

Lexical integrity is the norm

or, “violating lexical integrity in a
specific and limited way”

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Lexical integrity hypothesis: **empirical claim** vs. **design choice**

LIH ✓

- Integrity is unmarked
- Apparent exceptions require explanation

LIH ✗

- Violations are unmarked
- Apparent preference for integrity requires explanation

Outline

- Review of the data for and against LI
- Three more general arguments for LI
- Case study: coordination of prefixes

Evidence of LI

1. **Ellipsis in coordination** (Simpson 1991: 51)
 - a. John liked the play, and Mary ~~liked~~ the movie.
 - b. *John liked the play, and Mary ~~disliked~~ it.
2. **Modification** (Williams 2007: 384)
 - a. [How complete] are your results?
 - b. *[How complete]-ness do you admire?
3. **Splitting a constituent** (Cappelle 2022: 188)
 - a. A masochist is [someone], I believe, [who likes pain].
 - b. *Someone who likes pain is a [masoch], I believe, [-ist].
4. **Preposing an element** (Cappelle 2022: 188)
 - a. Down_i went the weapons ____i on the ground.
 - b. *de_i-conflict ____i escalation

Morphology



Syntax

5. **Compounding** (Capelle 2022: 189)
 - a. $[[\text{over the fence}]_{\text{PP}} \text{gossip}]_{\text{N}}$
 - b. She sniffed and gave Dot a $[[\text{why-do-you-do-this-to-me}]_{\text{CP}} \text{look}]_{\text{N}}$.
6. **Inflection** (Carnie 2000: 91; [www](#))
 - a. He $[[\text{I-don't-care}]_{\text{IP}}\text{-d}]_{\text{V}}$ his way out of the room.
 - b. If you are $[\text{Thelma and Louis}]_{\text{NP}}\text{-ing}]_{\text{V}}$ please keep away from the cliffs.
7. **Derivation** (Bruening 2018: 6; Spencer 2005b: 83)
 - a. His general $[[\text{ok-with-less-than-we-should-aim-for}]_{\text{AdjP}}\text{-ness}]_{\text{N}}$ makes him an undesirable candidate.
 - b. a $[\text{why-does-it-have-to-be-me}]_{\text{CP}}\text{-ish}]_{\text{Adj}}$ expression

Syntax



Morphology

8. **Coordination of prefixes** (Siegel 1974: 147; Spencer 2005b: 82)
 - a. [mono- and tri]-syllabic
 - b. [pro- and en]-clitics
 - c. [socio- and politico]-economic
 - d. [pre- and even to some extent post]-war (economics)
 - e. [pro- as opposed to anti]-war
 - f. [hypo- but not hyper]-glycaemic

Choosing a side

(1–4)

**John liked the play, and Mary dis- it.*

**How completeness do you admire?*

**Someone who likes pain is a masoch-, I believe, -ist.*

**de-conflict escalation*

- Impressionistically more fundamental.
- ‘Core’ rather than ‘periphery’?

(5–8)

Over the fence gossip

*He I-don't-care-d his way out of the room.
a why-does-it-have-to-be-me-ish expression*

pro- as opposed to anti-war

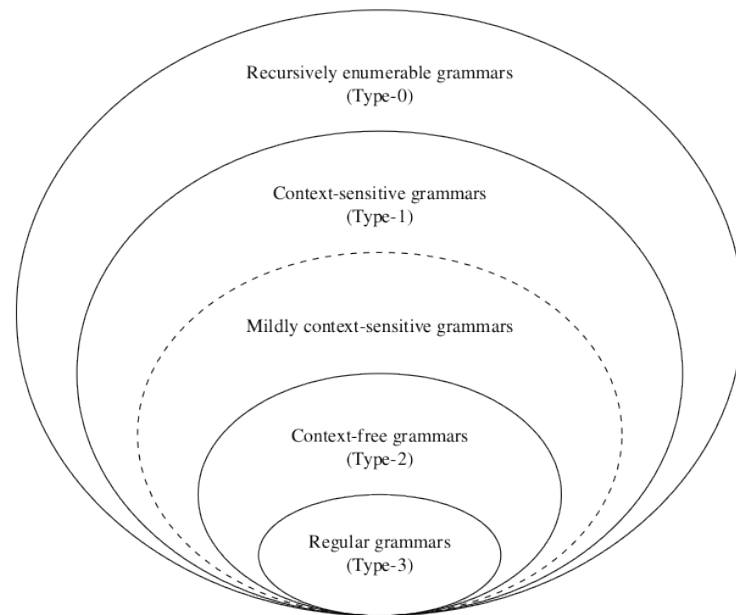
- Impressionistically more playful.
- ‘Periphery’ rather than ‘core’?

