COGNITIVE CONCEPTS IN WORD-FORMATION

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Dr. Stela Manova

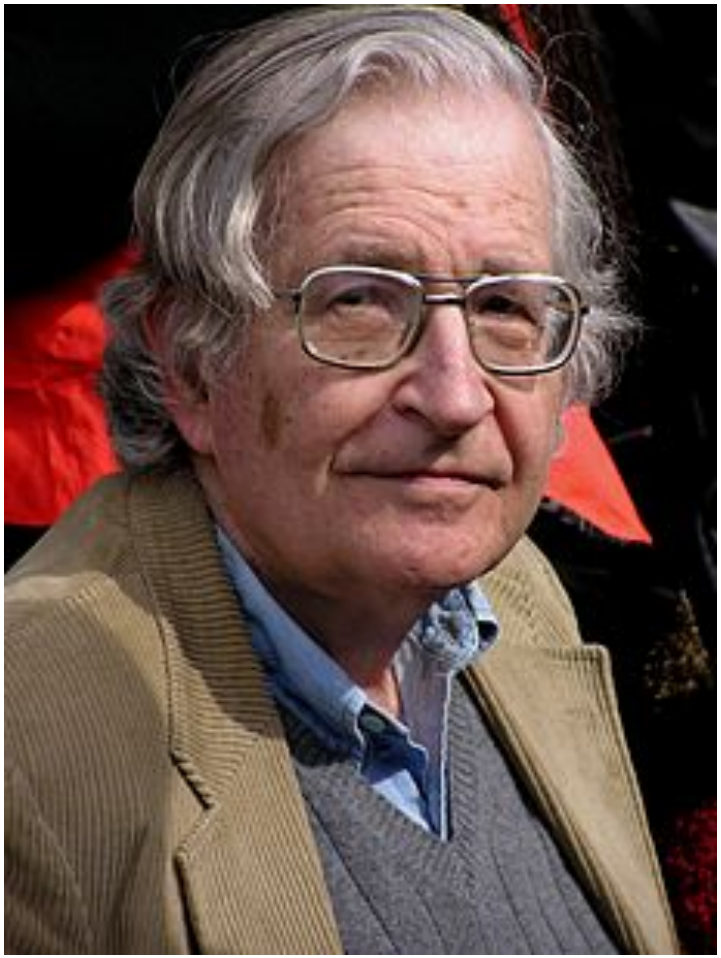
‘Cognitive’ in Linguistics

As regards the understanding of ‘cognitive’ in linguistics, there are two major research paradigms which follow contrary assumptions:

- Chomskyan Linguistics
- Cognitive Linguistics

Cognitive (usage-based) Linguistics has developed as a reaction against the Chomskyan (formal-theory-based) Linguistics.

Noam Chomsky, Prof. Emeritus MIT



- Syntactic structures
- Formal grammar
- Transformational rules
- Context-free grammar
- Generative grammar
- Government & Binding
- Minimalism
- Universal grammar
- LAD

