

Pronoun reduction as a window into the syntax-phonology interface

Heather Newell

newell.heather@uqam.ca

heathernewell.ca

UQÀM | **Département de linguistique**

(and Tobias Scheer, UCA)

UT Austin

April 6, 2026

Pronoun reduction : Segmental subsets

English pronouns

- a. I like **them** [ðém]
- b. I like'm [m̩]

Haitian Creole pronouns

- a. Jean remet **moi** liv la [mwé]
- b. Jean wem [m]
'J. gave me ...'/'J. saw me'

Pite Saami pronouns

- a. já, **männå** aj mujhtav [món:ɔ]
'yes, I also remember...'
- b. iv **mån** diede [mɔn]
'I don't know'
(Wilbur, 2014, 139, 124)

Hebrew possessive pronouns

- a. **Shelahem** [ʃelaém]
- b. Hasefer **shelahem** [ʃlaem]
'Theirs'/'Their book'

BCMS pronouns

- a. **Njima** je dosadno [njíma]
'They are bored'
- b. Mnogo **im** je pomogao [im]
'He helped them a lot'

Bambara pronouns

- a. ...**Nè** hámi dè [nè]
'my worry (foc)'
- b. **Ñ** mòden-w [ñ]
'my grandchild-art.pl'
(Vydrin, 2023, 302, 300)

A little history of function word reduction

Early 70s : Reduction is phonological

- ▶ Zwicky (1970) examines auxiliary reduction in English, deriving weak from strong forms in all cases.
- ▶ (Selkirk, 1972, 22ff) takes the same view: in all cases, weak items are derived from strong items.

Since the late 70s : (at least some) Reduction is allomorphy

- ▶ Later in the 1970s, Zwicky (1977) introduces a distinction between simple and special clitics: for the latter, he says, “it is unlikely that the weak forms are related to the strong ones by phonological rules of any generality” (p. 4).
- ▶ Thus Kaisse (1983) rejects a phonological analysis for function word reduction following the argument that the phonological rules needed to account for the loss of function-word-initial consonants would have to be specific to particular lexical items.
- ▶ Zwicky & Pullum (1983, 505 note 3) follow this position: “[i]n line [...] with Kaisse’s analysis, we do not require that simple clitics derive synchronically from full forms by processes associated with casual or fast speech.”

“We argue ... that this conclusion may be somewhat hasty.”

All statements above from Newell & Scheer (to appear), also coming soon. 7

Internal structure of English pronouns

English pronouns are (generally) bi-morph-ic

Me

mi

Us

w s

You

jɔ i

Him

hɪ m

Her

hɪ ɹ

It

ɪ t

Them

ðɛ m

Table 1 : The underlying representations of Accusative Pronouns

N.B. that **w** is shorthand for a labiovelar segment that is syllabified as a C before a V, and as a V before a C. It might be more accurate to transcribe it as **ʌ**.

The English pronominal morphemes

What do they project?

- ▶ **Person/φ** conditioned by case and number
- ▶ **??** conditioned by case, person, number
 - D(ef)? (Postal, 1969; Déchaine & Wiltschko, 2002); Case/Poss? (Bernstein & Tortora, 2005)

On the promiscuous allomorphy in functional domains:

- ▶ Ilić (2025) : Allomorphy is inward and outward in pronominal domains.
- ▶ Moskal (2015) : Pronominal domains are one domain for allomorphy.

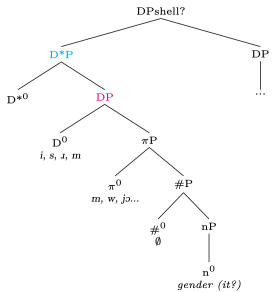
What is important for the analysis to come

- ▶ Pronouns, probably even clitics, are phrasal.
- ▶ The functional structure in the left periphery of weak pronouns and clitics is deficient (à la Cardinaletti & Starke (1999)).
- ▶ This distinction in syntactic size has effects on:
 - where pronouns move to in the clause.
 - whether pronouns constitute independent phases/cycles.

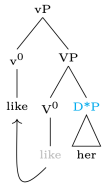
Assumptions about the morphosyntactic structure of pronouns

Internal structure of strong and weak pronouns in English : X^*P s and XP s

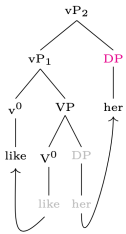
Syntactic positions of strong and weak pronouns in English : X^*P s and XP s



a. Strong



b. Weak



N.B. that π^0 could raise to D^0 or D^0 would lower to π^0 . K(ase)P is not represented, but I assume it's there somewhere, as a part of D^*P .