Three more general arguments for LI

Formal language theory

If morphology has the full power of syntax, why are there no clear morphological equivalents of unbounded or nested dependencies? [...] Similarly, why do we fail to find reduplication in the syntax, if there is no important formal distinction between morphology and syntax?
(Asudeh et al. 2013: 5)

- Morphology almost entirely finite-state
- Syntax almost entirely context-free



Free word order ≠ free morpheme order

mil-es coqu-um laud-at.
soldier-NOM cook-ACC praise-3SG.PRES.INDIC
'The soldier praises the cook.'

miles laudat coquum.
miles coquum laudat.
laudat miles coquum.
laudat coquum miles.
coquum miles laudat.
coquum laudat miles.

mil-es coqu-um laud-at.
*es-mil coqu-um laud-at
*mil-es um-coqu laud-at.
*mil-es coqu-um at-laud.
etc.

coquum laudat miles bonum
*coqu- laudat miles -um

LI is the norm

Any randomly selected stretch of discourse is likely to prove that morphologically complex words stay together as undivided units and that they tend not to include any above-word-level components.

(Cappelle 2022: 204)

LI violations as % of morphologically complex words



4%

LI violations as % of all words

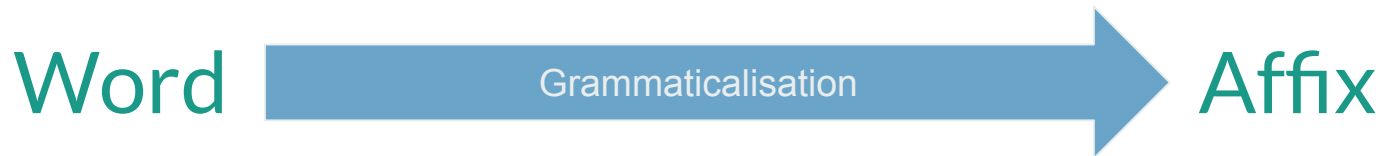


1%



So how do we explain the apparent exceptions?

Non-projecting categories



X^0

\widehat{X}

—

$X^0 \sqcap X^0, \widehat{Y}$

(Toivonen 2003)

$\widehat{X} \sqcap \widehat{X}, \widehat{Y}$

(Arnold & Sadler 2013)

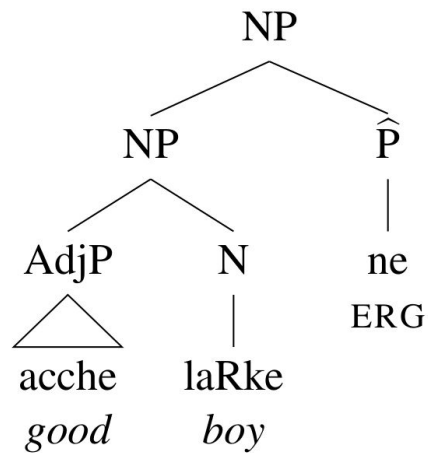
$XP \sqcap XP, \widehat{Y}$

(Spencer 2005a)

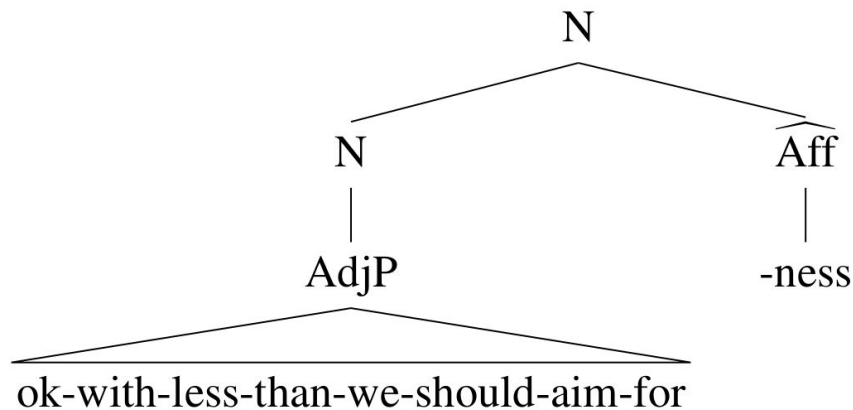
Explaining apparent LI violations:

