

Morphophonology

Exceptionality (EGG 2025, Zagreb)

1 Introduction

- The putative examples of exceptionality we have considered thus far have all involved morphemic and/or lexical identity.
- Today we'll further expand our empirical and theoretical world to consider "exceptionality" conditioned by morphosyntactic context.

2 Slovak morphophonology

- The comprehensive lexical phonology of Slovak by Rubach (1993), henceforth R, contains a large number of morphophonological rules.

(1) MORPHOPHONOLOGICAL RULE: A rule is *morphophonological* if it performs a phonological change but has targets and/or triggers that are sensitive in part to morphosyntactic properties and *phonological* otherwise.

- R's grammar contains cyclic rules requiring the target to be:
 - part of a verb (3/8, 4/40),
 - part of a verb of a particular conjugation class (6/28),
 - part of a derived imperfective (3/53, 3/55, 3/56, 3/61, 5/33),
 - part of an infinitive verb (3/36),
 - part of an ordinal numeral (6/8), or
 - a prefix of a noun (6/14).

(2) PREFIX LENGTHENING (after R:166):

$V \rightarrow V: / \text{---}]_{\sigma} \cap [\text{Noun}$

- In prose, (2) says to lengthen a syllable- and root-final short vowel of a noun prefix.

(3) Examples of PREFIX LENGTHENING (R:165f):

a.	/pɔ-rɔd/	pórod	‘birth’
	/pre-xɔd/	priechod*	‘crossing’
	/u-trat-a/	útrata	‘loss’
b.	/vi-bux/	výbuch	‘explosion’
	/vi-plat-a/	výplata	‘wages’
c.	/za-bav-a/	zábava	‘fun’
	/za-mɔr-i-ε/	zámorie	‘oversees country’
d.	/na-lɛt/	nálet	‘air raid’
e.	/ɔd-lɛt/	odlet [†]	‘departure’

*Lengthening feeds a rule of diphthongization, producing *ie* from /ε:/.

[†]PREFIX LENGTHENING fails to apply here because there is no prefix-final vowel.

• R continues (166):

Prefix Lengthening has a considerable number of exceptions, for instance *za hranicou* ‘abroad’ – *za+hranic+a* ‘foreign countries’. In fact, as pointed out to me by Andrew Spencer, it should probably be regarded as a minor rule.

- If R is to be believed, there is a robust need for morphophonological rules in the world’s languages.

Close reading

- Embick 2012:§1
- What are other possibilities other than *stem storage* or *morphophonology*?
 - Many, many competing phonological rules (e.g., Albright et al. 2001, Bybee and Pardo 1981)
 - Separate *cophonologies* for different stems (e.g., Inkelas et al. 1997)
 - Phonological under- or pre-specification (e.g., Gorman and Reiss 2024, Harris 1985)
 - Whole word storage (i.e., *full suppletion*)

3 Spanish stem alternations

- Embick (2012), henceforth E, uses stem changes in Spanish to develop a theory of morphophonological rules.

(4) Spanish stem allomorphy:

	1SG.IND.	2PL.IND.	3PL.IND.	1PL.SBJV.		
a.	pego	pegáis	pegan	peguemos*	‘stick onto’	(-e-)
b.	niego	negáis	niegan	neguemos*	‘deny’	(-e-/-ie-)
c.	agosto	agostáis	agostan	agostemos	‘dry out’	(-o-)
d.	acuesto	acostáis	acuestan	acostemos	‘put to bed’	(-o-/-ue-)
e.	elido	elidís	eliden	elidamos	‘elide’	(-i-)
f.	expido	expedís	expiden	expidamos	‘publish’	(-i-/-e-)
g.	miento	mentís	mienten	mintamos	‘lie (to s.o.)’	(-e-/-ie-/-i-)

*Note that ⟨gue⟩ is pronounced [ge], not [gwe].

- All of these patterns are relatively common:
 - the “diphthongizing” (4bd) pattern is found in hundreds of verb stems across all three conjugations, and
 - the “raising” (4f) in over one hundred verb stems in the 3rd (-i-) conjugation.
- Diphthongization and raising look superficially similar, but:
 - They apply in somewhat different contexts; e.g., the raised stem occurs in the 1pl. subjunctive but the diphthongized stem does not.
 - Diphthongization and raising both occur within a single paradigm in (4g).

