

## Specifics of Frame Approach to Verb Semantics

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**Abstract:** Within the cognitive approach human language can be viewed as an integral part of a complicated system of cognition responsible for processing and storing information. The research is focused on the frames of consumption and gesticulation as accessed from their verbal representations in the English language. The study seeks to explore obligatory and optional components of the above mentioned frames. The analysis reveals the way in which components of the frame structure correlate with the propositional structure of the sentence as well as the way the implicit meanings are realized in speech. The research demonstrates the usefulness of frames in relating world knowledge and language structure.

**Key words:** Frame approach, verb semantics, consumption, gesticulation, obligatory

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### INTRODUCTION

Cognitive Linguistics as one of the world leading linguistic schools, develops the idea that a language reflects human experience of the world. It shows that a man's ability to use a language is closely related to other cognitive abilities such as categorization, perception and memory (Chilton, 2011).

To scientifically analyze and define the components of the consumption and gesticulation frames, we turn to the approach of Minsky (1975), according to whom objects and situations can be represented as sets of nodes, slots and slot-filling values. He defines frame as 'a data-structure for representing a stereotyped situation like being in a certain kind of living room or going to a child's birthday party. Attached to each frame are several kinds of information. Some of this information is about how to use the frame. Some is about what one can expect to happen next. Some is about what to do if these expectations are not confirmed. Orienting to the cognitive linguistic approach of frame semantics we refer to the definition of the term frame, developed by Fillmore (2006). It is 'any system of concepts related in such a way that to understand any one of them you have to understand the whole structure in which it fits system of categories structured in accordance with some motivating context'. Considering a significant amount of literature on frame semantics (Wendland, 2010; Sullivan, 2013; Hayes *et al.*, 2013), we share the opinion that a word evokes a certain frame, a conceptual structure and thus represents a category of experience.

Our research focuses on two frames, the frames of consumption and gesticulation as most relevant for daily human experience. The relation between the frames and

meanings of consumption and gesticulation verbs is 'the territory where the cognitive space of mind is contiguous with the linguistic mind, where the word opens the way to the concept where the semantic system of language is correlated to the cognitive structure of mind. The scope of 'meaning' is increasingly widened to eventually embrace the totality of human experience. Both semantics and psycholinguistics merge with cognitive linguistics studying concepts (Vinogradova, 2014).

### MATERIALS AND METHODS

**Main Part:** Semantic and syntactic properties of the consumption verbs are determined by the content of the consumption frame, consisting of a certain number of obligatory and optional components. The conceptual content of the frame contains information of two types: information which characterizes consumption as a physical action aimed at the satisfaction of some physiological needs; information which characterizes consumption as part of the social life of a person aimed at the satisfaction of his communicative, cultural and esthetic needs.

The consumption frame is a package of knowledge stored in the mind which allows us to understand many things about consumption. Thus, we can describe a typical situation of consumption as a frame with two obligatory nodes, consumer and consumed, each having its conceptual properties that can be realized in the meaning of consumption verbs. To the properties of consumer, we refer his age, his being human/nonhuman, his physical and psychic state. To the properties of consumed, we refer its texture, temperature, quantity, taste and some others. The relation between the two main

components of the frame is reflected by the action of consumption. It can also be characterized by some internal and external properties: speed, manner, tools (internal properties), place, time, simultaneity, result (external properties).

On the language level the conceptual content of the frame under study is revealed in the following verbs and verbal phrases with the meaning of food and drink consumption: attack, bite, breakfast, brunch, chew, clear, consume, crunch, cut, devour, dine, dinner, dive, do, down, drain, eat, empty, feast, feed, finish, fork, gnaw, gulp, have, knock, lap, lick, lunch, manage, munch, nibble, partake, pick, pig, pop, put, sample, savor, scoop, shove, shovel, snatch, soak, spear, spoon, start, suck, swallow, swig, take, taste, toss, touch, try, use, wash, wolf; verbal phrases with the verb have: have a meal, have a bite, have a snack, have breakfast, have dinner, have supper, have lunch, have a sip, have a drink; verbal phrases with the verb take: take a bite, take a munch, take a nibble, take a sip, take a drink, take a swallow, take a gulp, take a draught, take a mouthful, take a spoonful, take a swig.

The upper level nodes of consumer and consumed are obligatory and fixed for this frame and that helps to draw a line between the verbs reflecting the frame directly and some other verbs which may share one of the optional slots of the frame and thus seem related to the frame. For example, the verb feed in the meaning of 'giving food to somebody' will not enter the list of the frame representatives while in the meaning of 'eating about animals' (e.g., cows feed) it meets the requirements of the frame.

All the verbs and verbal phrases in the above lists activate the consumption frame differently. Some of them can be taken as 'the best representatives' of the frame, they reveal the idea of consumption in the best possible way. These are verbs like consume, eat and drink. These verbs don't need any other 'links' to the frame, they name the action of food or liquid consumption directly. The two obligatory components of the frame are embedded in the semantic structure of these verbs.

