UNIVERSIDAD DE GRANADA

When domains overlap: competition in verbal doublets in English

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AGENCIA ESTATAL DE INVESTIGACIÓN

Project ref.: FFI2017-89665-P

Introduction

Competition in morphology

Growing body of research in the last decades

International meetings	e.g. Vienna (2016)
	e.g. Košice (2022)
Specialized volumes	e.g. Santana-Lario & Valera (2017)
	e.g. Rainer et al. (2019)
Specialized papers	
Nouns	e.g. Arndt-Lappe (2014); Díaz-Negrillo (2017); Lara-Clares (2017)
Adjectives	e.g. Kaunisto (2007, 2009); Smith (2020)
Verbs	e.g. Plag (1999); Kjellmer (2001); Bauer et al. (2010)

Background

Competition defined as:

- same base
- same semantic category
- two or more different affixes
- no apparent semantic/distributional differences

e.g. *fluidify* vs *fluidize* ‘make fluid’ (Bauer et al. 2013: 272)

Cluster defined as ‘sets of synonymous derivatives morphologically related by their bases but formed with a different affix that can be grouped into doublets, triplets, etc.’ (Fernández-Alcaina 2017: 168)

Background

Competition between forms with the same base: Previous research

In reference manuals:

Bauer et al. (2013)

As examples of overlaps in restrictions

In references on verbal formation:

Plag (1999)

Gottfurcht (2008)

No profile of competition

No profile of resolution

In specialized papers:

Conversion vs *-en* suffixation:	Bauer et al. (2010)
-ify vs *-ize* suffixation:	Lindsay (2012)
	Lindsay & Aronoff (2013)
Conversion vs *-ize* suffixation:	Fernández-Alcaina (2017)
	Fernández-Alcaina & Cermák (2018)

Specific patterns

Aims

i. Describe the profile of competition in verb formation, i.e. without restriction to specific patterns

ii. Provide evidence on the profile of the resolution of competition in verb formation, i.e. whether resolved or not and why

Method

i. Data collection

ii. Data processing

Method

Data collection

	Included	Excluded
Prefixes	*be-* *en-/em-*	*a-* *for-* *in-/im-*
Suffixes	*-ate* *-ify* *-ize* *-en*	
Conversion		

Table 1. Pattern included and excluded from data collection (Quirk et al. 1985; Plag 1999; Bauer et el. 2013)

Method

Data collection: The *Oxford English Dictionary* and competition

Previous research on competition (e.g. Bauer 2006; Gottfurcht 2008; Díaz-Negrillo 2017; Fernández-Alcaina 2017; Lara-Clares 2017; Smith 2020)

Reliable source for data collection:

i. Extensive resource (600,000 words)
ii. Information regarding:
    a. etymological origin
    b. use (e.g. *obsolete*, *rare*, *archaic*)
    c. distribution (e.g. Mathematics, Medicine)
    d. lifespan of the entries through attestation dates

Method

Data collection: OED2 vs OED3 I

enlarge, *v.*

Text size: A A

View as: Outline | Full entry

Quotations: Show all | Hide all Keywords: On | Off

Pronunciation: Brit. /ɪnˈlɑːdʒ/, /ɛnˈlɑːdʒ/, U.S. /ɪnˈlɑrdʒ/, /ɛnˈlɑrdʒ/

Forms: Also Middle English **enlargen**, 1600s **enlardge**, 1500s–1700s **inlarge**.

Frequency (in current use):

Etymology: < Old French *enlarge-r*, *enlargir*, < *en-* (see EN- *prefix*²) + *large* (see ... (Show More)

I. To make larger.

1. *transitive*. To render more spacious or extensive; to extend the limits of (a territory, enclosure, etc.); to widen (boundaries). Thesaurus »

In later use this merges in the more generalized sense 2; the figurative applications in sense 3 however remain distinct.

c1400 *Mandeville's Trav.* v. 45 Thei may not enlargen it [Egypt] toward the desert, for defaute of watre.

c1420 *Pallad. on Husb.* I. 316 The fundament enlarge it half a foote Outwith the wough.

1535 *Bible* (Coverdale) Jer. xxxi. 38 The cite of yᵉ Lorde shalbe enlarged from the towre of Hananeel, vnto yᵉ gate of the corner wall.

*a*1687 W. Petty *Polit. Arithm.* 72 Any Prince willing to inlarge his Territories, will give, etc.

1749 D. Hartley *Observ. Man* I. ii. §1. 123 Grinding inlarges the sphere of their attractions.

1856 E. K. Kane *Arctic Explor.* II. xv. 164 He will rear himself upon his hind-legs to enlarge his circle of vision.

(Hide quotations)

This entry has not yet been fully updated (first published 1891; most recently modified version published online September 2021).

Entry history

Entry profile

Previous version: OED2 (1989)

In this entry:

en˙large

en˙largeable

en˙largeableness

enlarge a horse, to

enlarge an estate, to

enlarge one's heart, to

enlarge on, to

enlarge the hand, to

enlarge the heart, to

Figure 1. A screenshot of an OED2 entry (attestation dates not updated)

Method

Data collection: OED2 vs OED3 II

revolutionize, *v.*

Text size: A A

View as: Outline | Full entry

Quotations: Show all | Hide all Keywords: On | Off

Pronunciation: Brit. /ˌrɛvəˈl(j)uːʃn̩ʌɪz/, /ˌrɛvəˈl(j)uːʃənʌɪz/, U.S. /ˌrɛvəˈluʃəˌnaɪz/

Forms: 1700s– **revolutionise**, 1700s– **revolutionize**.

Frequency (in current use):

Origin: Formed within English, by derivation. **Etymons:** REVOLUTION *n.*, -IZE *suffix*.

Etymology: < REVOLUTION *n.* + -IZE *suffix*. Compare Dutch *revolutioneeren* ... (Show More)

1.

a. *transitive*. To imbue (a person or thing) with revolutionary principles or ideas; to make revolutionary. Thesaurus »

1795 tr. F. D'Ivernois *Short Acc. Late Revol. Geneva* 58 They seem determined to sap [Fr. *porter la sappe révolutionnaire*] the very foundation of the Edifice, by revolutionizing the principles of the rising generation.

1827 *Ann. Reg., Hist.* 255/2 Officers who had revolutionized their regiments and joined the rebels.

