Transparency in multi-word expressions: An LTAG approach

Timm Lichte & Laura Kallmeyer
CRC 991, University of Düsseldorf

Overview

Aims:
- to model the transparency (modifiability, compositionality) of idiomatic MWE within the framework of Lexicalized Tree-Adjoining Grammar (LTAG)
- three different strategies for three types of transparent MWE

General questions:
- How to implement transparency without provoking overgeneration?
- To what degree does transparency imply morpho-syntactic flexibility?
- How to integrate underlying conceptual/figurative mappings?

Framework: LTAG + frames

Lexicalized Tree-Adjoining Grammar (LTAG)
- lexicon: lexicalized elementary trees
- combinatorial operations: substitution (replacement of leaf node) or adjunction (replacement of inner node)
- extended domain of locality (EDL): elementary trees can be made large enough to span any MWE.

Frame representations
- base-labelled typed feature structures + unification (Kallmeyer & Osswald, 2013)

Argument structure constructions

Contrast between intransitive and transitive directed motion constructions:
(1) He rolled (the barrel) into the house.

Proposed analysis: constructional analysis of Kallmeyer & Osswald (2013); rolled may anchor different tree templates with different argument linking patterns; tree templates are further factorized in the metagrammar.

Open questions: Do we rather want to let the object NP immediately trigger the transitive reading? Can we implement a more general linking theory based on abstract roles such as ACTOR and UNDERGOER (Van Valin, 2005)?

Light-verb constructions

Proposed analysis: syntax remains rather unchanged; semantics of the light verb and the event noun are unified at the root nodes (cf. Culicover & Jackendo, 2005:225).

Transparency: morphology and syntax of the object NP are largely unconstrained (take (three) walks; take the easiest walk)

Open questions: not applicable to every event noun (take a kiss) - How to constrain the event type in the light verb? One single entry for light verb take?

Compositional/non-compositional figurative MWE

Contrast in the semantic target of NP modifiers:
(2) He kicked the proverbial / social / #rusty bucket.
(3) He spilled the hot / juicy / political beans about the meeting.

Proposed analysis: different interface patterns.

Open question: What is the connection between the syntactic and the figurative/conceptual dimension?

(4) The strings [that Pat pulled] got John the job.
(Sailer, 2000:420-b)
(5) Pat pulled some strings for Chris. But Alex didn’t have access to any strings.
(Manfred Sailer, p.c.)