Ronald Langacker, Prof. Emeritus UCSD

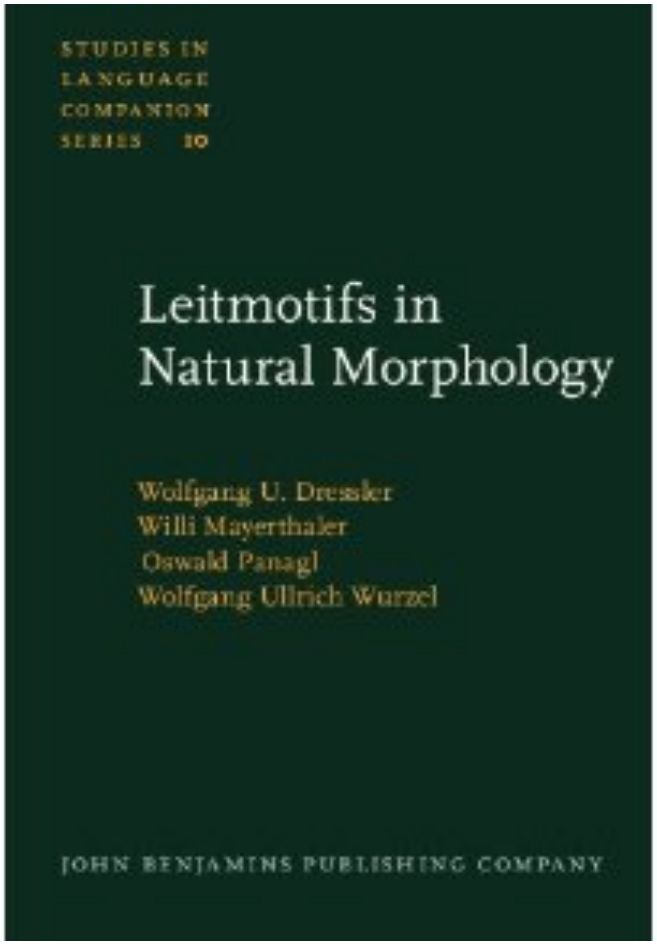
- One of the founders of Cognitive Linguistics and the creator of Cognitive Grammar

1987. Foundations of Cognitive Grammar, Volume I, Theoretical Prerequisites. Stanford University Press.

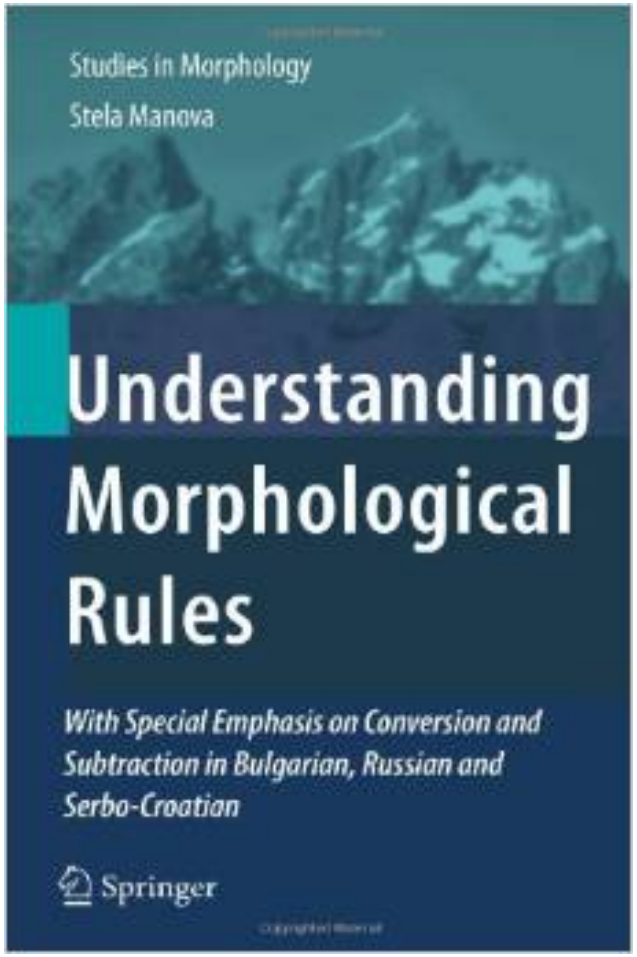
1991. Foundations of Cognitive Grammar, Volume II, Descriptive Applications. Stanford University Press.

University of Vienna: Natural Morphology

- Theoretical framework compatible with Cognitive Linguistics
- There are also Natural Phonology & Natural Syntax.
- Dressler, Wolfgang U.; Willi Mayerthaler; Oswald Panagl and Wolfgang Ullrich Wurzel. 1987. *Leitmotifs in Natural Morphology*. Amsterdam: Benjamins.

