

Semantic transparency of compound nouns in native and non-native speakers.

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When acquiring a second language, L2 learners have to learn new vocabulary and to integrate the new L2 representations into the mental lexicon. Research on the structure and development of the bilingual mental lexicon has mainly concentrated on factors like cognate status, concreteness, and language proficiency, which are supposed to influence bilingual representations and/or processing. To date, research has also mainly focused on monomorphemic words. How polymorphemic words, such as compounds, are represented in the bilingual mental lexicon is less explored (but see Platz-Schliebs, 1995, Lowie, 1998, Levy, Goral, & Obler, 2005, and Nicoladis, 2006).

Compounds vary in their *semantic transparency*, that is, the strength of the relationship between the meaning of the whole compound and the meaning of its constituents. If the meaning of a compound is clearly related to the meaning of its constituents, such as *snowball* is to *snow* and *ball*, the compound is (*semantically*) *transparent*. If the meaning of a compound is not clearly related to the meaning of its constituents as in *pineapple* and *pine* or *apple*, the compound is (*semantically*) *opaque*. If the meaning of a compound is only clearly related to one of its two constituents, as in *strawberry* (*berry*) or *jailbird* (*bird*), the compound is *partially transparent*. Interestingly, native speaker judgements have been shown to be quite consistent in classifying compounds as transparent-transparent (*snowball*), transparent-opaque (*jailbird*), opaque-transparent (*strawberry*) or opaque-opaque (*pineapple*).

Our study explores the representation of German compounds in native and non-native speakers, focusing on two main questions:

1. How do L2 speakers perceive the semantic transparency of L2 compounds, compared to L1 speakers?
2. Does the perceived semantic transparency change with increasing L2 proficiency, and if so, how and why?

Forty native speakers of German (*L1 German*) and forty late bilinguals with German as L2 and Russian as L1 (*L1 Russian*) performed an off-line semantic transparency rating task on forty German compound nouns. Analogous to previous studies we used a rating scale from 1 to 7 — with 1 indicating the weakest relation and 7 the strongest one. Participants were asked to rate the semantic transparency for both head and modifier, by indicating the strength of the relationship between the meaning of the compound (e.g. *snowball*) and the meaning of its constituents (*snow* and *ball*, respectively) on a scale from 1 to 7. For the two groups we calculated mean transparency ratings for head and modifier.

In general, the L2 speakers' perceptions of the compounds' semantic transparency resembled the L1 speakers' perceptions: correlations for mean transparency ratings between the *L1 German* and *L1 Russian* groups, amounted to .90 for the modifier and .92 for the head, respectively. Paired t-tests revealed that there was a significant difference between the semantic transparency ratings for the compound heads ($p < .02$), with native speakers of Russian perceiving compound heads on average as less transparent than native speakers of German. The difference in semantic transparency ratings for the compound modifiers was not significant ($p = .74$).

In order to research the development of L2 semantic transparency, we divided the *L1 Russian* group into two, based on the participants mean scores for self ratings in reading, writing, speaking and comprehension skills. The twenty participants in the *L1 Russian Advanced* group rated themselves higher on all four macro skills, as they had acquired German at a younger age, and had been living in Germany for a longer period of time than the twenty participants in the *L1 Russian Intermediate* group.

We calculated mean transparency ratings for the *L1 Russian Advanced* and *L1 Russian Intermediate* groups separately. The *L1 Russian Intermediate* group rated the modifiers' transparency lower than the *L1 Russian Advanced* group did, and that pattern was reversed for the head ratings: the intermediate group rated the heads' transparency higher than the advanced group did.

These results suggest that more advanced L2 speakers might perceive the meaning of L2 compounds on a qualitatively different basis than less advanced L2 speakers. For less advanced speakers a compound's head might be the most salient constituent, and therefore perceived to be contributing more to the compound's meaning. Advanced speakers, however, may start to pay more attention to the specifying *modifier* and assess its relation to the compound's meaning as the stronger one due to their more differentiated vocabulary. To illustrate this point, to a beginning learner of English, the constituent *book* in *cookbook* and *phonebook* might seem relatively transparent. With increasing language proficiency and the addition of other compounds sharing the same constituent such as *chequebook*, *logbook*, *matchbook*, *notebook*, and *yearbook* to one's vocabulary, the meaning of *book* might become increasingly abstract, fuzzy, and therefore less semantically transparent within compounds, whereas the differentiating role of the various modifiers might gain more importance.

To summarize, we found significant differences between L2 and L1 speakers' ratings, with L2 speakers perceiving compound heads on average as less semantically transparent than L1 speakers. Within the group of L2 speakers a developmental shift in transparency ratings emerged. Less advanced L2 speakers rated the compounds' heads as relatively more transparent compared to the modifiers, while more advanced L2 speakers displayed the opposite pattern. This developmental head-modifier shift in perceived semantic transparency provides the first evidence for L2 compounds undergoing representational changes during language learning.

References

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Compounding is a very productive word formation process. Productivity is one of the defining features of human language which allows a native speaker to produce a large number of words and sentences according to the rules of a generative grammar (Bauer 1991:84). In the English language there exists a vast number of words which were produced by compounding. In my term paper I am going to explain in detail what we understand by the term compound. The bases of a compound function both grammatically and semantically as a single word. English compounds usually comprise two bases only but in principle, any number of bases may be involved (Quirk 1990:1567). But this is a minor class of items. Native speakers of English accept and use noun + noun compound nouns so readily and naturally, that they fail to notice the grammatical incongruity of using one noun to describe another. Learners of English whose native languages have a stricter grammatical basis than English find these constructions not merely difficult to use but puzzling, and apparently "wrong". This paper aims to correct this position by providing extensive illustrations from everyday English speech to describe how commonplace, such constructions are (and how, in many cases, there is no alternative to using them) alongside Structural Semantic Characteristics of English, morphological, syntactical Characteristics of Nouns. The Use of Articles with Nouns in Some Set Expressions.

3. Third task of my work is to give structural semantics characteristics to English nouns.

4. The novelty of the work. Our work possesses novelty concluded in the fact that I worked out my own test exercises dealt with the composition of nouns and right usage of them.[1].

5. Practical significance of the work. In our opinion the practical significance of our work is hard to be overvalued.

a) native (Germanic), such as: un-, over-, under- etc. b) Romanic, such as: in-, de-, ex-, re- etc. c) Greek, such as: sym-, hyper- etc.

b) English compounds have a two-stem pattern, with the exception of compound words which have form-word stems in their structure, e.g. middle-of-the-road, off-the-record, up-and-doing etc. The two-stem pattern distinguishes English compounds from German ones.

Ways of forming compound words.

Verbs can be formed from nouns of different semantic groups and have different meanings because of that, e.g.:

a) verbs have instrumental meaning if they are formed from nouns denoting parts of a human body e.g. to eye, to finger, to elbow, to shoulder etc. .

Semantic classification.

a) prefixes of negative meaning, as in-, non-, un- (invaluable, nonformals, unfree).

b) prefixes denoting repetition or reversal actions, as: de-, re-, dis- (decolonize, revegetation, disconnect).

Verbs can be formed from nouns of different semantic groups and have different meanings because of that, e.g.

a) verbs have instrumental meaning if they are formed from nouns denoting parts of a human body, e.g. to eye, to finger, to shoulder. They have instrumental meaning if they are formed from nouns denoting tools, machines, instruments, weapons, e.g. to hammer, to rifle, to nail.

b) verbs can denote an action characteristic of the living being denoted by the noun from which they have been converted, e.g. to crowd, to wolf, to ape.