

How to count stuff: Conceptual Shifts in German Noun Countability

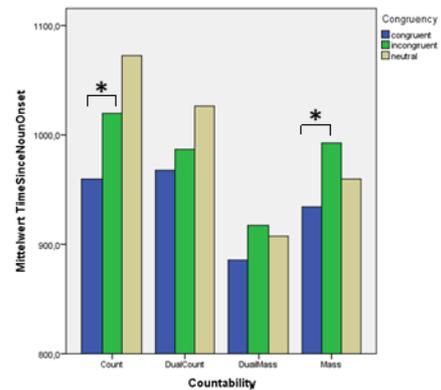
Natalja S. Beckmann, supervisor: Peter Indefrey
(Heinrich-Heine-University)

Syntactic countability is thought to be at least partially linked to the conceptual distinction between a bounded entity and an indivisible mass. The present body of research empirically examines shifts in the countability domain which change exactly this property.

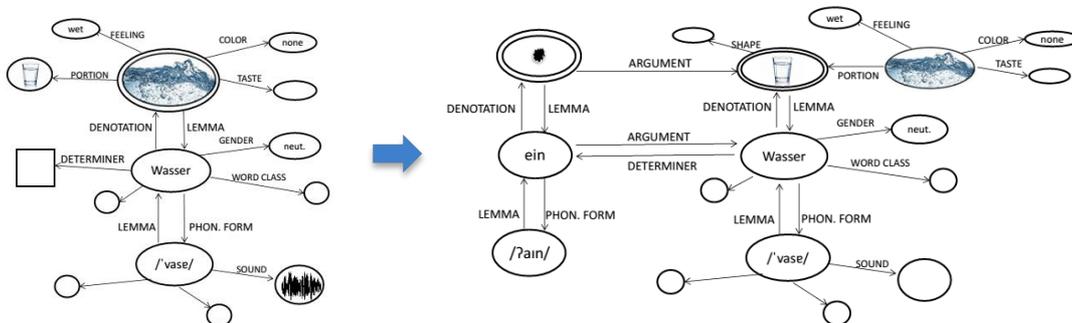
- 1) a. Count-to-Mass Shift (Grinder)
*There is **much** apple in the cake.*
- b. Mass-to-Count Shift (Packager)
*I drank **a** beer yesterday.*

In order to investigate the interplay of syntax and semantics in these shifting processes, a lexical decision experiment was conducted, that used two main classifications as experimental factors: COUNTABILITY (count, dual-count, dual-mass, mass) was determined based on Det-N co-occurrences in corpus results and SHIFTABILITY (often used with shift, not used with shift) is the result of an extensive sentence production study. Additionally, further semantic factors were included that have been hypothesized in linguistic literature to influence shift success (e.g. concreteness, atomicity). The noun stimuli were presented in three conditions: preceded by a congruent determiner, an incongruent determiner or by a length-matched segment of brown noise.

The results showed a significant congruency effect for the count and mass nouns, but not for the two classes of dual nouns. Further, an incongruent determiner delayed responses compared to the neutral condition only for the mass nouns, but not for count nouns (see figure right). Semantic factors, including Shiftability did not yield significant effects. This outcome suggests that syntactic countability (i.e. combinational information about determiners) is stored in a noun's lexical entry but that its activation is not significantly restricted or influenced by how well the resulting incongruent NP can be interpreted.



We therefore conclude that countability shifts can be analyzed as syntactically driven metonymy; A process effectively formalized in a frame analysis, where syntactic countability is represented as combinatorial restrictions of the lemma and a violation of such restrictions gives rise to a re-mapping of the reference to a non-default conceptual node (see figure “ein Wasser” ‘a water’ below).



To investigate the precise nature of the congruency effect, a phoneme monitoring experiment and an ERP study are conducted at present. We expect the results of the phoneme monitoring experiment to determine whether countability shifts should be considered a lexical or a post-lexical operation by contrasting the resulting effects with the lexical decision results. The ERP study compares countability shifts with classical semantic and syntactic violations.