1870 R. ANDERSON *Hist. Missions Amer. Board* II. xii. 95 A reported threat..that..he would seize the prince and his sister, and revolutionize the government.

1908 G. K. CHESTERTON *Man who was Thursday* i. 19 You don't expect me..to revolutionise society on this lawn?

1966 V. VEZEY tr. M. D. Bonch-Bruevich *Tsarist Gen. to Red Army Commander* iii. 219 The Bolshevik Party's policy of turning the imperialist war into a civil war..had done much to revolutionise the army even before the downfall of the tsarist regime.

2000 L. SCHEIN *Minority Rules* i. 14 The broad dissemination of culture to revolutionize the masses was a hallmark of the Maoist period.

This entry has been updated (OED Third Edition, March 2010; most recently modified version published online June 2021).

Entry history

Entry profile

Previous version: OED2 (1989)

In this entry:

revolutioni'zation

revo'lutionized

revolutionizement

revo'lutionizer

revo'lutionizing

Figure 2. A screenshot of an OED3 entry (attestation dates updated)

Method

Data processing

Lemma	Sense	Base		Meaning			Senses						Status	Timeline	
		Form	Word class	Semantic category	Definition	Trans./ Intr.	In use	Obs./ Rare	Arch.	Dial.	Reg./ Dom.	Total		*	†
powder	4a	*powder*	N	ORNATIVE	apply cosmetic to skin	trans.	6	4	0	0	0	10	in use	1616	2002
powderize	1	*powder*	N		= *powder* 4a	trans.	1	1	0	0	0	2	obsolete	1800	1800
powder	8a	*powder*	N	RESULTATIVE	reduce to powder	trans.	6	4	0	0	0	10	in use	1400	1991
powderize	2	*powder*	N		reduce to powder	trans.	1	1	0	0	0	2	in use	1903	1998

Table 2. A template for the description of competing verbs based on the information provided by the OED and semantically classified according to Bauer et al. (2013: 282–286)

Method

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Method

Data representation

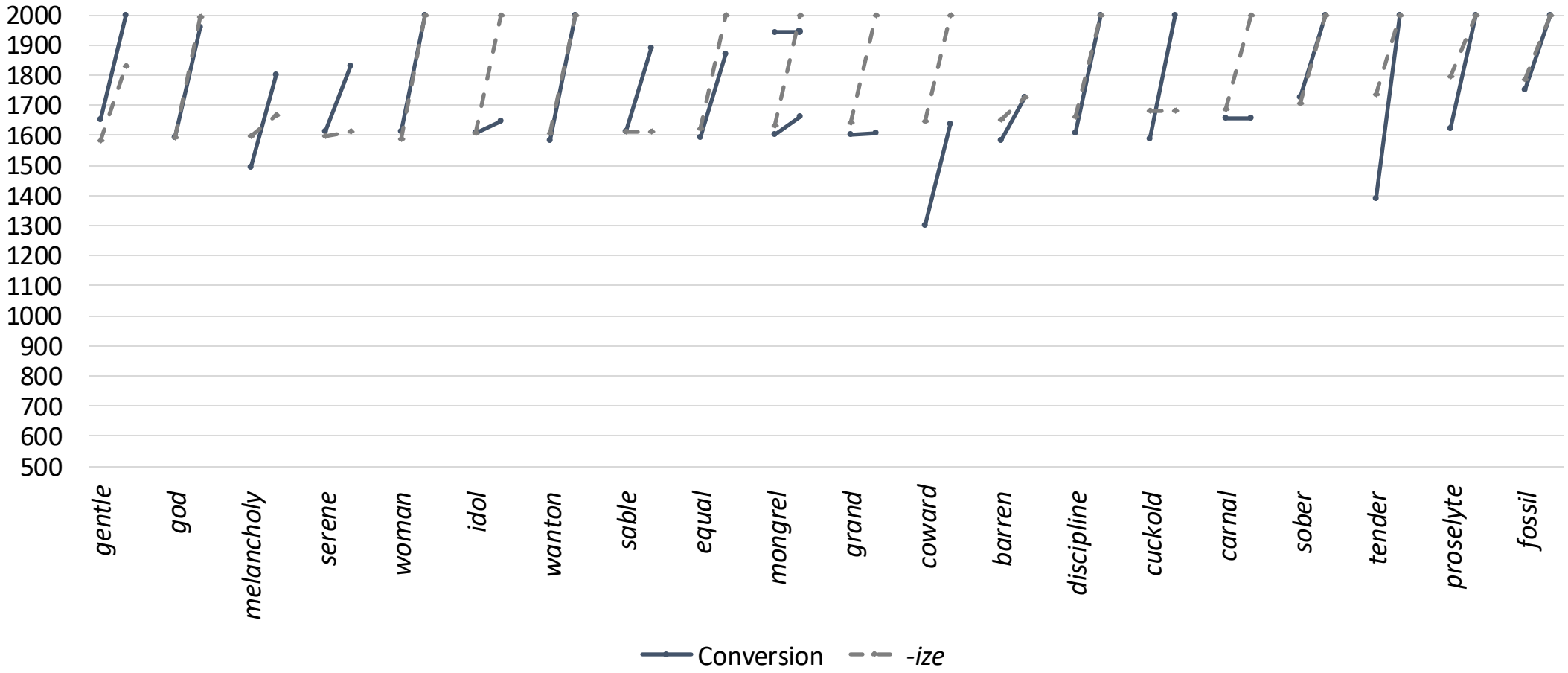

Figure 3. Timeline chart model for the historical development of verbal competing bases (adapted from Fernández-Alcaina 2017)

