I am indebted to the friends and colleagues who answered my questions about the early years: Stephen Anderson, Avery Andrews, Robert Channon, Richard Demers, Joseph Emonds, Bob Faraci, Susan Fischer, George Hankamer, Michael Helke, Ray Jackendoff, Ellen Kaisse, Lauri Karttunen, Tony Kroch, Howard Lasnik, Will Leben, Philip Lieberman, David Lightfoot, †Gary Miller, Gary Milsark, Barbara Partee, Haj Ross, Robert Rothstein, Lisa Selkirk, Dorothy Siegel, Nomi Shir, Tom Wasow. The memories and documents that they contributed are the meat of this talk. Thanks also to Dóra Takács for stats on NELS 50.
Outline

1. 50 years of NELS
2. Persistent and new themes
3. Reflections on the present
NELS 1970-2019

▶ **NELS 1**: 2 days, 24 talks, selected by 3 organizers from 39 submissions. About 100-120 people attend the conference in Kresge Little Theater.

▶ **NELS 50**: 3 days, 94 talks and posters, selected by 461 reviewers from 430 submissions. 210+ registered participants.
This talk

- Brief history of NELS,
- Persistent and new themes,
- Comments on the present state of the field.
Regional conferences

- With the growth of science in the late fifties and sixties, national conferences were no longer sufficient venues for interaction among students and researchers. The LSA in particular was felt to be unresponsive to the exciting things that were happening in linguistics.

- Some national organizations, such as the APA, had affiliated regional associations that held regular conferences. The LSA did not.

- This led to the founding of independent regional linguistics organizations, run mainly by students. The first major one was CLS, which has met regularly at Chicago since 1965 (proceedings published since then). In 1975 it was followed by the Berkeley Linguistic Society.

- NELS was structured differently, as a floating linguistics conference, with no permanent organizational structure. NELS became the model for many other floating regional conferences, such as WCCFL and GLOW, as well as subfield conferences like SALT, DIGS, and AMP. This model ensures intellectual diversity and spreads the cost, effort, and benefits between different departments.

- NELS has grown steadily and now attracts participants from everywhere.
**Timeline**

**NELS 1, MIT 1970.** Katya Chvany, Robert Channon, and Paul Kiparsky decide to start a New England Linguistic Society and to organize a conference later that fall.

From the LSA Bulletin, 1970: “The NELS, founded by a group of New Englanders attending the 1970 LSA Summer Meeting, is not an organization but rather an informal grouping to encourage communication among linguists in the New England area. There are no officers and no dues; any interested person in the New England area who wishes to be is automatically a member. One or more meetings a year will be held at different schools throughout the area; the program committee will include members from more than one school.”

**NELS 2, Montreal 1971.** David Lightfoot brings the second NELS to McGill University, and the New England Linguistic Society renames itself the North East Linguistic Society.

UMass linguists offer to host NELS in 1972. It becomes an annual event, run by graduate students.
Timeline

NELS 3, Amherst 1972.
NELS 6, McGill 1975. Four papers in French!
NELS 8, Amherst 1977.

Barbara Partee
Emmon Bach
(Amherst 1974)
Five decades of NELS

NELS presentations by topic

- Syntax
- Phon
- Morph
- Semantics

Years:
- 70-79
- 80-89
- 90-99
- 00-09
- 10-19
Timeline (continued)

NELS 9, CUNY 1978. First two-volume proceedings! Session on discourse.
NELS 11, Ottawa 1980. UMAss GLSA starts publishing NELS.
NELS 12, MIT 1981. Parasession on word order. Agenda-setting papers by Hale “Preliminary remarks on configurationality” and by Halle & Vergnaud “On the framework of autosegmental phonology”.
NELS 17, MIT 1986. Parasession on unaccusative verbs.
Timeline (continued)


NELS 27, McGill 1996.

NELS 28, Toronto 1997. First NELS with poster sessions, printed in a separate volume.

NELS 29, Delaware 1998. Parallel sessions, two poster sessions.

NELS 30, Rutgers 1999.


NELS 33, MIT 2002. Special session on non-configurationality.

NELS 34, Stony Brook 2003. Distribution of NELS proceedings turned over to Amazon.