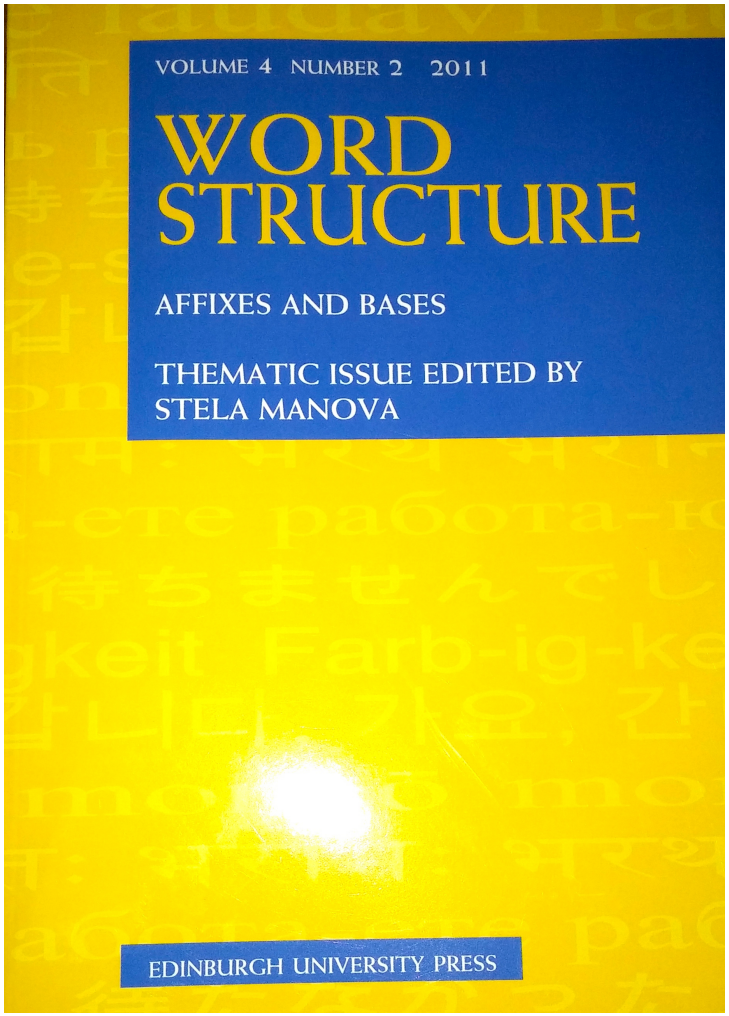


Natural Morphology & Cognitive Linguistic Research at the University of Vienna



- Manova. 2011. Understanding Morphological Rules. Dordrecht, New York: Springer.
- Combines insights from Natural Morphology and Cognitive Grammar.

Natural Morphology & Cognitive Linguistic Research at the University of Vienna



- Manova. 2011. Affixes and Bases. Thematic Issue. Word Structure 4:2. Edinburgh: Edinburgh University Press.

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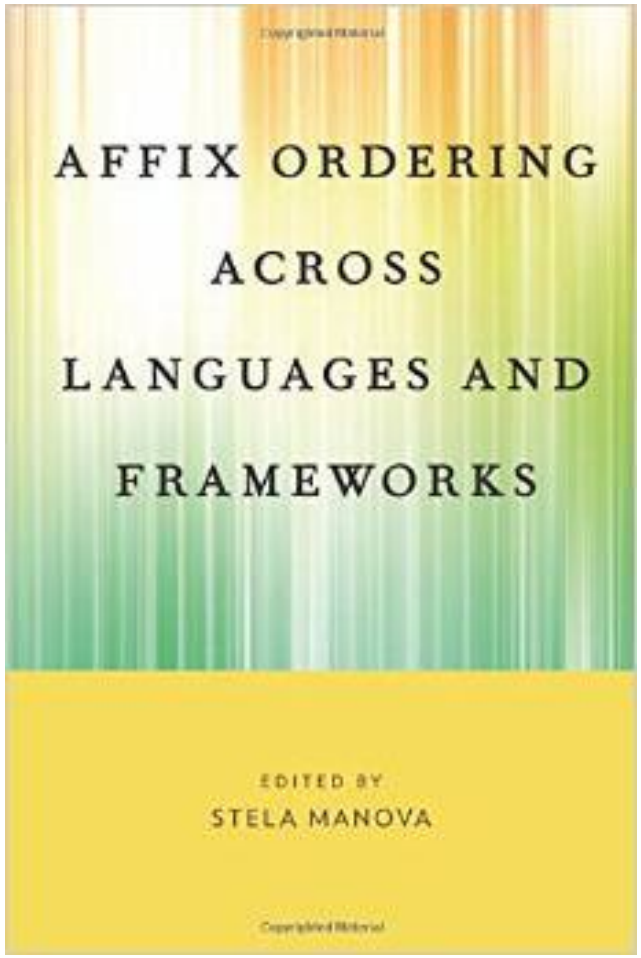