Results

Profile of competition: Number of competitors

Sample size: 351 clusters (i.e. 562 verbs) extracted from the OED3:

i. Two members: 320 clusters, i.e. 91.2%

ii. Three members: 30 clusters, i.e. 8.5%

iii. Four members: 1 cluster, i.e. 0.3%

Results

Profile of competition: Patterns

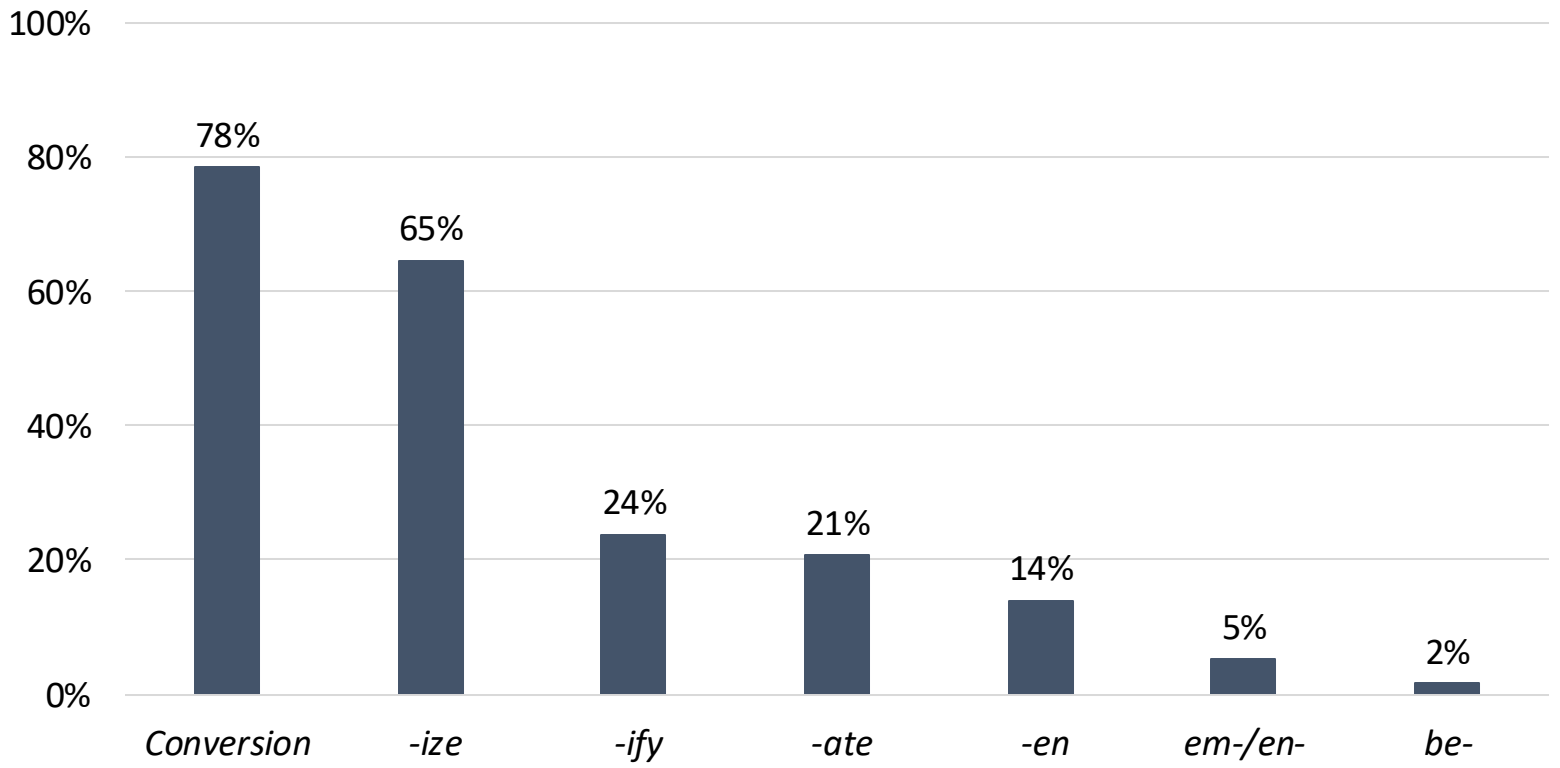

Figure 4. Patterns identified ordered by the number of clusters in which they appear

Results

Profile of competition: Clusters with three or more forms

	Pattern	Clusters	Example
1	Ø vs *-ate vs-ize*	12	*mission/missionate/missionize*
2	Ø vs *-ify* vs *-ize*	9	*immune/immunify/immunize*
3	*-ate* vs *-ify* vs *-ize*	3	*carbonate/carbonify/carbonize*
4	Ø vs *-en* vs *-ify*	3	*moist/moisten/moistify*
5	Ø vs *en-* vs *-ize*	2	*empatron/patron/patronize*
6	Ø vs *-en* vs *-ize*	1	*quiet/quieten/quietize*
7	Ø vs *-ate* vs *-ify* vs *-ize*	1	*fossil/fossilate/fossilify/fossilize*

Table 3. Patterns of competition identified in clusters with three or more forms

Results

Profile of competition: Doublets

	Pattern	Clusters	Example
1	Ø vs *-ize*	129	*photograph/photographize*
2	Ø vs *-en*	70	*black/blacken*
3	Ø vs *-ify*	26	*lady/ladify*
4	Ø vs *-ate*	21	*pendule/pendulate*
5	Ø vs *en-*	19	*power/empower*
6	Ø vs *be-*	7	*little/belittle*
7	*-ify* vs *-ize*	26	*etherize/etherize*
8	*-ate* vs *-ize*	21	*myelinize/myelinate*