NELS 36, UMass Amherst 2005. Special session on “Topics at the Morphology-Phonology Interface”.

Timeline (continued)

**NELS 37, Urbana-Champaign 2006.** Westward ho! Special sessions on Pidgins and Creoles, and on Psycholinguistics.

**NELS 38, Ottawa 2007.** Special phonology and semantics workshops, poster sessions. For the first time, semantics talks outnumber phonology talks.

**NELS 39, Cornell 2008.** Parallel sessions, two poster sessions, and a special session on Linguistics at the Interfaces.

**NELS 40, MIT 2009.** Parallel sessions, plus two workshops: Phonological Similarity, and Pronoun Semantics.

**NELS 41, 2010.** Special session on Unity of Linguistic Methods.

**NELS 42, Toronto 2011.** Elan Dresher and Will Oxford introduce contrastive feature theory.

**NELS 43, CUNY 2012.** East Asian Colloquium and Computational Linguistics Workshops.

**NELS 44, UConn 2013.** No parallel sessions! Special session on Locality.

**NELS 45, MIT 2014.** NELS goes three volumes!

**NELS 46, Concordia University 2015.** 98 presentations (including posters and alternates), selected from 382 submissions.
Timeline (continued)

**NELS 47, UMass Amherst 2016.** Special sessions: Grammatical Illusions, Linearization of Syntactic Structures.

**NELS 48, Reykjavík 2017.** Is Tromsø next?

**NELS 49, Cornell 2018.** Three big all-day poster sessions.

**NELS 50, MIT 2019.** 430 submissions, 461 reviewers, 94 talks and posters, 210+ registered participants.
NELS 1, MIT 1970

NELS 1-4 did not result in published proceedings, and I have not been able to locate actual programs of any of them. Here is a partial list of the talks at NELS 1, reconstructed from memory and from interviews with participants.

1. K. L. Hale, Relative clauses in some non-Indo-European languages
2. Haj Ross, Conjunctive and disjunctive questions
3. Avery D. Andrews, Case agreement of predicate modifiers in Ancient Greek
4. Robert Rothstein, Sex, gender and the Russian Revolution
5. Philip Lieberman, On the evolution of human language
7. Paul Kiparsky, Metrics and Morphophonemics in the Rigveda
8. Will Leben, On the linguistic status of focus and presupposition
9. Richard Demers, [On rule insertion in Alemannic]
10. Robert Faraci, *And* as a verb-phrase complementizer
11. Catherine Chvany, Nominative alternating with genitive under negation

Most of these papers appeared within a few years and some of them became influential.
Ken Hale on adjoined relative clauses

Appeared as “The adjoined relative clause in Australia” in Dixon (ed.), *Grammatical Categories in Australian Languages*, 1976. Influenced work in syntactic theory and typology, Indo-European, and semantics:

Haj Ross, Conjunctive and disjunctive questions


1. Who remembers where John bought which books? (ambiguous)
2. Who wonders where John bought which books? (unambiguous)


Avery Andrews on predication

Published in *LI* 2:127-151, 1971.

First to propose that agreement builds creates feature-sharing structures, rather than just checking or copying features.

This idea was later developed by Frampton & Gutmann 2000, 2006, Pesetsky & Torrego 2007, Preminger 2017, and in GPSG/HPSG by Pollard & Sag 1994 and Gazdar et al. 1985.


Draws attention to a puzzling scope ambiguity between negation and certain modals.

1. John may not go out to play (without asking Mary first).
2. (If he is tired), John may not finish the job until tomorrow.

Like Ross’ talk, sets out an unsolved problem – a useful type of contribution that has gone out of style.

The scope of negation and modals was addressed again in Sabine Iatridou & Hedde Zeijlstra’s “Negation, Polarity, and Deontic Modals”, \textit{Linguistic Inquiry} 44:529–568, 2013.

I&Z argue that deontic modals obligatorily scope under negation, except for PPI modals, where this would violate a PPI-licensing requirement.
A NOTE ON NEGATIVES: THE NOT-FAPPING PROBLEM

Kroch and Lasnik

1. a. John \( \text{mayn't} \) go out to play (without asking Mary first).
   b. John \( \text{can't} \) swim very well.

