Lexical flexibility: Expanding the empirical coverage

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Lexical flexibility (also called conversion, functional shift, heterosemy, polycategoriality, zero derivation, and many other terms) is when a lexical item is used for more than one discourse function—either to refer (as a noun), to predicate (as a verb), or to modify (as an adjective). In traditional terms, flexible words are those which can be used for multiple parts of speech. Examples of flexible words in English and Nuuchahnulth are shown below (English data are from the [Open American National Corpus](http://www.anc.org/)).

English (Indo-European > Germanic)

1. **N:** And the spots of **paint** would change every hundred degrees.

(OANC: FrancisClem)

**V:** One story does come to my mind though where you painted the foundation coating on the house and got tar all over you.

(OANC: BorelRaymondHydeII)

**A:** And it happened to be one of the rare **paint** jobs.

(OANC: sw2236)

Nuuchahnulth (Wakashan > Southern Wakashan)

1. **N:** watqšiƛ ʔaƛimt

watq‑ši(ƛ) ʔaƛa‑imt

swallow‑mom two‑past

completely.swallowed two

‘he swallowed two of them’ (Louie 2003: Qawiqaalth 57)

**V:** wik̓aƛ haʔukšiƛ ʔaƛiičiƛ

wik-ʼaƛ haʔuk-ši(ƛ) ʔaƛa-ʽi·čiƛ

not‑fin eat‑mom two‑incep

didn’t ate became.two

‘He (Mink) didn’t eat them and the crabs became two.’ (Louie 2003: Mink 266)

**A:** hiiɬtqyaap̓up ʔaƛa qʷayac̓iik

hiɬ-tqya·p̓i-up **ʔaƛa** qʷayac̓iːk

there‑back‑mom.caus **two** wolf

put.on.the.back two wolf

‘Two wolves put (the dead wolf) on their back.’ (Louie 2003: FoodThief 46)

In each of these examples, the same stem (paint for English and ʔaƛa ‘two’ for Nuuchahnulth) is used as a noun, a verb, and an adjective, respectively.

While many researchers have focused on how best to analyze cases like these in individual languages, it has usually been with the goal of showing that flexible words are in actuality members of some category X or Y in the language. Some researchers lump flexible words into the traditional categories of noun, verb, or adjective; other researchers invent new categories such as “contentives” or “non-verbs” (Hengeveld & Rijkhoff 2005). Still others embrace the idea of flexibility and claim that some or perhaps even all languages lack lexical categories entirely, at some level or another (Hopper & Thompson 1984; Gil 1993; Broschart 1997; Siddiqi 2018).

It is only recently that scholars have started to treat lexical flexibility as an object of study in its own right, rather than as a problem to be solved (Hengeveld 1992; Launey 1994; Rijkhoff 2000; Lois & Vapnarsky 2003; Rijkhoff 2003; Hengeveld, Rijkhoff, & Siewierska 2004; Launey 2004; Evans & Osada 2005; van Lier 2006; Rijkhoff & van Lier 2013; van Lier 2016; Vapnarksy & Veneziano 2017; Mithun 2019). As a result, we are just beginning to understand how lexical flexibility varies both within and across languages, and what the constraints and principles underlying that variation are. Studies show, for example, that flexibility can happen at the level of the root, stem, or even inflected word (Błaszczak & Klimek-Jankowska 2015; Mithun 2017; Mithun 2019). Additionally, Croft (2000; 2005) shows that lexical flexibility is constrained by certain typological markedness universals.

What we do *not* yet know is just how prevalent lexical flexibility is in the world’s languages, or even within particular languages. As a first foray at addressing this gap, in this talk I present the results of a quantitative corpus-based study which aims at expanding our empirical coverage of lexical flexibility. I examine data from corpora of English and Nuuchanulth (both of which are often claimed to be highly flexible languages) to determine just how flexible individual words in each language are, and how the two languages compare in terms of overall flexibility. To do this, I use a quantitative metric of the lexical flexibility of a word in a corpus developed specifically for this study. I also discuss the interaction of frequency and corpus dispersion with flexibility, and the semantic patterns that correspond to high or low degrees of flexibility for individual words.