Table 4. Patterns of competition identified in doublets

Results

Resolution of competition

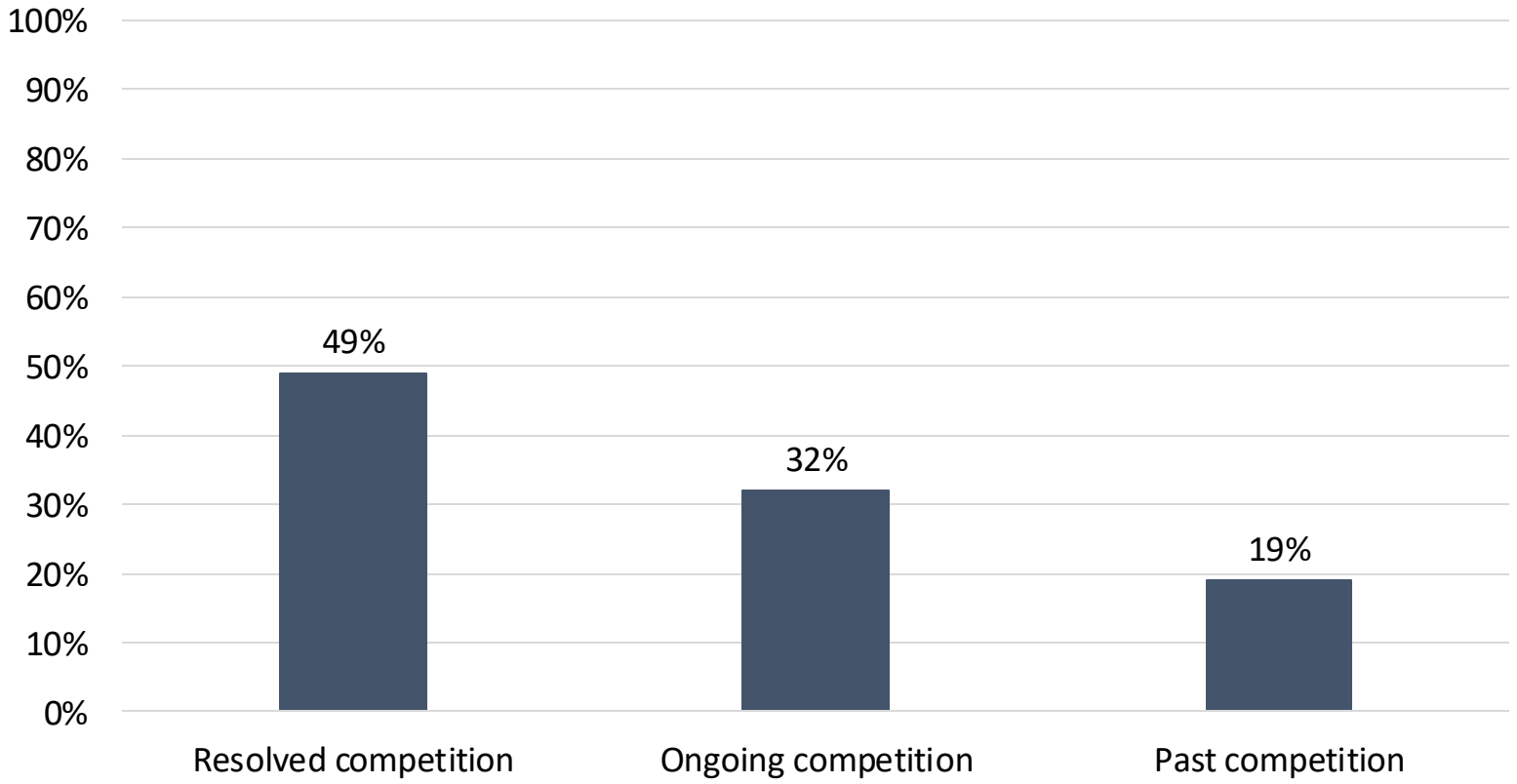

Figure 5. Clusters classified by the outcome of resolution

Results

Resolution of competition

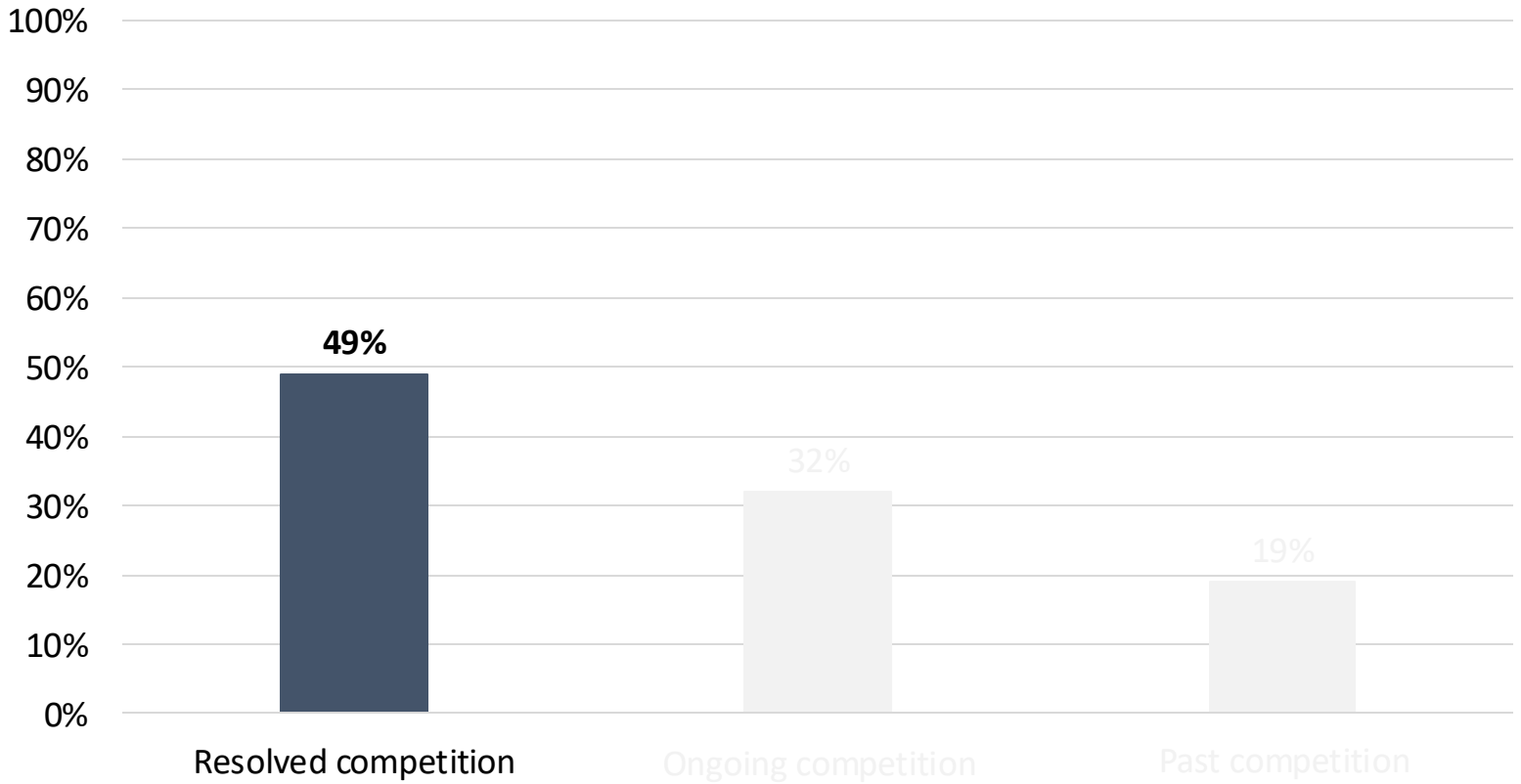

Figure 5. Clusters classified by the outcome of resolution

Results

Resolved competition: complete vs partial I

i. Complete (e.g. *statue*/*statuefy*/*statuize*): 97%

Lemma	Sense	Semantic category	Definition	Status	*	†
statue2	2		turn a living being into a statue	**rare**	1628	1941
statuefy	2	RESULTATIVE	turn a living being into a statue	in use	1868	2006
statuize	-		make a statue of; turn into a statue	**rare**	1718	1944