(5) Diphthongization in *pensar* ‘to think’ (with explicit stress, after E:29):

	1SG.	2SG.	3SG.	1PL.	2PL.	3PL.
PRS. IND.	piénso	piénsas	piénsa	pensámos	pensáis	piénsan
PRS. SBJV.	piéense	piéenses	piéense	pensémos	penséis	piénsen
PRET.	pensé	pensáste	pensó	pensámos	pensatéis	pensáron
IMPF.	pensába	pensábas	pensába	pensábamos	pensábais	pensában

- A morphosyntactic statement of this distribution would be complex and disjunctive:

(6) Morphosyntactic contexts for *pen-/pien-*:

- pien-*: sg. present indicatives, 3pl. present indicatives, sg. present subjunctives, 3pl. present subjunctives, 3pl. imperative, ...
- pen-*: all other contexts

- In contrast, there is a simple phonological generalization: a diphthong occurs when there is stem stress and a monophthong anytime stress falls on the desinence.

(7) Raising in *pedir* ‘to ask’ (after E:32):

	1SG.	2SG.	3SG.	1PL.	2PL.	3PL.
PRS. IND.	pido	pides	pide	pedimos	pedís	piden
PRS. SBJV.	pida	pidas	pida	pidamos	pidáis	pidan
PRET.	pedí	pediste	pidió*	pedimos	pedisteis	pidieron [†]
IMPF.	pedía	pedías	pedía	pedíamos	pedíais	pedían
IMPF. SBJV.	pidiera [†]	pidieras [†]	pidiera [†]	pidiéramos [†]	pidierais [†]	pidieran [†]
FUT.	pediré	pedirás	pedirá	pediremos	pediréis	pedirán
COND.	pediría	pedirías	pediría	pediríamos	pediríais	pedirían

*Here ⟨ió⟩ is [jo], not [io].

[†]⟨ie, ié⟩ is the diphthong [je], not [ie].

- Again the morphosyntactic statement of this distribution is complex and disjunctive:

(8) Morphosyntactic contexts for *ped-/pid-*:

- ped-*: 1pl./2pl. present indicatives, 1sg./1pl./2sg./2pl. preterites, all imperfectives, all futures, all conditionals
- pid-*: 1sg./2sg./3sg./3pl. present indicatives, all present subjunctives, all imperfect subjunctives, 3sg./pl. preterites

- E also notes that a stem suppletion account of raising would run counter to his theory of locality conditions on stem suppletion (Embick 2010) and concludes that “[a]n analysis that makes reference to morphosyntactic features thus looks very unpromising” (E:33).
- Again, a simple phonological statement is possible: “raising” is actually lowering of /i/.

(9) LOWERING (after Harris 1969:110f., E:33):

i → e / ___C₀i (condition: certain roots)

- A few important issues remain:
 - DIPHTHONGIZATION (not yet stated) needs to be conditioned to apply to (4bd) but not to the hundreds of non-alternating *e-* and *o-*stems like (4ac).
 - Similarly, LOWERING needs to be conditioned to apply to (4f) but not to a handful of non-alternating *i-*stems like (4e).
 - Is DIPHTHONGIZATION a major rule (with negative exceptions) or a minor rule (with positive exceptions), and in what contexts? What about RAISING?
 - Interactions between DIPHTHONGIZATION and RAISING in (4g) need worked out.
- We’ll take up some of these questions tomorrow.

References

- Albright, Adam, Argelia Andrade, and Bruce Hayes. 2001. Segmental environments of Spanish diphthongization. *UCLA Working Papers in Linguistics* 7:117–151.
- Bybee, Joan, and Elly Pardo. 1981. Morphological and lexical conditioning of rules: experimental evidence from Spanish. *Linguistics* 19:937–968.
- Embick, David. 2010. *Localism versus Globalism in Morphology and Phonology*. MIT Press.
- Embick, David. 2012. Contextual conditions on stem alternations. In *Romance Languages and Linguistic Theory 2010: Selected Papers from Going Romance Leiden 2010*, ed. Irene Franco, Sara Lusini, and Andrés Saab, 21–40. John Benjamins.
- Gorman, Kyle, and Charles Reiss. 2024. Metaphony in Substance Free Logical Phonology. Ms. LOA-004. URL: <https://lingbuzz.net/lingbuzz/008634>.
- Harris, James W. 1969. *Spanish Phonology*. MIT Press.
- Harris, James W. 1985. Spanish diphthongisation and stress: a paradox resolved. *Phonology* 2:31–45.
- Inkelas, Sharon, Orhan Orgun, and Cheryl Zoll. 1997. The implications of lexical exceptions for the nature of grammar. In *Derivations and Constraints in Phonology*, ed. Iggy Roca, 393–418. Oxford University Press.
- Rubach, Jerzy. 1993. *The Lexical Phonology of Slovak*. Clarendon Press.