- Manova. 2014. Affix Ordering Across Languages and Frameworks. Oxford, New York: Oxford University Press.

Morphology

Consists of the following components:

- Word-formation (production of new words)
  - Derivation, e.g. lehren → Lehrer
  - Compounding, e.g. Lehrerzimmer
- Inflection (production of word-forms)

e.g. lehre, lehrst, lehrt, etc.

Lehrbuch, Lehrbücher, etc.

Suffixes and prefixes

to teach → teach-er (suffixation, i.e. -er is a suffix)

to write → re-write (prefixation, i.e. re- is a prefix)

Suffixation: The order of suffixes

assist → assist + -ant → assist + -ant + -ship

- Note that an alternative ordering of the suffixes is not possible, i.e. *assist-ship-ant does not exist.

Concepts

- Defined in
  - Psychology (categorization)
  - Linguistics (semantics)
  - Philosophy (conceptualization)

- Concepts are of particular importance to Cognitive Science.
- Concepts are (defined with the help of) words.

Cf. Margolis, E. & S. Laurence (1999)

Concepts

- COLOR
  - red
  - blue
  - green
  - yellow
  - etc.

Concepts

- A, B, C, X, Y, Z
  - AX, AY, AZ
  - BX, BY
  - CX, CZ

WAITER

Concepts: Frames

- WAITER
  - is a PROFESSION
  - works at a RESTAURANT
  - serves FOOD and DRINKS
  - collects MONEY
  - etc.
- Semantic frame of WAITER.
- Frame elements are the things that are worth talking about when a frame has been activated by a word.
- Cf. Frame Semantics (Fillmore 1982), FrameNet project

https://framenet.icsi.berkeley.edu/fndrupal/

Concepts

- A, B, C, X, Y, Z
  - AX, AY, AZ
  - BX, BY
  - CX, CZ

Concepts: Conceptual Semantics

- Definition of basic concepts (primitives) to account for the fact that different elements may exhibit the same (or similar) combinability / frames.
- Such concepts are of the type EVENT (e.g., the verbs go, walk), PATH (e.g., prepositions to, from), THING (e.g., library, university), etc.
- Primitive conceptual elements and their rules of combinations are the building blocks of our mental representations of the world.
- Cf. Conceptual Semantics (Jackendoff 1990)

Cognitive concepts in WF

What do these words have in common?

- assistantship
- notaryship
- traineeship
- leadership
- gardianship

Cognitive concepts in WF

- assistant-ship
- notary-ship
- trainee-ship
- leader-ship
- gardian-ship

Cognitive concepts in WF

The words still have a feature in common:

- assist-ant-ship
- not-ary-ship
- train-ee-ship
- lead-er-ship
- gard-ian-ship

Cognitive concepts in WF

- assist-ant-ship
- not-ary-ship
- train-ee-ship
- lead-er-ship
- gard-ian-ship

VERB-SUFF$_{\text{PERSON}}$-SUFF$_{\text{ABSTRACT NOUN}}$

Cognitive concepts in WF

What do these words have in common?

- assistant
- protestant
- servant

Cognitive concepts in WF

- assist-ant
- protest-ant
- serv-ant

Cognitive concepts in WF

What explains the following derivations?