I find that lexical flexibility in both English and Nuuchahnulth is more prevalent than has previously been assumed. I also show that the two languages differ significantly not just in their overall flexibility, but also in *how* that flexibility is realized. Words in English consistently exhibit flexibility, but to a somewhat marginal degree. Words in Nuuchahnulth, on the other hand, exhibit a high degree of flexibility, but almost entirely along the noun-verb dimension rather than the adjective dimension. For both languages, however, the most flexible words are property words (adjectives). Finally, the data show that frequency and corpus dispersion do correlate with higher degrees of flexibility, although the effect is a small one.

Taken together, the results of this study provide greater empirical support for a discourse-functional approach to lexical categories (Hopper & Thompson 1984; Croft 1991; Croft 2003) in which categories emerge from the ways that speakers utilize words in discourse. I conclude that lexical flexibility should be viewed as a natural result of the cognitive and diachronic processes at work in language, rather than as an exceptional phenomenon.

# References

Błaszczak, Joanna & Dorota Klimek-Jankowska. 2015. Noun and verb in the mind: An interdisciplinary approach. In Joanna Błaszczak, Dorota Klimek-Jankowska & Krzysztof Migdalski (eds.), How categorical are categories? New approaches to the old questions of noun, verb, and adjective (Studies in Generative Grammar 122), pp. 75–113. Mouton de Gruyter. doi:[10.1515/9781614514510-005](https://doi.org/10.1515/9781614514510-005).

Broschart, Jürgen. 1997. Why Tongan does it differently: Categorial distinctions in a language without nouns and verbs. Linguistic Typology 1(2): 123–165. doi:[10.1515/lity.1997.1.2.123](https://doi.org/10.1515/lity.1997.1.2.123).

Croft, William. 1991. Syntactic categories and grammatical relations: The cognitive organization of information. University of Chicago Press.

Croft, William. 2000. Parts of speech as typological universals and language particular categories. In Petra M. Vogel & Bernard Comrie (eds.), Approaches to the typology of word classes (Empirical Approaches to Language Typology 23), pp. 65–102. Mouton de Gruyter. doi:[10.1515/9783110806120.65](https://doi.org/10.1515/9783110806120.65).

Croft, William. 2005. Word classes, parts of speech, and syntactic argumentation. Linguistic Typology 9(3): 431–441. doi:[10.1515/lity.2005.9.3.391](https://doi.org/10.1515/lity.2005.9.3.391).

Gil, David. 1993. Parts of speech in Tagalog. Southeast Asian Linguistics Society 3: 67–90.

Evans, Nicholas & Toshiki Osada. 2005. Mundari: The myth of a language without word classes. Linguistic Typology 9(3): 351–390. doi:[10.1515/lity.2005.9.3.351](https://doi.org/10.1515/lity.2005.9.3.351).

Hengeveld, Kees. 1992. Non-verbal predication: Theory, typology, diachrony (Functional Grammar Series 15) Mouton de Gruyter.

Hengeveld, Kees & Jan Rijkhoff. 2005. Mundari as a flexible language. Linguistic Typology 9(3): 406–431. doi:[10.1515/lity.2005.9.3.391](https://doi.org/10.1515/lity.2005.9.3.391).

Hengeveld, Kees & Jan Rijkhoff & Anna Siewierska. 2004. Parts-of-speech systems and word order. Journal of Linguistics 40(3): 527–570. doi:[10.1017/S0022226704002762](https://doi.org/10.1017/S0022226704002762).

Hopper, Paul J. & Sandra A. Thompson. 1984. The discourse basis for lexical categories in Universal Grammar. Language 60(4): 703–752. doi:<10.2307/413797>.

Launey, Michel. 1994. Une grammaire omniprédicative: Essai sur la morphosyntaxe du nahuatl classique (Sciences Du Langage). CNRS.

