Allomorphy: Old Concept, Big Data, New Model

New methods of analysis for rival polysemous affixes

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ABSTRACT

Many linguistic concepts were first introduced in the Structuralist Era, the time when linguists believed in clear-cut oppositions and did not have access to large corpora. I find that allomorphy is a scalar phenomenon that can be best captured in terms of a radial category.

The new model is based on quantitative methods and can handle semantic dissimilation of allomorphs as well as distributional overlap. I show how statistical models turn allomorphy into a measurable and verifiable correspondence of form and meaning.

Old Concept

I revisit an old concept of Allomorphy, which was first introduced to linguistics in the 1940s by American Structuralists. Despite fruitful discussions, the most rigid approach (Harris 1942) to Allomorphy persisted in the history of the field.

New Model

I propose an alternative model of Allomorphy. It is more accurate and realistic with regard to such properties of data as gradience, semantic dissimilation of allomorphs, and overlap in their distribution.

1. CONCEPT WITH STRUCTURALIST BAGGAGE (+/-)

Zeitig Harris (1942): “We can arrange morpheme alternants by units in exactly the same manner as we arrange sound types in phonemes.”

• A morpheme unit is a group of alternants which have the same meaning and complementary distribution.

• Most rigid model

Charles Hockett (1947): the analogy “allophone : phonemes = morph : morpheme”

• Amendment: Non-contradictory distribution (+) complementary distribution or (II) partial complementation, i.e. free variation in the environments where both alternants can occur (e.g. you and me vs. you and I).

• Less rigid model

Eugene Nida (1948): Morphemes are meaningful units, different from phonemes.

• Amendment: No items that are different in form are absolutely identical in meaning. “From the difference in their distribution they acquire a certain difference in meaning.”

Flexible model

2. NEW MODEL: ALLOMORPHY AS A RADIAL CATEGORY

Allomorphy is broader than its conventional understanding.

Allomorphy is a scalar relationship between morpheme variants — a relationship that can vary in terms of closeness and regularity.

Allomorphy is a gradient phenomenon — with a central prototype, standard exemplars and non-standard deviations.

The core clear cases of allomorphy can be viewed as prototypical rather than the only possible.

Deviations are recognized as Allomorphy or Non-Allomorphy on the basis of statistical measurements.

New distinctions:

Prototypical Allomorphy is characterized by the closest and most automatic association of forms. Typically phonologically conditioned by a regular, automatic, and productive phonological rule. E.g.: Russian prefixes RAZ, RAS.

Standard Allomorphy — satisfies both criteria (identical meaning & complementary distribution), but is governed by factors other than (or in addition to) strict phonology — morphophonology, register, semantics. E.g.: prefixes RAZ, RAZD.

Non-Standard Allomorphy — violates one or both criteria BUT shows a strong semantic similarity or robust pattern of distribution. E.g.: Russian prefixes O/-OB, S/SO/ PERO/-PRE, VZ/-VOZ, V/-Z.

3. CASE STUDY OF THE PROTOTYPE: The Russian prefix RAZ / RAS - “APART”

Modeling of prefix polysemy: 200 verbs

The choice of RAZ vs. RAS is phonologically conditioned by a productive and exceptionless process of regressive voicing alternation.

4. CASE STUDY OF NON-STANDARD ALLOMORPHY: The Russian prefixes VZ - VOZ - “UPWARD”

Unique situation in Slavic: the native prefix VZ- and the loan prefix VOZ- have been coexisting in Russian since their formal differentiation emerged in the 14th c.

The high altitude of VOZ- motivates gradual entry into a new state of affairs (Ingressive). The short trajectory of VZ- justifies abruptness of a rapid momentary event (Semifactive).

The result of interaction and co-evolution of the native Russian prefix VZ- and a cognate loan prefix VOZ-.

Different radial category profiles

The results from the process of semantic dissimilation of former phonological variants.

CASE STUDY OF NON-STANDARD ALLOMORPHY: The Russian prefixes O/-OB - “Aound”

SEMANTICS: highly polysemous prefixes: How do we assess whether they are identical in meaning?

Data: 1,057 verbs prefixed in O- and OB. Single radial network of 15 submeanings

Radial category profiling:
Different profiles of O- and OB- in terms of type frequency of verbs attested for each submeaning:

The phonological factor is stronger than the semantic factor

The result of interaction and co-evolution of the native Russian prefix VZ- and a cognate loan prefix VOZ-.

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