2. a. (If he is tired), John \( \text{may} \) not finish the job until tomorrow.
   b. (When it is to his advantage to be polite), John can not misbehave for hours.

3. a. (If he feels like staying home), John \( \text{mustn't} \) come to work.
   b. (If John doesn't like Bill), he \( \text{shouldn't} \) help him out with the job.

4. a. John \( \text{must not} \) sign that lease without his family's approval.
   b. John should not resent helpful criticism.

5. a. John \( \text{can} \) not do the work now after having agreed to it.
   b. Soldiers can not not obey some orders.

6. a. John \( \text{may} \) not tell lies to protect himself from criticism.
   b. John \( \text{can't} \) not tell lies to protect himself from criticism.

7. a. John \( \text{must} \) not tell lies to protect himself from criticism.
   b. John \( \text{should} \) not tell lies to protect himself from criticism.

8. John \( \text{can not} \) not pay his share of the costs at this late date.

9. John \( \text{must not} \) not pay his share of the costs at this late date.

10. “John must \( \text{not} \) sign the agreement.”

11. Can John \( \text{swim well}? \)

12. Can't John \( \text{swim well}? \)

13. Is it the case that John \( \text{can swim well}? \)

14. Is it the case that John \( \text{can't swim well}? \)

15. \( \text{can't} \) John Jones go to New York for a while?

16. \( \text{mustn't} \) John Jones not go to New York?
A NOTE ON NEGATIVES: THE NOT-HOPPING PROBLEM

Kroch and Lasnik
MIT

1. a. John \(\text{may not}\) go out to play (without asking Mary first).
   b. John \(\text{cannot}\) swim very well.

2. a. (If he is tired), John may not finish the job until tomorrow.
   b. (When it is to his advantage to be polite), John can not misbehave for hours.

3. a. (If he feels like staying home), John \(\text{must not}\) come to work.
   b. (If John does not like Bill), he \(\text{should not}\) help him out with the job.

4. a. John must not sign that lease without his family's approval.
   b. John should not resent helpful criticism.

5. a. John can't not do the work now after having agreed to it.
   b. *Soldiers can't not not obey some orders.

6. a. John \(\text{can not}\) tell lies to protect himself from criticism.
Rothstein, Sex, gender and the Russian Revolution


- The NELS talk began:
  "Fifty-three years ago today, on November 7, 1917, a salvo from the cruiser 'Aurora' in Petrograd harbor marked the beginning of the Bolshevik Revolution [stormy applause in Little Kresge] – an event which, among other things, altered the surface structure of Russian sentences [the audience goes wild]."

- 1. Moja sestra moskvič-ka / #moskvič.
   my sister Muscovite-FEM / Muscovite
   ‘My sister is a Muscovite.’

- 2. Staryi vrač ušel / Staryi vrač ušla / ?Staraja vrač ušla
   old-MASC doctor left-MASC / old-MASC doctor left-FEM / old-FEM doctor left-FEM
   ‘The old doctor left.’

Lieberman reconstructed Neanderthals’ larynxes and found that they resembled those of human neonates more than of human adults. He argued that they had language and could talk, but could not produce the full range of quantal vowels, in particular not the vowels [i] [u] [ə].
1. Dorothy Siegel, Expletive infixes and where you can shove them [→ *Topics in English Morphology*, https://dspace.mit.edu/handle/1721.1/13022]


3. David Lightfoot, Natural Logic and the Greek Moods: The Nature of the Subjunctive and Optative [Published as a book, Mouton 1975]


6. Gary Miller, Problems in Greek Accentuation

7. Lyn Kypriotaki, Variable rules and rapid English speech


9. Peter Binkert, On the insertion of *because*

10. R. M. R. Hall & B. L. Hall, Underlying VSO order in Indo-European
Siegel, Expletive infixes and where you can shove them

- Siegel, *Topics in English Morphology*, https://dspace.mit.edu/handle/1721.1/13022
- Alan Yu, *The Morphology and Phonology of Infixation* (Berkeley Diss.) 2003
Still an unsolved problem

- McCarthy: The foot structure of the host is minimally restructured to accommodate the infix. For example, *un-F-believable is OK but *ir-F-responsible is not, for the foot structure is un(be((lieva)ble)), but (irre)((sponsi)ble). The foot irre- can’t be broken up.