- **Compounds** (Lowe 2015)
- **'Phrasal affixes'** (Spencer 2005a)

Phrasal affixes



(Spencer 2005b)



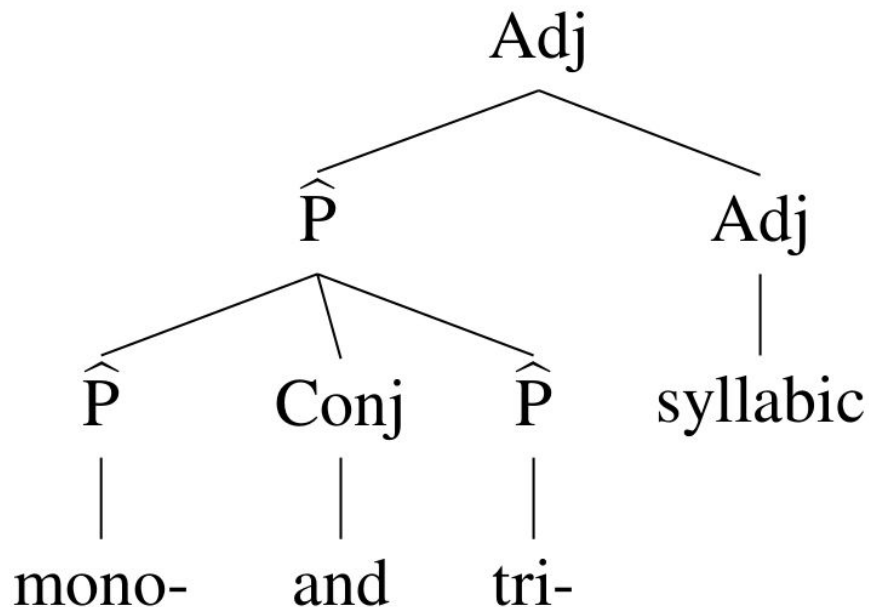
Coordination of prefixes in English

Simple cases

9. Coordination of prefixes

- a. [mono- and tri]-syllabic
- b. [pro- and en]-clitics
- c. [socio- and politico]-economic
- d. [pre- and post]-war (economics)
- e. [pro- as opposed to anti]-war
- f. [hypo- but not hyper]-glycaemic

Spencer (2005b): “prefixoids”



#NotAllAffixes

10. Not all prefixes

- a. *[un- or re]-tie
- b. *[im- or ex]-port
- c. *[ex- and se]-cretions

11. No suffixes (Strauss 1982: 43)

- a. *fear-[some and -less]
- b. *thought-[ful and -less]
- c. *interest-[ed and -ing]

Genuine affixes, not \widehat{X} s.

- need not attach to lexical roots

Class I vs. Class II prefixes (Siegel 1974: 115ff.)

- Class I = more affix-like
- Class II = more word-like
- compounds?

12. Cf. **-ish** (Norde 2010)

- a. It's easy-ish.
- b. A: Is everyone excited? B: Ish.
- c. Tomorrow's an easy day (ish):
graduation audit, voice lesson, CS
lab ...