Table 5. An example of complete resolution

ii. Partial (e.g. *pauper*/*pauperate*/*pauperize*): 3%

Results

Resolved competition: complete vs partial II

i. Complete (e.g. *statue/statuefy/statuize*): 97%

ii. Partial (e.g. *pauper/pauperate/pauperize*): 3%

Lemma	Sense	Semantics	Definition	Status	*	†
pauperize	-		make a pauper of somebody	**in use**	1834	1992
pauper	-	RESULTATIVE	= *pauperize*	**in use**	1841	2002
pauperate	-		= *pauperize*	obsolete	1839	1839

Table 6. An example of partial resolution

Results

Resolved competition

i. Profile of resolution of competition

ii. Direction of resolution

Results

Profile of resolved competition I

i. Variable duration of competition

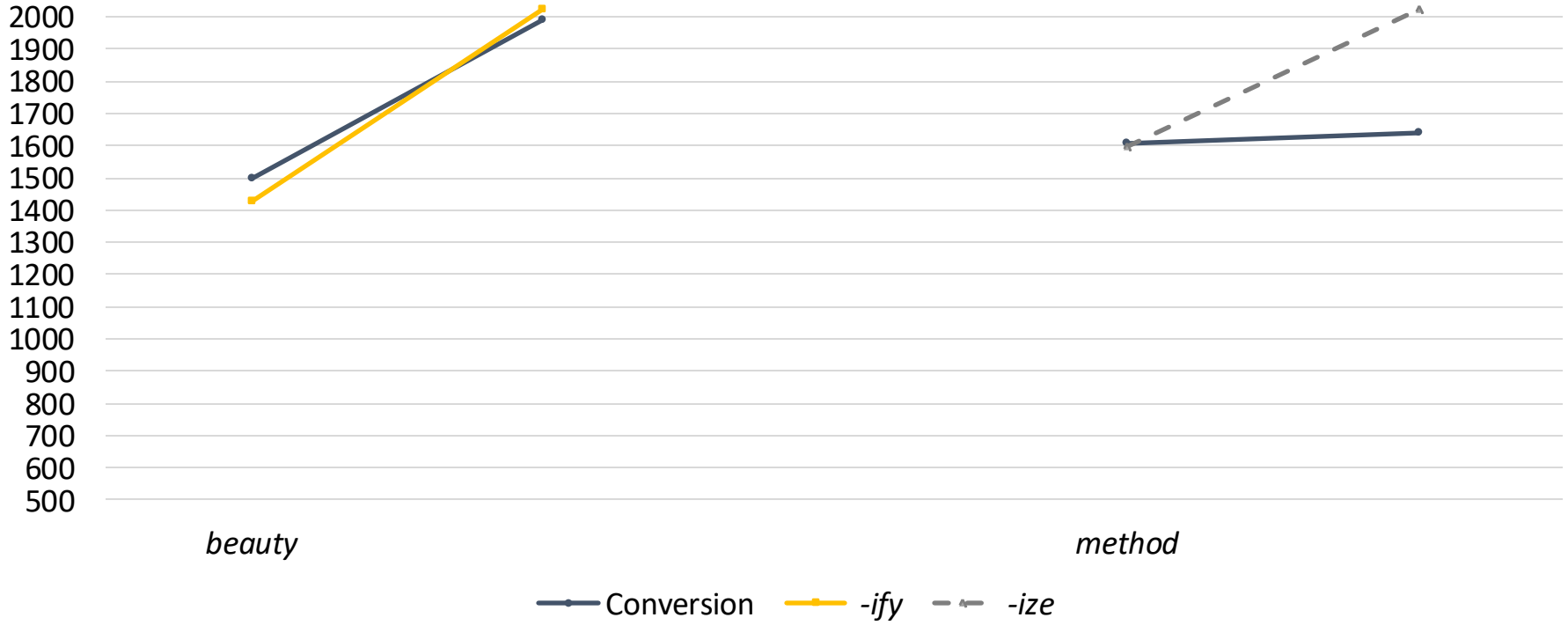

Figure 6. Examples of competitors attested within a short span of time