- However, contra McCarthy, unbe-F-lievable is also OK, in fact preferred to un-F-believable (more Google hits). Competition between lexical phrasing and prosodic phrasing due to prosodic restructuring (Bögel, this conference)?

- *un-F-necessarily, *?unne-F-cessarily, *?unnece-F-sarily

- Canadian French inter-F-minable (Baronian & Tremblay BLS 43).
Outline

1. 50 years of NELS
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Dealing with *Sound Pattern of English*

- Phonology in the 70s faced a paradox: SPE presented an attractive theory, but produced, among many insights, also some unconvincing results, such as the supposed inaudible ε-glide suffix in *residence*, the phoneme /x/ in *nightingale*, and the phoneme /œ/ in *boy* /bœ/.

- Attempts to rescue the theory by tacking on added conditions (such as my Alternation Condition, Kiparsky 1968) are just bad science: you can’t fix a bad theory by outlawing its wrong consequences. Arguing that you can get the Alternation Condition from a learning theory begs the question, for SPE theory *is* supposed to be an abstract learning theory.

- Rejecting SPE phonology, e.g. in favor of Natural Phonology (Stampe 1969) or NGG (Hooper 1974, Hudson 1974, Vennemann 1974) kills the insightful analyses of SPE theory along with the bad ones.

- Much work in the 70s aimed to rebuild phonology so that it would deliver reasonable analyses and a sound typology in a principled way. It included autosegmental phonology, metrical phonology, and later prosodic morphology and lexical phonology, and the idea of rules restricted to derived environments.
Accessing phonological derivations

- With this turn, justifying phonological derivations and testing their accessibility to language learners and users came onto the agenda. Initially, evidence came mainly from language acquisition and metrical verse.

- In an elegant study, Beth Myerson showed that children begin to overgeneralize vowel shift at age 11-14. Based on previous findings that rules tend to be overgeneralized when they are first learned, she argued that vowel shift is acquired at this time, since the vocabulary that provides the bulk of the evidence for it is learned then.

- In and “Metrics and Morphophonemics in the Rigveda” (NELS 1) and “Metrics and Morphophonemics in Early English Verse” (NELS 2) I and Howard Lasnik respectively argued that oral poets can compose verse on the basis of an intermediate phonological representation that they access on the basis of their implicit phonological knowledge. Since Lasnik’s study is more compelling than mine, I present it here.
Until about 950, in Old English poetry,

1. [k] alliterates with [č],
2. [g] alliterates with [ĵ] and [j], but
3. [t] never alliterates with [d],
4. [p] never alliterates with [b].
Alliteration of [č-] and [k-], [j-] and [g-]

1. oppe þæs ceasterhlides, clustor onlucan [Christ 1, 314]
   or of the city gate, the lock open
   ‘or open the lock of the city gates’

2. to geceosenne cyning ænigne [Beowulf 1851]
   to choose king any
   ‘to choose any king’

3. þone on geardagum Grendel nemdon [Beowulf 1354]
   whom in days of yore Grendel they named
Juliana 5-6

cwealde cristne men,  circan fylde,
he killed  Christian men,  churches razed

geat on græswong  godhergendra,
poured on the grassy plain  of god-praisers  [the holy blood of saints]
Traditional explanations

- Orthographic convention? It’s mostly oral poetry, and when it’s written, the spelling doesn’t matter. [k] can be written c, k, or with the runic letter þ, and they all alliterate.

  1. *woldon ceare cwiðan ond kyning mænan* [Beowulf 3171]
     would sorrow tell, and bemoan the king

  2. *þ þ ond þ cyning biþ reþe* [Juliana 704]
     *cen ÿr* and *nýt* the king will be harsh

- Lines composed prior to palatalization and transmitted in frozen form?
  No: original *j-* (which never was *g-*) also alliterates with *g*:

  geongum and ealdum, swylc him God sealde [Beowulf 72]
  to young and old, such as them God had given

  mid Iudeum gumena wiste [Elene 1202]
  among the Jews of men she knew
Lasnik’s analysis

- Synchronically underlying all OE occurrences of \([j, ̆j]\) and \([č]\) were /g/ and /k/ respectively.
- Alliteration operated in the phonological derivation preceding the operation of a palatalization rule.