Cross-linguistic variation

13. German

- a. ✓[Im- und Ex]-port

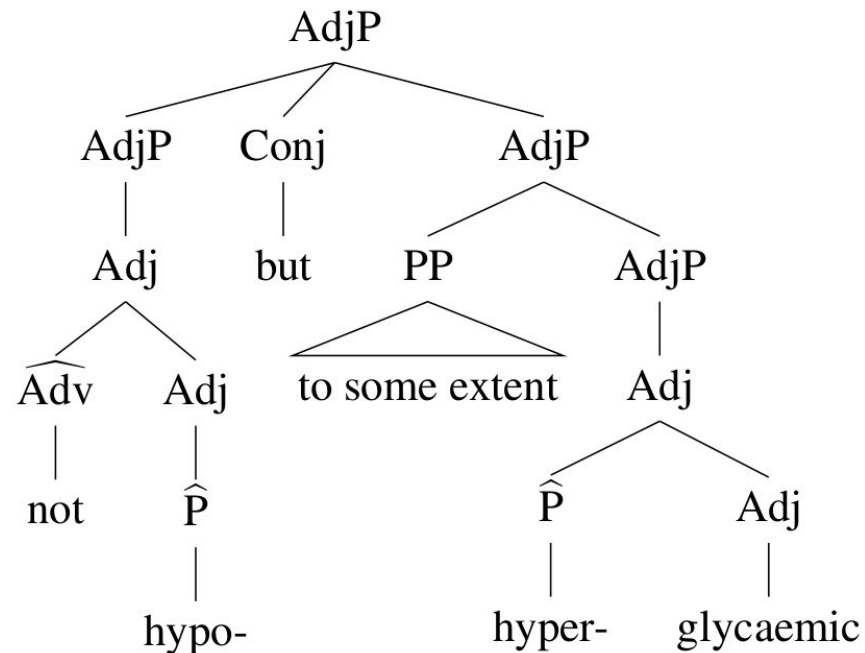
14. French

- a. ?*[mono- et tri]-syllabe

More complex examples

15. Complex cases

- a. totally pro- rather than simply not anti-Corbyn
- b. pre- as opposed to merely post-war
- c. not hypo- but to some extent hyper-glycaemic



Full lexicalisation

For some speakers, some prefixes (esp. *pre-/post-* and *pro-/anti-*) have become fully lexicalised

16. Coordination with full P

- a. Rival protests held in Croatia for and anti-abortion. ([www](#))
- b. The main storyline is there's an opportunity for a new gas line but there's a lot of local division between those who are pro and against it. ([www](#))
- c. Conservative MP Fiona Bruce asked the prime minister to give reassurance that the party supports the "highest standards of animal welfare" before and post-Brexit. ([www](#))
- d. a light but effective dual purpose oil which can be used as both a pre and after wax treatment ([www](#))

17. Standalone uses

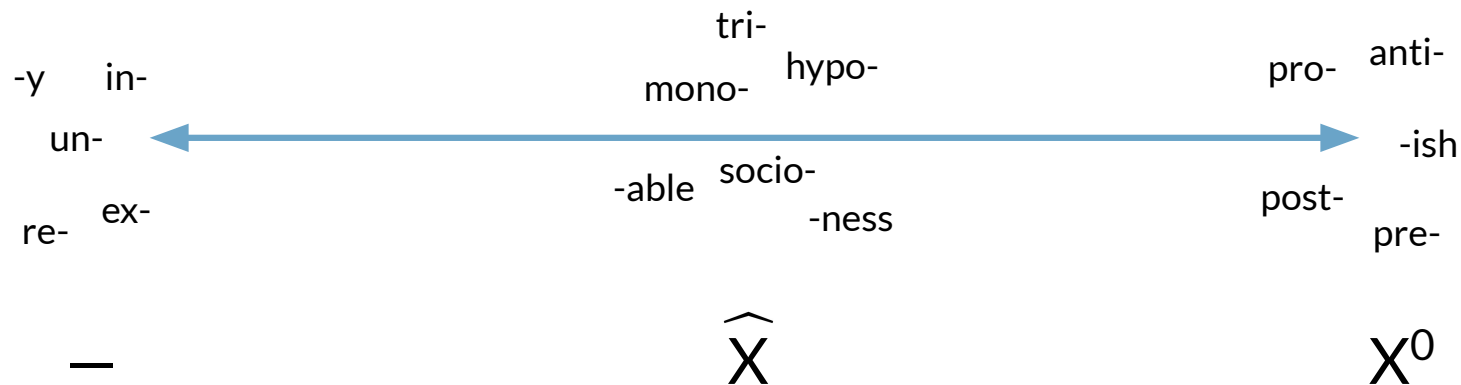
What's your stance on fox hunting?