For various parts of the representations above: Holmberg (1986); Cardinaletti & Starke (1999); Harley & Noyer (1999); Wallenberg (2008); Selkirk (2014); Arregi & Hewett (2025); Ilić (2025).

The cyclic spell out of strong and weak pronouns

Strong pronouns

- ▶ Spell-out is triggered by a phase head within the D*P
 - A strong pronoun is spelled out in its own cycle
 - Cyclic spell out triggered by a phase head leads to the insertion of an empty syllable (CV) at the left edge of the spell out domain (Scheer, 2012). See also Scheer (2016) on how syllabic structure differs from melodic structure at the interface.

Weak pronouns

- ▶ Spell-out is not triggered by a phase head within the DP
 - A weak pronoun will undergo Apex spell out. Apex spell out is the interpretation of the top of any command chain. This is not triggered by a phase head and therefore does not trigger insertion of the empty CV.
 - If the weak pronoun is at the left edge of the next strong phase, it will have access to this later phasal CV, otherwise it will not.

For an overview of phases and spell-out domains and the many questions they evoke, see Newell (in press).

Some additional evidence that strong/weak functional domains are/are not phases

Moskal (2015) on dominance in harmony domains

Dominant prefixes are found on function words but not on lexical words, indicating that prefixes are not separated from their base by phase boundary in the case of function words. these function words include pronouns.

Bešlin (2021)

Strong, non-clitic pronouns in SC, unlike non-pronominal nominal arguments, do not allow either Left-Branch or Adjunct Extraction. This offers positive evidence for D*P as a potential structure for strong pronouns.

Notes on the URs of English pronouns

There is a lot of floating structure

- ▶ All pronouns (save genitive *its*) enter the phonological computation with a single CV syllable
 - This CV is part of the UR of the morphs in D^0 and not of those in π^0 . We will see evidence for this below.
- ▶ Only final Cs are underlyingly linked to syllable structure (except /ɪ/).
- ▶ Segments that alternate with zero are lexically floating (as are some that do not).

A justification for underspecification (incl. floating)

- ▶ Patterns in surface forms are used by learners to construct URs
- ▶ Alternations → underspecification (e.g., V-Harmony, liaison)
 - N.B. that both allomorphy and underspecification involve memorizing something about a lexical item's UR. It is assumed here that allomorphy is a last-resort.

Beware of your Familiar Language Abstraction Bias (FLAB)

A linguist's degree of fluency in a language L is inversely proportional to the degree of abstractness that linguist will entertain for analyses of L.

The phonological URs of English pronouns

I	We	You	
C V	C V	C V	
a i	w i	jʊ i	
He	She	It	They
C V	C V	C V	C V
hɪ i	ʃ i	ɪ t	ðe i

Table 1 : The underlying representations of Nominative Pronouns

The phonological URs of English pronouns

Me	Us	You		
C V	C V	C V		
m i	w s	jə i		
Him	Her	It	Them	
C V	C V	C V	C V	
hɪ m	hɪ ɹ	ɪ t	ðe m	

Table 1 : The underlying representations of Accusative Pronouns

The phonological URs of English pronouns

English pronouns are (minimally) bimorphemic

My	Our	Your		
C V	C V	C V		
m ai	w ɹ	jɔ ɹ		
His	Her	Its	Their	
C V	C V	C V C V	C V	
hɪ S	hɪ ɹ	ɪ t S	ðe ɹ	

Table 1 : The underlying representations of Genitive Pronouns

Stress as syllabic space. English /h/ is a geminate.

English Stress and Aspiration

	Followed by stress		Elsewhere	
a.	ə't ^h amɪk	'atomic'	'æɾəm	'atom'
	p ^h ələ't ^h ɪʃən	'politician'	'p ^h ələtɪks	'politics'
b.	və'hɪkjəlɪ	'vehicular'	'vijəkəl	'vehicle'
	pɾə'hɪbɪt	'prohibit'	pɾəwə'bɪʃn	'prohibition'

['vijəkəl]



[və'hɪkjəlɪ]



The derivation of English Strong pronouns

He loves her : [C*P [D*P he] [_vP [D*P he] loves [D*P her]]]

Here we have four phases. The first phase is the D*P object of the verb, *her*.

Spell out of D*P [hɜɪ]: insertion of phase CV and stress CV

a. UR

C V
h ɪ ɪ

b. insert phasal CV, linking
of segments

C V C V
| | \ |
h ɪ ɪ

c. insert stress, stress CV,
linking of segments

*
C V C V C V
| | \ | \ |
h ɪ ɪ

N.B. that /ɪ-ɪ/ → [əɪ], [ɪ] (the vowel is rhotacized).