- assist-ant-ship
- protest-ant-ism
- serv-ant-hood

Cognitive concepts in WF

- assist-ant-ship
- protest-ant-ism
- serv-ant-hood

BASE-SUFF$_{\text{PERSON}}$-SUFF$_{\text{ABSTRACT NOUN}}$

Cognitive concepts in WF

What do these words have in common?

- waiter
- slacker
- blogger
- hater
- leader

Cognitive concepts in WF

- wait-er
- slack-er
- blogg-er
- hat-er
- lead-er

Cognitive concepts in WF

- wait-er-age
- slack-er-dom
- blogg-er-hood
- hat-er-ism
- lead-er-ship

BASE-SUFF$_{\text{PERSON}}$-SUFF$_{\text{ABSTRACT NOUN}}$

Cognitive concepts in WF

- lead-er-ship (leader is a person)
- *open-er-ship (opener is a object)

- govern-or-ship (governor is a person)
- accelerat-or-y, *accelerat-or-ship (accelerator is an object)

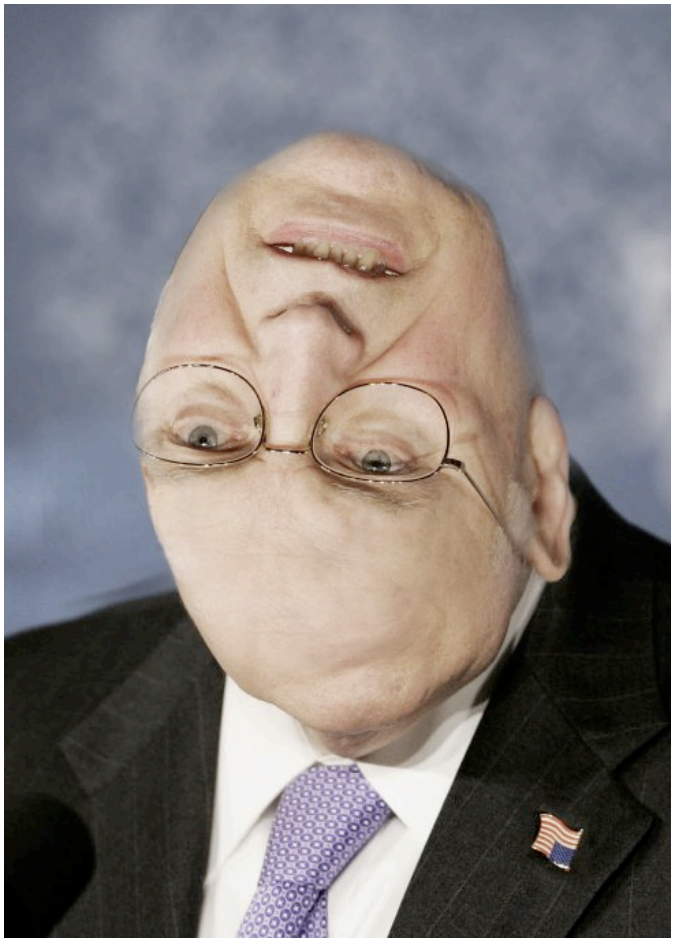
$\text{BASE-SUFF}_{\text{PERSON}}\text{-SUFF}_{\text{ABSTRACT NOUN}}$

