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Against “lexicalization” (and what to replace it with)

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1. Grammaticalization vs. lexicalization

van der Auwera (1999) on verbal prefixes (and particles) in Dutch and German

grammaticalization:	<i>zer-schneiden</i>	‘cut apart’
	<i>zer-brechen</i>	‘break apart’
	...	
lexicalization:	<i>ver-nehmen</i>	‘perceive’
	<i>ver-geben</i>	‘abandon’
	...	

Wiemer & Bisang (2004: 6):

The problem of how to distinguish between grammaticalization and lexicalization is notorious in research on grammaticalization, although it seems to be badly neglected in some approaches. It is implicitly present in the prototypical definition of grammaticalization as the development of a lexical item to a marker of a grammatical category — a development which presupposes a continuum between lexicon and grammar. If we look at language change from the

Wiemer (2014: 434): Can we apply a range of different tests to distinguish grammaticalization from lexicalization?

[3b] There is no doubt that the application of such test batteries yields important insights into the **nature of the changes involved (and their structural results)**, but it does not provide solid evidence for a unitary notion of **grammaticalization** that can be applied across **complex phenomena** and languages and that gives us a reliable way of distinguishing between **grammaticalization and other types of (complex grammatical) change**.

(citing a similar passage in Haspelmath 2011)

2. Problems with “lexicalization”

– packaging meaning components into lexical forms: *lexification patterns*
(e.g. Talmy 1985; Levin & Rappaport Hovav 2019)

English: *I kicked the door open.* (*kick* = manner)

French: *J’ai ouvert la porte d’un coup de pied.* (*ouvrir* = cause + open)

- “lexicalized compounds” = **not fully compositional** compounds (e.g. Jackendoff 2016)

e.g. English *honeymoon*
strawberry
eggplant
steamboat

When the meaning is not fully predictable, the form must be **lexically listed** – this is often called “**lexicalized**”.

- lexicalized derivatives = **not fully compositional** derivatives

e.g. English *curiosity*
oddity
personality (Bauer et al. 2013: 258)

- “more or less lexicalized”: **lexicalization is thought to be a matter of degree**

cf. also expressions such as “highly lexicalized”, “weakly lexicalized”

- **semantic vs. phonological** lexicalization (Bauer 2001: 45)

semantically lexicalized = idiomatic, e.g. *eggplant* (phonologically regular)
phonologically lexicalized = irregular, e.g. *leng-th* (semantically regular)

- **institutionalization vs. lexicalization**

(Bauer 1993: 48): if a new word starts to be accepted as a new word, it is “institutionalized”, e.g. *telephone box* (not e.g. ‘box shaped like a telephone’)

But is this necessarily a *diachronic* process, from nonce word to institutionalized to lexicalized (Bauer 1983: §3.2)?

Some words start out as deliberate coinages, e.g. *mentalicization* (above).

- lexicalization cannot simply be “institutionalized **adoption into the lexicon**” (cf. Brinton & Traugott 2005: 89), because we do not want to include loanwords or neologisms such as *texting*.
- Maybe lexicalization can be understood as any change from a more regular to a more idiosyncratic pattern or expression, as in Lehmann (2002: 3).

S1. Lexicon and grammar

approach	<i>idiosyncratic</i>	\longleftrightarrow	<i>regular</i>
complexity level	<i>holistic</i>		<i>analytic</i>
<i>higher</i>	lexicon	phraseology syntax	grammar
\updownarrow		morphology	
<i>lower</i>	morphemic	word formation	inflection

But: dictionary item is not the same as mentally stored item!

Speakers **store** a large number of completely regular combinations, not only inflected words (Plag 2003: 48), but also many regular phrases (Arnon & Snider 2010).

3. The proposed conceptual framework in a nutshell

“Lexicalization” = becoming a lexical item

– there are four ways in which “lexical (item)” can be understood:

- (A) lexical item = **word**
(a leaf of a syntactic tree; a form that is written between spaces)
- (B) lexical item = **content word**
(as opposed to function word, or grammatical item)
- (C) lexical item = **dictionary item** (*inventorial item*)
(something that must be learned by speakers and cannot be constructed)
- (D) lexical item = **mentally stored item** (*mentalic item*)
(something that is stored and accessed holistically by a speaker)

These different concepts are often confused (or not clearly kept apart) by linguists, and the term “lexicalization” may be used in different and confusing ways.

I propose that we replace “lexicalization” by four different terms, broadly corresponding to the four senses of lexical item:

- (α) **univerbation** = the transition from a word combination to a word (§4)
- (β) **lexemization** = the transition from an unrestricted combination to a lexeme (§5)
- (γ) **inventorization** = the passing of an unrestricted combination into the **inventorium** (the set of morphs, constructions and phrasemes of a language; §6)
- (δ) **mentalicization** = the passing of an unrestricted combination into a speaker’s **mentalicon** (= “mental lexicon”; §7)

NOTE:

I am generally talking about languages as sets of speaker conventions, not about languages as mental entities. A speaker must have knowledge of a language (i.e. it must be mentally represented), but linguists generally study **social languages**, not individuals’ knowledge of languages.