Results

Profile of resolved competition II

ii. Replacement

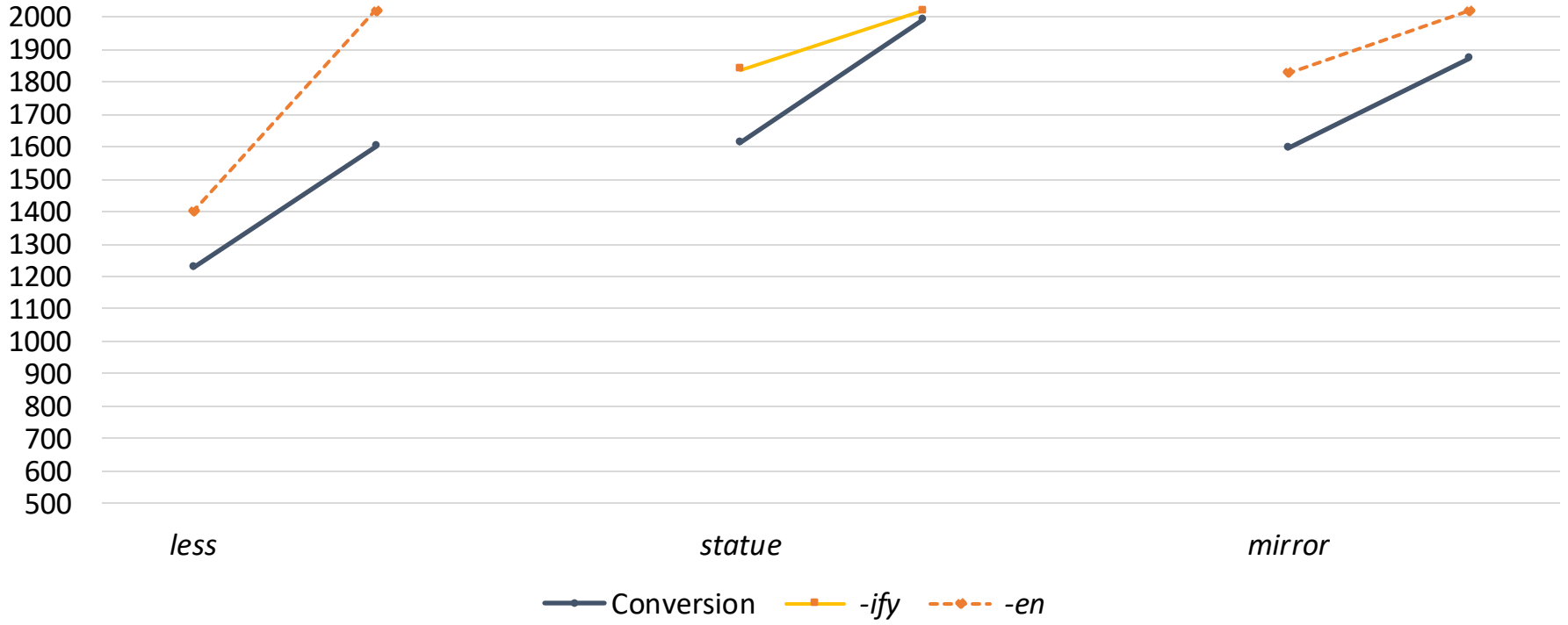

Figure 7. Examples of replacement

Results

Profile of resolved competition III

iii. The earliest attested form remains

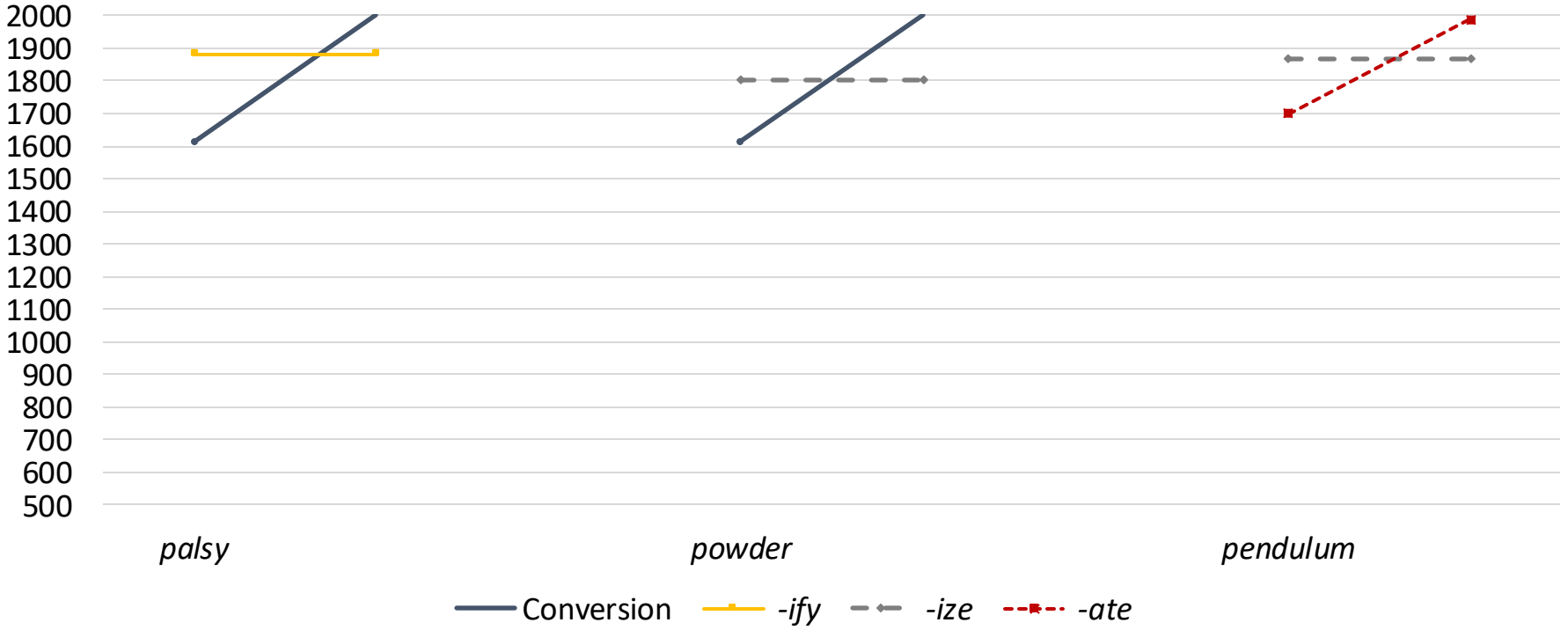

Figure 8. Examples of competitors where the earliest attested form remains

Results

Resolved competition

i. Profile of resolution of competition

ii. Direction of resolution

Results

Direction of resolution I

i. Pattern-governed

   e.g. Conversion vs -*en* suffixation

ii. Lexically-governed

   e.g. *personify/personate/personize*

Results

Direction of resolution I

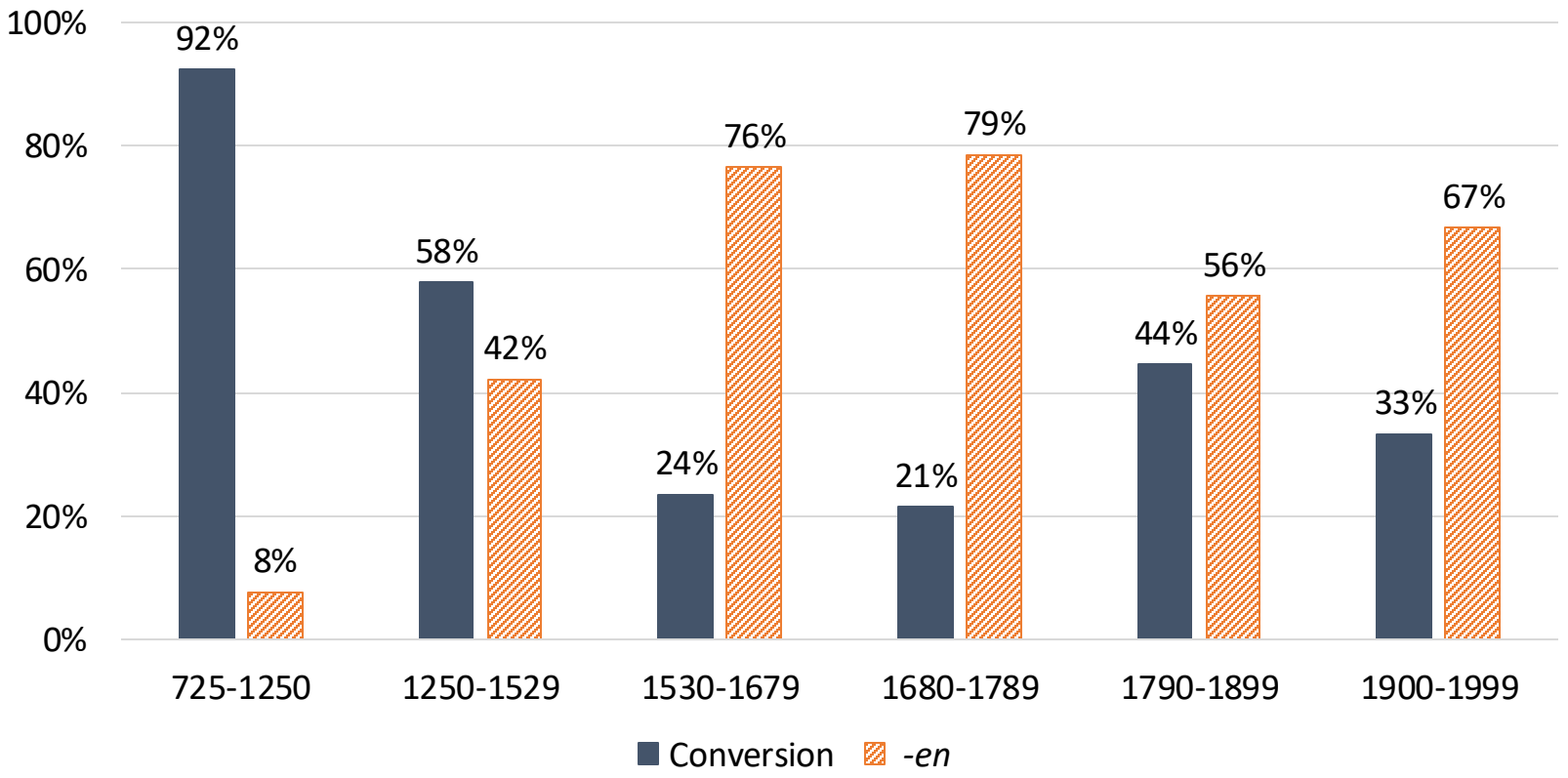

Figure 9. Diachronic development of the competition between conversion and *-en* suffixation

Results

Direction of resolution I