- ▶ The English stress algorithm is only triggered when a form has at least one linked vocalic segment and the syllabic tier meets word minimality (CVCV).
- ▶ Association of floating segments applies from left to right.
- ▶ Gemination of /h/, spreading to the left, occurs after left to right spreading.

The derivation of English Strong pronouns

Spell out of $[[\text{I}\Lambda\text{vz}]]$ $[\text{h}\text{ə}\text{I}]$



loves notes

- ▶ In CVCV phonology, empty VC-sequences are elided (Gussmann & Kaye, 1993).
- ▶ FEN = Final Empty Nucleus. Final empty nuclei are the CVCV tool to account for the fact that final codas are onsets (e.g., Scheer (2004) within CVCV, and Côté (2011) for a pan-framework overview)
- ▶ FENS are final in a domain. English verbs are computed in two phases (hence the two FENS. The /z/ is lowering from T⁰. See Newell (under review, 2025).

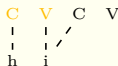
The derivation of English Strong pronouns

Spell out of D*P [hij]: insertion of the phasal CV and the stress CV

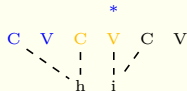
a. UR



b. insert phasal CV, linking of segments

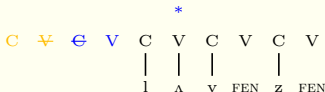


c. insert stress, stress CV, linking of segments



N.B. that /i-i/ → /i/.

Final string : [hij lʌvz həɪ]



you: evidence for the lexically-floating status of /j/

- ▶ There is phonological evidence that the initial Cs are not underlyingly linked.
- ▶ This is consistent with the proposal that exponents of π are not lexicalized with syllabic structure: you cannot be underlyingly linked to a syllable that belongs to another morph.

/j/ lexically associated: *[jə]

1. lexical		2. phon. computation					
C	V	C	∅	∅	V	C	V
j	u					j	u

/j/ lexically floating: [juw]

1. lexical		2. phon. computation					
C	V	C	V	C	V	C	V
j	u		j	u			

Recall that jə-i → ju.

The derivation of English Weak pronouns

They like them : [CP [DP They] [_{vP2} [_{vP1} [DP They] like [DP them]]][DP them]]]

Here we have one phase, and three Apex spell outs (DP, DP, CP). The first phase sent to spell-out is the verb, as the weak DP object has undergone movement to adjoin to vP.

Spell out of [laɪk]



- ▶ The verb must spell out independently from the pronoun, as the pronoun never impacts the placement of stress.
 - e.g., I *like*'em, I *imá*gine'em, I *co-ór*dinate'em.
- ▶ This entails that the pronoun does not undergo head movement into the domain of the verb (cf. Selkirk (2014)). See Newell (2021) for arguments that affixes spelled out in the same cycle as the root are always within its phonological domain.

The derivation of English Weak pronouns

Spell out of [lʌɪk] [əm]/[m]

- ▶ After VI and phonology in the DP (Apex spell out), and vP2 linearization



- ▶ Subsequent vP2 phonological computation



N.B. Apex spell out does no obvious work for us here, but it will in another derivation of ‘I’ in ‘Am I here?’, below.

Note also that short Vs will undergo regular reduction to ə.

They, Their and Them have the same δ

The UR of the case morpheme determines whether the δ will be variably pronounced



- ▶ The vowels coalesce in *they*, resulting in there always being a C-position for /ð/ to link to in the NOM.
- ▶ The semi-vocalic nature of /ɪ/ in English means that a V-/ɪ/ sequence will both be able to occupy the V position in the GEN even when it is weak, resulting in there always being a C-position for /ð/ to link to.
- ▶ The linked /m/ in the ACC results in the /ð/ only being pronounced when an additional C-position is provided by the computation.
- ▶ The UR vowels in *the* [ðə]/[ðij], *these* [ðijz], *those* [ðowz], etc. results in *them*, predictably, being the only alternating [ð] form: the DEF morpheme has a single UR.

Phases vs Apex spell-out

The Apex problem

- ▶ Grohmann et al. (2017) discuss what they call the *Apex paradox*:
 - The top ‘edge’ of a syntactic object will never be spelled out by a phase head.
 - The top ‘edge’ of a syntactic object must nonetheless be spelled out.
- ▶ This pattern was also discussed in Uriagereka (1999), but not in relation to phases, per se.
 - Each command chain must spell out before merger to a larger object, for reasons of linearization.
- ▶ And this apex spell out is also assumed in (Moskal, 2015, 62):
 - “Indeed, let us assume, in addition to category-defining nodes, that the highest node of an extended projection (Grimshaw 2005) also functions as a cyclic node (see also den Dikken 2007, Wurmbrand 2012, Bošković 2014).”

