

Structural Semantics

<http://www-rohan.sdsu.edu/~gawron/semantics>

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February 6, 2017

- 1 Reactions to Mentalism
- 2 Concluding Question

1 Reactions to Mentalism

2 Concluding Question

Saussure's Chess Game

Language is a system

As in a chess game: The values of the individual pieces and the moves they can make are matters of convention. (“the arbitrariness of the sign”). We do not need to describe the state of mind of the chess players to understand chess; the proper way to study of the game is to understand its rules and their consequences. We learn those consequences only comparing the possibilities for different kinds of pieces. (Value defined by opposition to their values)

Saussure's lexical networks

Intended to capture both formal relationships (homonymy French *chat* ('cat') v. *châs* ('eye of needle') and meaning relations *chat* and *maroufle* ('big fat tomcat'))

Inspiration for later lexical networks of Stratificational Grammar and Linguistic Theories like HPSG.

The irrelevance of psychology?

Needing a model of your opponent

“Writer Nate Silver suggests that a bug in Deep Blue’s software led to a seemingly random move (the 44th in the first game) which Kasparov misattributed to ‘superior intelligence’. Subsequently, Kasparov experienced a drop in performance due to anxiety in the following game.”
(Wikipedia entry on Deep Blue)

Chess constructions

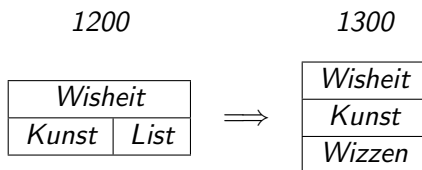
“After a scaled-down version of Deep Blue, Deep Blue Jr., played Grandmaster Joel Benjamin, Hsu and Campbell decided that Benjamin was the expert they were looking for to develop Deep Blue’s opening book, and Benjamin was signed by IBM Research to assist with the preparations for Deep Blue’s matches against Garry Kasparov.”

Die Bedeutungslehre: Ein Irrweg der Sprachwissenschaft? (Semantics: A False Trail in Linguistics?)

- 1 No psychologism: Meanings are **not** ideas, but elements in a system of oppositions, dependent of structure of a field of related words (Fodor: maybe that's what ideas are too!)
- 2 Synchronic study of a *system*
- 3 Onomasiological perspective: the field of related words defined via a content to form perspective. Different word senses may belong to different subsystems (*short*)
- 4 Kinship example; German *Onkel Tante* vs. *wuj, ciotka* (but Polish *stryj*, father's brother gets a special name), System of oppositions changes historically: German once more like Polish
- 5 Humboldt's *Innere Sprachform*: A conceptual layer with which we grasp the world somehow returns . . .

Trier: Semantic Fields

- 1 The mosaic: Language divides cognition up into a number of adjoining small areas (**fields**) within which subsystems of opposition are played out.



- 2 Note that the *social structure* is being emphasized. Emphasis on the social side of language. (Facts may be wrong!)
- 3 Examining the *system* crucial to getting the meaning changes right.
- 4 Lyons (conceptual vs lexical field)
- 5 Langacker, Fillmore (profiling): *hypotenuse*, *alimony*, *heretic*

Syntagmatic relations

Bring collocation and combinatorial restrictions into the lexical semantic analysis.

You shall know a word by the company it keeps. Different senses may have c
Firth (1957)

Developments: Fields versus components

- 1 Interactions of fields in one word (Duhacek 1959), p. 69, Fig. 2.7
- 2 A system of oppositions: Vagueness of word meanings (Gipper 1959)
- 3 Componential analysis: American ethnosemantics (Nida, Goodenough, Lounsbury): Give the components precise definitions, so they have independently of an “opposition”
- 4 Similar European componential tradition (Pottier, Greimas, Coseriu) Fig. 2.6, p. 76: Find the archilexeme and the distinctive semes (cf. Fodor and Katz), some consideration of collocation/syntagmatic relations, strict “opposition-based” definition of field, with accompanying cost in descriptive power

Relational semantics

The meaning of a word is to be characterized exclusively in terms of its paradigmatic relations with other words. (What computational approach to word meaning does this remind you of?) Definitions are related by an inheritance scheme.

Sense relations: *Synonymy, antonymy (including multiple opposition antonyms), hypernym, hyponym, meronym*

Exercise: What do we do with *hypotenuse*?

Outline

1 Reactions to Mentalism

2 Concluding Question

Is there a purely linguistic notion of definition?

“Is there a purely linguistic non-encyclopedic level of (semantic) structure?” —Geeaerts

Firth, John R. 1957.

A synopsis of linguistic theory, 1930-1955.