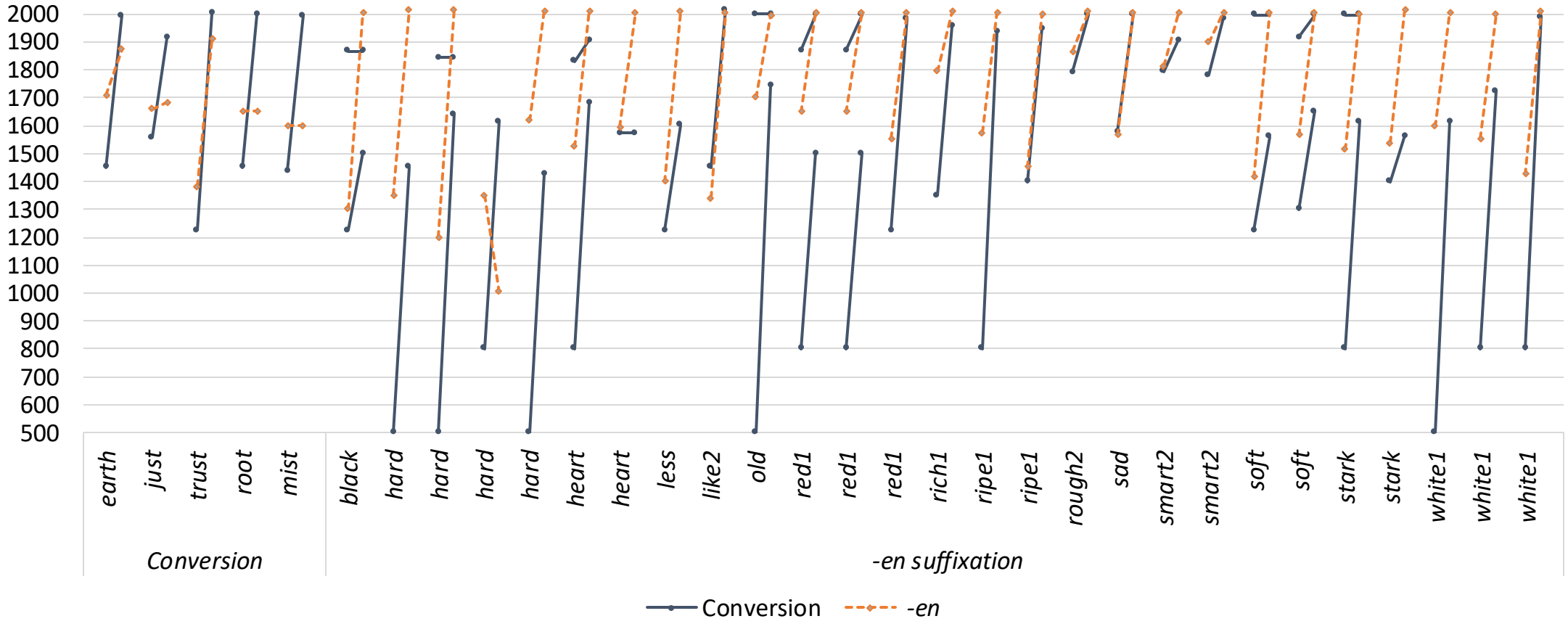

Figure 10. Timeline for the competition between conversion and *-en* suffixation

Results

Direction of resolution II

i. Towards a specific pattern

   e.g. Conversion vs -*en* suffixation

ii. Lexically-governed

   e.g. *passivate/passivify/passivize*

Results

Direction of resolution II

Lemma	Sense	Semantic category	Definition	Status	*	†
*carbonate*2	2		burn to carbon, *carbonize*	obsolete	1799	1831
carbonify	2	RESULTATIVE	reduce to carbon, *carbonize*	rare	1801	1984
carbonize	**1**		**reduce to carbon**	**in use**	1798	-
passivate	**1**		**make (metal) unreactive**	**Metallurgy and Chemistry**	**1913**	**-**
passivify	-	CAUSATIVE	= *passivate*, v.1	Manufacturing, rare	1907	1934
passivize	1		= *passivate*, v.1	Manufacturing, rare	1910	1983