Apex spell out

- ▶ The top nodes of each syntactic object/command chain will be sent to spell out independently.
- ▶ **Additional proposal:** This automatic spell out, as opposed to phasal spell out, does not mark its left edge with empty syllabic space.

'Am I' spelled out with aux?

Weak pronouns and apex spell out

[_{CP} am [_{DP} I] [_{TP} am [_{vP} late]]] "Am I late?"

Apex spell out : Spell out of non-phasal DP before CP

- ▶ If the pronoun is spelled out in the same cycle as the auxiliary the floating vowel will attach to the final empty nucleus of the preceding word and will be able to spread into its lexical V. If this were the correct derivation, we would not be able to realize the reduced form of the pronoun in this sentence, counter to fact: ([mʌlejt]).
- ▶ This apex spell out constitutes phonological evidence for the phrasal structure of weak pronouns : two heads in the same spell out domain would spell out together.

Apex spell out of 'I'

a. UR

C V

a i

b. Without Apex spell-out *[aj]

C V C V C V

| | \ \
æ m a i

c. With Apex spell-out [ʌ/ə]

C V C V C V

| | /
æ m [a i]

N.B. this is applicable to all V-initial pronouns : 'I' and 'our' ('us' will not emerge in an appropriate position in Standard Canadian English). And note that spreading to the following word allows for [majlejt] 'Am I late?', but without Apex spell out we cannot account for the fully reduced [mʌlejt].

Conclusions

Pronoun reduction is phonological

- ▶ There is a clear cross-linguistic pattern of segmental sets-subsets that is a predictable outcome of:
 - weak phonological domains,
 - phonological underspecification,
 - and the regular phonological computation.
- ▶ Weak phonological domains correspond with syntactic distinctions
 - Sub-phasal domains are treated differently by the spell out algorithm / interface,
 - even when they need to undergo independent Apex spell out.
 - Weak pronouns need to appeal to Apex spell out, as they are non-phasal phrases.
- ▶ Nothing proposed in this analysis is specific to the phonological derivation of pronouns.
 - It requires no appeal to prosodic domains (the PH), and no appeal to domain-specific, function-word-specific, or morpheme-specific phonologies.
 - The only ‘special’ proposal is that the person-morphemes in English are not lexicalized with syllabic space. But, of course, lexical URs are where each morpheme’s ‘special’ phonology is stored.

- Arregi, Karlos & Matt Hewett. 2025. Singular they and the syntax of townhouses. NELS 55: Proceedings of the Fifty-Fifth Annual Meeting of the North East Linguistic Society 2. 1–15.
- Bernstein, Judy B & Christina Tortora. 2005. Two types of possessive forms in English. Lingua 115(9). 1221–1242.
- Bešlin, Maša. 2021. Dp in a model np language: Evidence from serbo-croatian personal pronouns. MIT Working Papers in Linguistics .
- Cardinaletti, Anna & Michal Starke. 1999. The typology of structural deficiency: A case study of the three classes of pronouns. In Henk van Riemsdijk (ed.), Clitics in the languages of Europe, 145–234. Berlin: de Gruyter Mouton.
- Chierchia, Gennaro. 1982. An autosegmental theory of raddoppiamento. In James Pustejovsky & Peter Sells (eds.), Proceedings of NELS 12, 49–62. Amherst: GLSA.
- Côté, Marie-Hélène. 2011. Final consonants. In Marc van Oostendorp (ed.), The blackwell companion to phonology, 1–25. Wiley Online Library.
- Déchaine, Rose-Marie & Martina Wiltschko. 2002. Decomposing pronouns. Linguistic Inquiry 33(3). 409–442.
- Farnetani, Edda & S. Kori. 1986. Effects of syllable and word structure on segmental durations in spoken Italian. Speech Communication 5. 17–34.
- Grohmann, K., M.A. Pöchtrager, T. Scheer, M. Schiffmann & N. Wenger. 2017. The apex paradox. Snippets 31. 10–12.
- Gussmann, Edmund & Jonathan Kaye. 1993. Polish notes from a Dubrovnik café: I. the yers. SOAS Working Papers in Linguistics and Phonetics 3. 427–462.
- Harley, Heidi & Rolf Noyer. 1999. Distributed Morphology. Glott 4. 3–9.
- Holmberg, Anders. 1986. Word order and syntactic features in the scandinavian languages and English: University of Stockholm dissertation.
- Ilić, Ivona. 2025. The structure of pronouns and allomorphy: Sprach-und literaturwissenschaftliche Fakultät dissertation.
- Kaisse, Ellen M. 1983. The syntax of auxiliary reduction in English. Language 59. 93–122.

