of the lexical concept of FEAR in Croatian language provides methodology and data for further cognitive research in conceptual organization, neural correlation, mental simulation, as well as for inter-cultural and cross-cultural studies of conceptualization of emotional categories.

References