Table 7. Clusters *carbonate*/*carbonify*/*carbonize* and *passive/passivate/passivize*

Conclusions

i. Highly heterogeneous:
   a. Patterns in competition
   b. Profile of resolution
   c. Direction of resolution

iii. Methodological considerations: the assessment at the level of senses is crucial because of:
   a. Different semantic classification
   b. Different stages of resolution

References

Arndt-Lappe, Sabine. 2014. Analogy in suffix rivalry: the case of English *-ity* and *-ness*. *English Language & Linguistics* 18(3), 497–548.

Bauer, Laurie. 2006. Competition in English word-formation. In Ans van Kemenade & Bettelou Los (eds.), *The handbook of the history of English*, 177–198. Malden, MA: Blackwell.

Bauer, Laurie, Rochelle Lieber & Ingo Plag. 2013. *The Oxford guide to English morphology*. 2nd edn. Oxford: Oxford University Press.

Bauer, Laurie, Salvador Valera & Ana Díaz-Negrillo. 2010. Affixation vs conversion: the resolution of conflicting patterns. In Franz Rainer, Wolfgang U. Dressler, Dieter Kastovsky & Hans Christian Luschützky (eds.), *Variation and change in morphology: selected papers from the 13th International Morphology Meeting, Vienna, February 2008*, 15–32. Dordrecht: John Benjamins.

Díaz-Negrillo, Ana. 2017. On the identification of competition in English derivational morphemes. The case of *-dom*, *-hood* and *-ship*. In Juan Santana-Lario & Salvador Valera (eds.), *Competing patterns in English affixation*, 119–162. Bern: Peter Lang.

Fernández-Alcaina, Cristina. 2017. Availability and unavailability in English word-formation. In Juan Santana-Lario & Salvador Valera (eds.), *Competing patterns in English affixation*, 163–206. Bern: Peter Lang.

Fernández-Alcaina, Cristina & Jan Čermák. 2018. Derivational paradigms and competition in English: a diachronic study on competing causative verbs and their derivatives. *SKASE Journal of Theoretical Linguistics* 15(3), 69–97.

References

Gottfurcht, Carolyn A. 2008. *Denominal verb formation in English*. PhD Dissertation. Northwestern University.

Kaunisto, Mark. 2007. *Variation and change in the lexicon: a corpus-based analysis of adjectives in English ending in* -ic *and* -ical. Amsterdam: Rodopi.

Kaunisto, Mark. 2009. The rivalry between English adjectives ending in *-ive* and *-ory*. In Roderick W. McConchie, Alpo Honkapohja & Jukka Tyrkkö (eds.), *Selected Proceedings of the 2008 Symposium on New Approaches in English Historical Lexis*, 74–87. Somerville, MA: Cascadilla Proceedings Project.

Kjellmer, Göran. 2001. Why *weaken* but not **strongen*? On deadjectival verbs. *English Studies* 82, 154–171.

Lara-Clares, Cristina. 2017. Competition in Present-Day English nominalization by zero-affixation vs -ation. In Juan Santana-Lario & Salvador Valera (eds.), *Competing patterns in English affixation*, 207–244. Bern: Peter Lang.

Lindsay, Mark. 2012. Rival suffixes: synonymy, competition, and the emergence of productivity. In Angela Ralli, Geert Booij, Sergio Scalise & Athanasios Karasimos (eds.), *Proceedings of the 8th Mediterranean Morphology Meeting – Morphology and the Architecture of Grammar*, 192–203. Patras: University of Patras.

Lindsay, Mark & Mark Aronoff. 2013. Natural selection in self-organizing morphological systems. In Fabio Montermini, Gilles Boyé & Jesse Tseng (eds.), *Morphology in Toulouse: Selected Proceedings of Décembrettes 7*, 133–153. Munich: Lincom Europe.

References

Plag, Ingo. 1999. *Morphological productivity: structural constraints on English derivation*. Berlin/New York: Mouton de Gruyter.

Proffitt, Michael. 2021. *The Oxford English Dictionary*. Available online at http://www.oed.com (Accessed 2021-09-06).

Quirk, Randolph, Geoffrey Leech, Sydney Greenbaum & Jan Svartvik. 1985. *A comprehensive grammar of the English language*. London: Longman.

Smith, Chris A. 2020. A case study of *-some* and *-able* derivatives in the OED3: examining the diachronic output and productivity of two competing adjectival suffixes. *Journal of English Lexicology* 16. Available online at https://journals.openedition.org/lexis/ (Accessed 2021-09-07).

Stockwell, Robert & Donka Minkova. 2009. *English words: history and structure*. 2nd edn. Cambridge: Cambridge University Press.

Valera, Salvador. 2020. Semantic patterns in noun-to-verb conversion in English. In Lívia Körtvélyessy & Pavol Štekauer (eds.), *Complex words: advance in morphology*, 311–334. Cambridge: Cambridge University Press.

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Appendix I

Past competition: *perfection/perfectionate/perfectionize*

Lemma	S	Semantic category	Definition	Status	*	†
perfect	**2**		**make perfect; bring to perfection**	**in use**	**1440**	**-**
perfection	-	CAUSATIVE	bring to perfection	**rare**	1651	1999
perfectionate	-		bring to perfection	**now rare**	1570	1993
perfectionize	-		bring to perfection	**now rare**	1805	1997

Triplet *perfection/perfectionate/perfectionize*

Appendix II

Ongoing competition: *fluoridate/fluoridize*

Lemma	S	Semantic category	Definition	Status	*	†
fluoridize	1	ORNATIVE	= *fluoridate*	in use	1940	2008
fluoridate	1		add fluoride to precent or reduce tooth decay	in use	1949	1996

Double *fluoridize/fluoridate*