There are also verbs which activate the frame by way of focusing on one of the optional slots of the frame. Verbs like wolf (down), pig (down) focus on the manner of action performed by the consumer. The meaning here is based on the animalistic metaphor.

Lexical units focusing on the optional components of the frame can at the same time enter the structure of one or more other frames and even can be 'the best representatives' of those frames, for example, the verbs drain, empty, clear, referring to the emptying frame (FrameNet Corpus, 2014).

The focus on the rate of action is reflected in the meaning of such verbs as snatch, knock (back), down, toss. I knocked back half my drink in one go (Banville, 2001).

Tools of food consumption (a knife, a fork or a spoon) are reflected by such verbs as fork, spoon, spear and shovel. The latter too are based on the instrumental metaphor: Howe nodded and speared at some pasta (Bryson, 2001). I watched them shovel food down their throats as if it were fuel (French, 2001).

## **RESULTS AND DISCUSSION**

Vertex nodes of the gesticulation frame, being obligatory components, are formed by such concepts which are always required for the present situation. To obligatory components of the frame we refer: subject (a gesture performer), object, gesture semiotic meaning, gesture form.

Taking into consideration the fact, that the natural sphere of operation of gestures is direct communication between people, gesture performers can be only people. Sometimes the researchers replace a gesture performer by the reference to the part of the body involved in the execution of the gesture. For example: Brenna's small hands clenched into fists as a lady seated just behind her ventured a whispered comment to a friend about the merits of wrestling with Guyon (Seger, 1982).

Gesture in extra linguistic reality is observed and perceived by people as a single entity and can not be decomposed into components. In connection, with the necessity to separate consideration of each of the aspects of gesture (movement and semiotic meaning) in the structure of the frame we distinguish two very closely related to each other components: gesture semiotic meaning and gesture form. For information transmission subject should produce movements, having the same physical nature as conventional movements of a human body. On the linguistic level gesture form may be expressed by verbs with the system meaning 'gesticulation' as well as by verbs and verbal combinations, verbalizing the concept of 'body language' only on functional level.

Gesture, understood in this research as communicatively significant movement of the body, head, limbs, necessarily implies a particular tool of its performance. In most cases, gesture verbs contain in their semantics the indication of exactly which part of the body executes this or that gesture. For example, nod-bow (the head) slightly and quickly as a sign of agreement or as a familiar greeting. The exceptions are nominations of gestures, implying in their semantics different ways and

consequently, tools for performing gestures indication of tool, executing a gesture, contains as a rule verbal combinations. For example: clench one's fingers fists, touch with one's arm, shake hands, etc. The tool, performing a gesture, is expressed by the corresponding part of the body.

Gesture semiotic meaning is an abstract idea or emotion (in the case of symptomatic gesture) which the one who gesticulates deliberately or unwittingly brings to the recipient of the gesture. In the semantic structure of sentences describing gestures the frame component gesture semiotic meaning can be expressed either explicitly: She knew he'd noticed her he'd nodded once in her direction to signal he'd speak to her in a minute, she should wait (Miller, 1999); or implicitly: "Put that chain lock on your door before you go to sleep tonight, okay?" Nina nodded and the women disappeared. In this case, the kinema denoted by the verb nod is used to express agreement. The semantic structure of the verb 'nod' contains a symbolic sema "expression of agreement".

Abstract idea transmitted by a gesture can be understood from the context: "I want to change, though, Mums". "Why? You look perfectly all right. This is just a piano lesson, after all. Look at me". And she gestured down at her canvas skirt, her sandals, her old shirt (Miller, 1999).

**Object:** A person, who perceives the gesture as a sign. On the linguistic level object is expressed by noun or pronoun (often personal pronoun, sometimes relative, sometimes reflexive). In the semantic structure of sentences describing gestures, this component of the frame can be expressed either explicitly: "Come on" I nudged Gusmaro with my elbow "it's your turn" (Johnson, 1993) or implicitly: The audience applauded.

Often out of context, it is clear to whom the gesture is addressed and who perceives it: "Do you feel mad a lot of times?" He nodded but did not speak (Johnson, 1993). In this case, the gesture is the answer to the question and addressed to anyone who asks a question. Optional components of the frame are: adapter, subject indications, incentive.

Adapter-object of a gesture as a physical action. Following Kreidlin and Grigorieva (2001) under the adapters we understand material objects and sounds from them (including the human body and the sounds arising from manipulations with it), taking part in the communicative act. G. Kreydlin distinguishes two types of adapters: adapters-objects and adapters-body parts. For example, body-part adapters are present in gestures, denoted by the verb applaud (adapter body-part hands), verb combination shake hands (adapter body-part the

hand of the recipient). Adapters-objects are present in the gestures, denoted by verbal combinations such as take one's hat off, slam the door shut, touch the wood, etc.