Launey, Michel. 2004. The features of omnipredicativity in Classical Nahuatl. STUF 57(1): 49–69. doi:[10.1524/stuf.2004.57.1.49](https://doi.org/10.1524/stuf.2004.57.1.49).

Lier, Eva van. 2006. Parts-of-speech systems and dependent clauses: A typological study. Folia Linguistica 40(3–4): 239–304. doi:[10.1515/flin.40.3-4.239](https://doi.org/10.1515/flin.40.3-4.239).

Lier, Eva van. 2016. Lexical flexibility in Oceanic languages. Linguistic Typology 20(2): 197–232. doi:[10.1515/lingty-2016-0005](https://doi.org/10.1515/lingty-2016-0005).

Lois, Ximena & Valentina Vapnarsky. 2003. Polyvalence of root classes in Yukatekan Mayan languages (LINCOM Studies in Native American Linguistics). LINCOM Europa.

Louie, George. 2003. George Louie’s Nuu-chah-nulth (Ahousaht) texts with grammatical analysis (Endangered Languages of the Pacific Rim A2-028), ed. Toshihide Nakayama. Nakanishi Press.

Mithun, Marianne. 2017. Polycategoriality and zero derivation: Insights from Central Alaskan Yup’ik Eskimo. In Valentina Vapnarsky & Edy Veneziano (eds.), Lexical polycategoriality: Cross-linguistic, cross-theoretical and language acquisition approaches (Studies in Language Companion Series 182), pp. 155–176. John Benjamins. doi:[10.1075/slcs.182.06mit](https://doi.org/10.1075/slcs.182.06mit).

Mithun, Marianne. 2018. Categorial shift: Foundations, extensions, and consequences. Language Sciences 73: 10–31. doi:[10.1016/j.langsci.2018.08.014](https://doi.org/10.1016/j.langsci.2018.08.014).

Rijkhoff, Jan. 2000. When can a language have adjectives? An implicational universal. In Petra M. Vogel & Bernard Comrie (eds.), Approaches to the typology of word classes (Empirical Approaches to Language Typology 23), pp. 217–258. Mouton de Gruyter. doi:[10.1515/9783110806120.217](https://doi.org/10.1515/9783110806120.217).

Rijkhoff, Jan. 2003. When can a language have nouns and verbs? Acta Linguistica Hafniensia 35(1): 7–38. doi:[10.1080/03740463.2003.10416072](https://doi.org/10.1080/03740463.2003.10416072).

Rijkhoff, Jan & Eva van Lier (eds.). 2013. Flexible word classes: Typological studies of underspecified parts of speech. Oxford University Press. doi:[10.1093/acprof:oso/9780199668441.001.0001](https://doi.org/10.1093/acprof:oso/9780199668441.001.0001).

Siddiqi, Daniel. 2018. Distributed Morphology. In Audring, Jenny & Francesca Masini (eds.), The Oxford handbook of morphological theory (Oxford Handbooks in Linguistics), pp. 143–165. Oxford University Press. doi:[10.1093/oxfordhb/9780199668984.013.15](https://doi.org/10.1093/oxfordhb/9780199668984.013.15).

Vapnarsky, Valentina & Edy Veneziano (eds.). 2017. Lexical polycategoriality: Cross-linguistic, cross-theoretical and language acquisition approaches (Studies in Language Companion Series 182) John Benjamins. doi:[10.1075/slcs.182](https://doi.org/10.1075/slcs.182).

Vapnarsky, Valentina & Edy Veneziano. 2017. Lexical polycategoriality: Cross-linguistic, cross-theoretical and language acquisition approaches – An introduction. In Valentina Vapnarsky & Edy Veneziano (eds.), Lexical polycategoriality: Cross-linguistic, cross-theoretical and language acquisition approaches (Studies in Language Companion Series 182), pp. 1–33. John Benjamins. doi:[10.1075/slcs.182.01val](https://doi.org/10.1075/slcs.182.01val).

# Abbreviations

caus causative

fin finite

incep inceptive

mom momentaneous

past past