- a. Oh, I'm totally anti! Barbaric sport!
- b. These days I'm rather pro, actually.

18. Attachment to phrases

- a. pre-[founding of Rome]
- b. post-[Alex's graduation]
- c. I'm anti-[Heather getting with Josh].

A spectrum of (de)grammaticalisation



Conclusion

Conclusion

- Good reasons to maintain LIH.
- But if we do, then we need an account of the apparent exceptions.
 - Compounds (Lowe 2015)
 - Coordination of prefixes
 - Derivational affixes on phrases (modification of Spencer 2005a)
 - Inflectional affixes on phrases ...?
- In this view, there *are* no exceptions to LI: apparent exceptions are “analysed away”.
- Is this question begging?
 - If it walks like a duck and quacks like a duck ...
- Given the formal and statistical arguments, the burden of proof is with the opponents of LIH.

Conclusion

- This is not to say that LIH-less approaches must be wrong!
- Rather, they must find ways to ensure the relevant facts are captured in the other direction (e.g. by resisting “aggressive decomposition”).
- But this does make them less perspicuous.
 - LI is the norm – exceptions should be explained exceptionally.
- The intermediary status of non-projecting words does this, by describing a syntactic atom which is nonetheless syntactically deficient.

Questions?

References

- Arnold, Doug & Louisa Sadler. 2013. Displaced dependent constructions. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG'13 Conference*, 48–68. CSLI Publications.
- Asudeh, Ash, Mary Dalrymple, and Ida Toivonen. 2013. Constructions with Lexical Integrity. *Journal of Language Modelling* 1(1). 1–54.
- Bruening, Benjamin. 2018. The lexicalist hypothesis: both wrong and superfluous. *Language* 94(1). 1–42.
- Cappelle, Bert. 2022. Lexical Integrity: a mere construct or more a construction? *Yearbook of the German Cognitive Linguistics Association* 10(1). 183–216.
- Carnie, Andrew. 2000. On the definition of X^0 and XP. *Syntax* 3(2). 59–106.
- Lowe, John J. 2015. The syntax of Sanskrit compounds. *Language* 91(3). e71–e115
- Norde, Muriel. 2010. Degrammaticalization: three common controversies. In Katerina Stathi et al. (eds.), *Grammaticalization: current views and issues*, 123–150. John Benjamins.
- Siegel, Dorothy C. 1974. *Topics in English morphology*. Ph.D. thesis, MIT.
- Simpson, Jane. 1991. *Warlpiri morpho-syntax: a lexicalist approach*. Kluwer Academic Publishers.

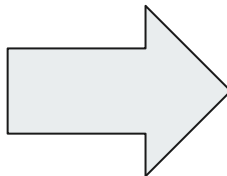
References

- Spencer, Andrew. 2005a. Case in Hindi, in Miriam Butt and Tracy Holloway King, editors, *Proceedings of the LFG'05 Conference*, 429–446. CSLI Publications.
- Spencer, Andrew. 2005b. Word formation and syntax. In Pavol Štekauer & Rochelle Lieber (eds.), *Handbook of word-formation*, 73–97. Springer.
- Strauss, Steven L. 1982. *Lexicalist phonology of English and German*. Foris.
- Toivonen, Ida. 2003. *Non-projecting words: a case study of Swedish particles*. Kluwer Academic Publishers.
- Williams, Edwin. 2007. Dumping lexicalism. In Gillian Ramchand & Charles Reiss (eds.), *The Oxford handbook of linguistic interfaces*, 353–382. Oxford University Press.

More data

9. **Coordination of stems** (cf. Spencer 2005b: 82)

- a. [write- or print]-able
- b. *[irrepair- or irreplace]-able
- c. [mouse- or rat]-like
- d. (both) [cake- and bread]-like
- e. *[milk- or cream]-y
- f. [cat and mouse]-y



Only words are good hosts

More elliptical examples

1. Paradigm shift [from anti-] [to pro-establishment] shocks Bitcoin community. ([www](#))
2. Many critically ill patients [...] will undergo transition from [early pro-] to [later anti-inflammatory] phenotypes. ([www](#))