$\text{BASE-SUFF}_{\text{OBJECT}}\ \text{-}\varnothing$

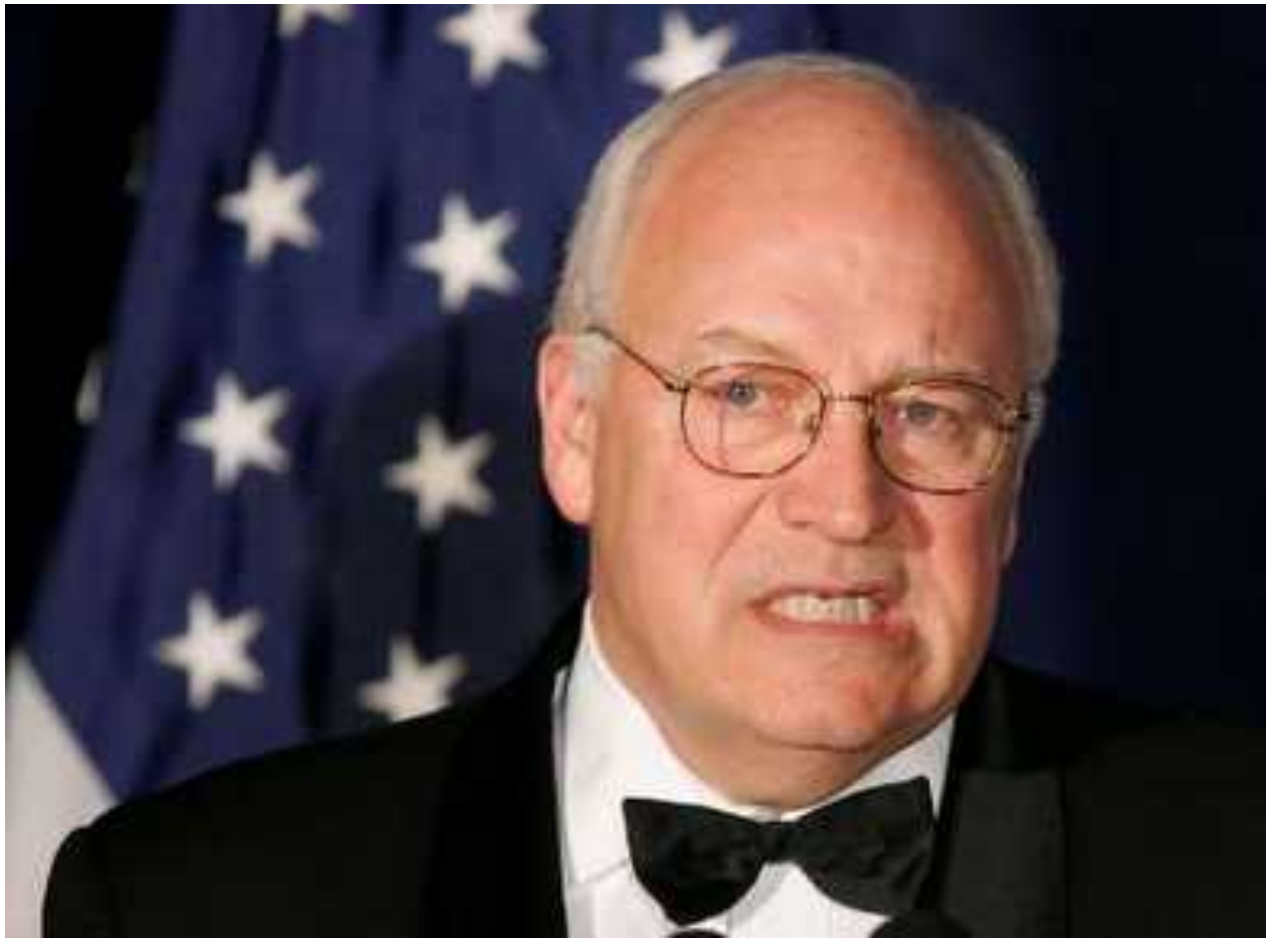
$\text{BASE-SUFF}_{\text{OBJECT}}\text{-SUFF}_{\text{ADJECTIVE}}$

Object recognition

Face (person) recognition



Face (person) recognition



Conclusions

- PERSON (face) and OBJECT are two different cognitive concepts.
- PERSON and OBJECT are concepts pertinent to word-formation.
- Cognitive concepts have different representations in the brain (i.e., face recognition and object recognition activate different areas in the brain).
- General cognitive principles are operative in grammar, which is in line with the assumptions of Cognitive Grammar.

Thank you!

stela.manova@univie.ac.at

http://homepage.univie.ac.at/stela.manova/

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