4. Univerbation

(1) **Univerbation** is the diachronic change from a word combination to a word.
(cf. Lehmann 2020)

e.g.

- (2) a. Latin *cantare habeo* ‘I have to sing’ > Spanish *cantar-é* ‘I will sing’
- b. Latin *quo modo* ‘in what way’ > *quomodo* > Spanish *cómo* ‘how’
- c. Greek *θέλω ἵνα ὑπάγω* ‘I want to go’ > *θέ να πάω* > *θα-πάω* ‘I’ll go’

When one of the elements becomes an affix, the process is called **agglutination**.

When there is no resulting affix, the process is called **lexemization**.

But what is a “word”? In Haspelmath (2011), I noted that there is no generally applicable definition of “word” that gives the expected results.

Here is a new proposal:

(see <https://dlc.hypotheses.org/2621>)

- (3) A **word** is – a free morph,
– or a bound morph that is not an affix,
– or a combination of a root or a compound with its affixes.

“free morph”:	e.g. <i>hello, water, now</i>
“bound morph (not affix)”	e.g. <i>to (London), my (garden)</i>
“root + affix(es)”	e.g. <i>cat-s, real-iz-ation-s</i>

(for definitions of “root” and “affix”, see Haspelmath 2021)

(4) A **compound** is a combination of two roots which occur next to each other and which cannot be expanded by nominal or adjectival modifiers.

cf. Ralli (2013: 21) on Modern Greek:

- (5) a. *áyria* *γάτα* 'wild cat'
wild cat
- b. *i* *áyria* *tis* *Marías* *i* *γάτα* 'Maria's wild cat'
the wild of Maria the cat
- c. *áyria* *ke* *meγάli* *γάτα* 'wild and big cat'
wild and big cat
- (6) a. *ayrióyata* 'wild cat'
- b. **ayriomavrióyata* 'wild black cat'
- c. **poliayrióyata* 'very wild cat'

Thus, there is a viable definition of “word”, making it possible to define *univerbation* in terms of diachronic change to a word.

5. Lexemization

Stereotypically, “lexicalization” is a process in which a new lexeme arises. For this “core sense”, we can create a new term that specifically refers to a lexeme:

(7) **Lexemization** is the diachronic change from an unrestricted combination to a lexeme (stem).

e.g.

- (8) a. Latin *animus advertere* > *animadvert-ere*
b. Latin *com-ed-ere* ‘eat up’ > Spanish *com-er* ‘eat’
c. Latin *terrae motum* ‘earth movement’ > Italian *terremoto* ‘earthquake’
d. Ancient Greek *paid-íon* ‘little child’ > Modern Greek *peḗi* ‘child’

But what is a “lexeme”?

This term is used widely by morphologists, and there is even a distinct “theoretical approach” that is sometimes called “lexeme-based morphology” (as opposed to “morph(eme)-based morphology”):

“Lexeme-based models of morphology reject the notion of morpheme and take the traditional dictionary entry as a point of departure. One set of morphological principles, inflectional morphology, defines the word forms of a lexeme and another set, derivational morphology, derives new lexemes from base lexemes.” (Spencer 2019: 224)

But how is “lexeme” defined?

(9) A *lexeme* is the set of forms that minimally contain the same *lexeme-stem*, or one of its suppletive counterparts, and that may only contain inflectional affixes in addition. (Haspelmath 2023: §8)

(10)	language	lexeme	lexeme-stem	some word-forms in the set
	English	WALK	<i>walk-</i>	<i>walk-s, walk-ed, walk-ing</i>
	Latin	LUPUS ‘wolf’	<i>lup-</i>	<i>lup-us</i> ‘NOM.SG’, <i>lup-i</i> ‘NOM.PL’
	German	AUTOBAHN ‘freeway’	<i>Auto-bahn-</i>	<i>Autobahn-en</i> ‘freeways’
	Spanish	JUGADOR ‘player’	<i>juga-dor-</i>	<i>jugador-es</i> ‘players’

The definition of “lexeme” thus presupposes the notion of a lexeme-stem:

(11) A *lexeme-stem* is a form containing at least one *root* that can combine with *inflectional affixes* but does not contain any.

And what is an “inflectional affix”?

(12) An *inflectional construction* is a construction that expresses an inflectional meaning (role, person, number, gender, tense, mood, evidentiality, polarity) by an *affix* or nonconcatenatively.

These definitions may appear unintuitive – especially the extensional definition of “inflectional construction”.

But they have the great virtue that they do not make any reference to “lexicon” or “lexical item” – and this is important, because we have seen that these terms are used in four different ways.

Is “lexicalization” restricted to the creation of lexemes? Hilpert (2019) says so:

“Lexicalization is the process of adding new open-class elements to a repository of holistically processed linguistic units.”