Subject indications the object pointed to during execution of an index gesture. For example: Theo nodded at a chair. "Take a load off" (Lehane, 2002).

Incentive the cause of a particular emotional state (for example, action, event, object, phenomenon of reality, someone else's words, actions, thoughts, etc.), the consequence of which was the execution of symptomatic gestures. In the semantic structure of sentences describing the use of symptomatic gestures, this component of the frame can be expressed either explicitly: Her heart melted within her when she looked into his deep, friendly eyes and she shivered with delightful anguish when she considered his shining, russet hair (Maugham, 2000) or implicitly. Verbs, denoting symptomatic gestures, imply in their semantics emotions that reflect reactions of a person to certain phenomena of reality. From the context it may become apparent that caused the emotion and as a consequence, a symptomatic gesture. For example: "Will not your husband forgive you?" He said after a while. "I never asked him". Instinctively he clenched his hands. She saw him suppress the exclamation of annoyance which came to his lips.

## CONCLUSION

Our research covers the obligatory and optional components and features of the frames gesticulation and consumption but it is not the final structure of the frames. It can be supplemented by any clarifying attributes (characteristics gesture, circumstances and characteristics of its execution, etc.) in a particular situation due to opening of the border frame. Consisting of primitive universal concepts, consumption frame still has so much individual adjusting information that to obtain a complete picture of its language representation one has to turn to quantitative analyses.

Following Fischer (2010) and Glynn and Fischer (2010), we believe that further analysis of the ways the verbs and verbal phrases represent the frame structure, should be connected with the application of quantitative tools and corpus methods. 'With the development of quantitative tools to treat corpus data, the future looks bright linguists would dispute which method of data collection and analysis is best suited to answer a given research question. They would question the representativity of data instead of simply choosing a different example that better suits their hypothesis. Linguists would compare results gleaned from various

methods and only then, equipped with tested hypothesis would they advance theoretical debate' (Fischer, 2010).

#### REFERENCES

- Banville, J., 2001. *Eclipse. Some Signs of Wear and may have Some Markings on the inside.* Vintage, New York.
- Bryson, B., 2001. *Down Under.* Transworld Publisher Ltd.
- Chilton, P., 2011. *Language, Concepts and Eastern Europe: Some Analytical Tools from Cognitive Linguistics.* Oxford. [www.ceelbas.ac.uk/workshops/cognitive\\_linguistics\\_workshop/Paul\\_Chilton\\_Oxford\\_CEELBAS\\_workshop\\_ppp.pdf](http://www.ceelbas.ac.uk/workshops/cognitive_linguistics_workshop/Paul_Chilton_Oxford_CEELBAS_workshop_ppp.pdf).
- Fillmore, C., 2006. *Frame Semantics.* In the *Oxford Handbook of Cognitive Linguistics*, Geeraerts D., Cuyckens H. Oxford University Press, pp: 371-400.
- Fischer, K., 2010. *Quantitative Methods in Cognitive Semantics. Introduction to the Volume.* In *Quantitative Methods in Cognitive Semantics: Corpus-Driven Approaches.* Berlin, New York: Walter de Gruyter, pp: 43-59.
- French, N., 2001. *Beneath the Skin.* New York: Warner Books.
- Glynn, D. and K. Fischer, 2010. *Corpus-Driven Cognitive Semantics. Introduction to the Field.* In *Quantitative Methods in Cognitive Semantics: Corpus-Driven Approaches.* Berlin, New York: Walter de Gruyter, pp: 1-42.
- Hayes, S.C., D. Barnes-Holme and B. Roche, 2013. *Relational Frame Theory: A Post-Skinnerian Account of Human Language and Cognition.* Springer.
- Johnson, L., 1993. *Dangerous Minds.* New York: St. Martin's Paperbacks.
- Kreidlin, G.E. and S.A. Grigorieva, 2001. *Kinesics. A Dictionary of Russian Gestures.* Moscow, Vienna, pp: 1-42.
- Lehane, D., 2002. *Mystic River.* New York: Harper Torch.
- Maugham, W.S., 2000. *The Painted Veil.* Moscow: Manager.
- Miller, S., 1999. *Family Pictures.* New York: Harper Paperbacks.
- Minsky, M., 1975. *A Framework for Representing Knowledge.* In *The Psychology of Computer Vision.* New York: Winston P.H.
- Seeger, M., 1982. *Defiant Love.* New York: Pocket Books, a Simon and Schuster Division of Gulf and Western Corporation.
- Sullivan, K., 2013. *Frames and Constructions in Metaphoric Language.* John Benjamins Publishing.
- Vinogradova, S.A., 2014. *Cognitive Linguistics on Meaning and Concept.* In *Issues of Cognitive Linguistics*, 2: 50-56.
- Wendland, E.R., 2010. *Framing the Frames: A Theoretical Framework for the Cognitive Notion of "Frames of Reference".* *J. Translation*, 6 (1): 27-50.