- Larsen, Bergeton Uffe. 1998. Vowel length, raddoppiamento sintattico and the selection of the definite article in Italian. In Patrick Sauzet (ed.), Langues et grammaire ii-iii, phonologie, 87–102. Paris: Université Paris 8.
- Moskal, Beata. 2015. Domains on the border: Between morphology and phonology: University of Connecticut dissertation.
- Neeleman, Ad & Kriszta Szendrői. 2007. Radical pro drop and the morphology of pronouns. Linguistic inquiry 38(4). 671–714.
- Newell, H. & C. Puel. 2025. The reduction of sentence-initial subject pronouns : Standard Canadian English. In Meeting of the canadian linguistic association/association linguistique canadienne, .
- Newell, Heather. 2021. Deriving level 1/level 2 affix classes in English: Floating vowels, cyclic syntax. Acta Linguistica Academica 68(1-2). 31–76.
- Newell, Heather. 2025. English irregular verb roots= regular phonology: No allomorphy, no readjustment rules, no delayed phase spell-out required. NELS 55: Proceedings of the Fifty-Fifth Annual Meeting of the North East Linguistic Society 2. 157–170.
- Newell, Heather. in press. Phases and phonology. In Samuels B. Schwartz G. Törkenczy M. Nasukawa, K. (ed.), Wiley-Blackwell Companion to Linguistics. Second Edition, Wiley-Blackwell.
- Newell, Heather. under review. The phonology and syntax of English irregular verbs: no root allomorphy required. Journal of linguistics .
- Newell, Heather & Tobias Scheer. 2025. Syntactic and phonological underspecification in function words : the case of English pronoun reduction Ms., UQAM and UCA.
- Newell, Heather & Tobias Scheer. to appear. Phonological theory and cliticization. In The Oxford Handbook of Clitics, OUP.
- Newell, Heather & Shanti Ulfsbjorninn. 2023. A specific fucking pattern: The precise nature of stress-pivot infixation. In North american phonology conference (nacphcxii). concordia uniersity, canada, .
- Postal, Paul. 1969. On so-called “pronouns” in English. In Modern studies in English, 201–224. Prentice-Hall.
- Scheer, Tobias. 2004. A lateral theory of phonology. vol.1: What is CVCV, and why should it be? Berlin: de Gruyter Mouton.

- Scheer, Tobias. 2012. Direct interface and one-channel translation. a non-diacritic theory of the morphosyntax-phonology interface. vol.2 of A lateral theory of phonology. Berlin: de Gruyter Mouton.
- Scheer, Tobias. 2016. Melody-free syntax and phonologically conditioned allomorphy. Morphology 26(3). 341–378.
- Ségéral, Philippe & Tobias Scheer. 2008. The coda mirror, stress and positional parameters. In Joaquim Brandão de Carvalho, Tobias Scheer & Philippe Ségéral (eds.), Lenition and Fortition, 483–518. Berlin: de Gruyter Mouton.
- Selkirk, Elisabeth. 1972. The phrasal phonology of English and French: MIT dissertation.
- Selkirk, Elisabeth. 2014. The prosodic structure of function words. In James L. Morgan & Katherine Demuth (eds.), Signal to syntax: Bootstrapping from speech to grammar in early acquisition, 187–213. New York: Psychology Press [1996].
- Tyler, Matthew. 2019. Simplifying MATCH WORD: Evidence from English functional categories. Glossa: a journal of general linguistics 4(1): 32 pp.
- Uriagereka, Juan. 1999. Multiple spell-out. In Samuel Epstein & Norbert Hornstein (eds.), Working Minimalism, 251–282. MIT Press.
- Vydrin, Valentin. 2023. Focalization in Bambara, in comparison with Kakabe. Songs and Trees: Papers in Memory of Sasha Vydrina 285–310.
- Wallenberg, Joel C. 2008. English weak pronouns and object shift. In Proceedings of the 26th west coast conference on formal linguistics, 489–497.
- Wilbur, Joshua. 2014. A grammar of Pite Saami. Language Science Press.
- Zwicky, Arnauld M. 1970. Auxiliary reduction in English. Linguistic Inquiry 1(3). 323–336.
- Zwicky, Arnold M. 1977. On clitics. Phonologica 1976 19. 29.
- Zwicky, Arnold M & Geoffrey K Pullum. 1983. Cliticization vs. inflection: English n't. Language 502–513.