But there is no reason to think that verb-creating univerbations and adverb-creating univerbations are crucially different:

<i>animum advertere</i>	>	<i>animadvertere</i>	(VERB)
<i>magno opere</i>	>	<i>magno opere</i>	(ADVERB)

Thus, *lexemization* (as a subcase of univerbation) is not a particularly interesting concept.

6. Inventorization

Most commonly, “lexicalization” is understood in the sense of “inventorization”:

(13) *Inventorization* is a diachronic change by which an unrestricted combination acquires unpredictable properties so that it must be part of the *inventorium*.

The INVENTORIUM (a term coined in 2022) is the “dictionary” of a language as a set of social conventions. It is defined as in (8).

(14) The *inventorium* of a language is the set of its morphs, its constructions and its phrasemes (= phraseological patterns).

This is different from

- the set of words (because many words are constructed on the fly)
- the set of lexeme stems (because many lexemes are not inventorized)
- the set of idiosyncratic words (because the inventorium also contains phrasemes)
- the mental lexicon (because our mental storage space is so vast that we store a lot of completely regular combinations)

The term *lexicon* was originally introduced for the inventorium (Bloomfield 1933: 274), defined as “the list of basic irregularities”;

But linguists have always had the intuition that “**the lexicon**” is a list of words, so word-formation rules were thought to be “in the lexicon”, too (“lexical rules”, e.g. Pollard & Sag 1994: 37).

The inventorium is **not a set of words** or word-like elements – in fact, most of its elements are phrasemes, e.g.

bone of contention, cheek by jowl, in other words, to make a long story short, take a shower, come to one’s senses, know something by heart, start a family, heavy accent, soundly asleep, fasten the seatbelt, wet paint, be in despair, you have my support, happy birthday to you, will you marry me? (Mel’čuk 2012)

In addition, the inventorium includes the set of all constructions, i.e. it also contains the grammatical rules.

Inventorization is often mixed up with *mentalicization*, so we need to take a close look at this concept.

7. Mentalicization

The inventorium is the repository of elements that must be stored as they cannot be created on the fly, at the level of **social linguistic conventions**.

But linguists are often more interested in **mental languages**, i.e. speakers’ mental representations of their knowledge of the social conventions. (A mental language is often called “I-language” or “competence”, especially in generative grammar contexts.)

The counterpart of lexicalization at the level of mental systems is “mentallicization”:

(15) *mentallicization* is a psychological change by which an unrestricted combination comes to be part of a speaker’s **mentalicon** (or “mental lexicon”).

The term *mentalicon* refers to a speaker’s “mental lexicon”, corresponding to the inventorium of a language.

(16) A speaker’s *mentalicon* is the set of morphs, constructions, phrasemes and predictable combinations that are stored in their brain.

Crucially, a speaker’s mentalicon contains not only the unpredictable elements, but also many predictable elements.

8. Does all this help us understand inventorization (“lexicalization”)?

A common type of change in languages can be described as inventorization (§6) – the creation of new forms that have some unpredictable properties.

What might explain such changes?

- Mentallicization in some speakers seems to be a necessary prerequisite.
- But some high-frequency combinations (e.g. *I like it, that’s a problem, ...*) are presumably mentallicized in all speakers, so it’s not sufficient.
- It seems that inventorization can be seen as a type of random event that does not need explanation.

Grammaticalization is different because the extreme rarity of *antigrammaticalization* is in need of explanation (Haspelmath 1999; 2004).

Antilexicalization (= “folk etymology”, Lehmann 1989; Lehmann 2002; Brinton & Traugott 2005: 102)

alcoholic > *alc-oholic*
work-oholic
choc-oholic

i.e. a former single lexeme becomes a kind of compound

Antilexicalization is very rare, but no special explanation is needed, because the conditions for it are rarely present.

9. Conclusion

“Lexicalization” is often explained with respect to speakers’ “mental lexicon”, but psychological approaches do not explain language change.

Every speaker has a very rich mentalicon, but this does not explain *inventorization* – the acquisition of idiosyncratic properties by an expression. Maybe we do not need an explanation, because random change happens all the time.

Univerbation and **lexemization** are often involved in grammaticalization, but they are not constitutive for it. In fact, “word” and “lexeme” are primarily traditional notions that are probably due to descriptive artifacts (spelling conventions, conventions of writing traditional dictionaries).

Institutionalization is probably a superfluous concept, because the inventorium defines the conventions of a language – there is no reason to assume that there is a difference between “the language system” and “linguistic norms” (Coseriu), or between “potential words” and “actual words”.

Bauer (2001) mentions *incentivize*, which was first attested in 1989, and which he says was a potential word but not an actual word at the time.

- But:
- to the extent that *incentivize* has an idiosyncratic meaning, it became part of the inventorium in 1989
 - to the extent that *incentivize* does not have an idiosyncratic meaning, it existed before 1989, just as all novel sentences “exist” even if they have not been attested

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