Motivating the reanalysis

“In late OE, the neutralization of many inflections brought about a restructuring of the language, since previously significant rules were no longer generally motivated. As a result of these changes, velars and palatals became underlyingly distinct, and were consequently no longer able to co-alliterate.”

<table>
<thead>
<tr>
<th>Strong</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>brecan [k]</td>
<td>‘break’</td>
</tr>
<tr>
<td>drincan [k]</td>
<td>‘drink’</td>
</tr>
<tr>
<td>springan [g]</td>
<td>spring</td>
</tr>
<tr>
<td>scrincan [k]</td>
<td>shrink</td>
</tr>
<tr>
<td>secan [č]</td>
<td>‘look for’</td>
</tr>
<tr>
<td>drencan [č]</td>
<td>‘drench; cause to drink’</td>
</tr>
<tr>
<td>sengan [i]</td>
<td>singe</td>
</tr>
<tr>
<td>hnāegan [i]</td>
<td>neigh</td>
</tr>
</tbody>
</table>
Classical French versification (ca. 1600-1900)

- Consonants that are deleted in word-final position count for purposes of rhyme: *son* does not rhyme with *long tronc, rond, or pont*
- But homorganic final voiced and voiceless obstruents are treated as equivalent: *long* rhymes with *tronc, rond* rhymes with *pont*
- Rhymes can’t be defined on phonetic and traditional phonemic representations:
  
  - /tɔ̃/ [tɔ̃], /lɔ̃/ [lɔ̃], /mɔ̃/ [mɔ̃], /sɔ̃/ [sɔ̃]
- Nor on underlying (morphophonological) representations:
  - {tronk}, {long}, {pont}, {rond}, {son}
  - (cf. *tronquer, longue, ponter, ronde, sonner*).
- Rhymes are definable on the output of the lexical phonology:
  - *lonk, tronk, dont, ront*
  - The devoiced consonants are inputs to the classical *liaison* system:
    - *long hiver* [lɔ̃.ki.vεʁ] ‘long winter’, *grand homme* [grã.tɔ̃m] ‘great man’.
Brazilian Portuguese nasal vowels

- Invented language games show that the four nonlow nasal vowels [ĩ, õ, ū, ū] are derived, whereas the low nasal vowel [ũ] is an underlying segment (Guimarães & Nevins 2013).

- Stems in {-an-} regularly contract with a following ending {-a}, e.g. sã [sẽ] ‘sane’ (fem.), from /san-a/ (cf. masc. sã o [sẽw], from /san-u/).

- {-Vn-}stems where V is some other vowel than /a/ keep the stem form under these circumstances, e.g. dona ['donɐ] ‘lady’, from /don-a/ (masc. don [dõ], from /don-u/), or in exceptional cases delete the nasal, e.g. boa [boɐ] ‘good’ /bon-a/ (masc. bom [bõ] /bon-u/).

- This distribution falls out if the low nasal vowel is formed at the stem level, whereas the other nasal vowels are formed postlexically.

1. {san-} → /sẽ/ → /sẽ-a/ → [sẽ]
2. {don-} → /don-a/ → ['donɐ]
Lexical phonology

- A phonology-morphology interface in which cyclicity emerges in a natural way, and derived-environment effects can be dealt with.
- A stratal organization in which underlying lexical representations become subject to stem-level phonology before entering the word and phrase phonology. Therefore stem-level rules/constraints can access covert underlying distinctions, but if they are neutralized they cannot condition word level or postlexical processes. This allows absolute neutralization of the Yokuts type, which appears to be empirically justified.
Outline

1. 50 years of NELS
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A puzzling graph
Two questions

1. Why is historical linguistics so weakly represented?
   - Persistence of Saussure’s claim that you need two different *kinds* of linguistics for synchrony and diachrony?
   - Belief that historical linguistics is somehow not theoretical? If anything it’s *more* theoretical, because to do it right you need all of formal linguistics and then some.

2. Why has the representation of phonology and morphology proportionally decreased?
   - These subfields have been as fertile in new ideas in recent decades as syntax and semantics. Phonology retains its traditional role as a pilot branch of linguistics, furnishing a manageable domain where new ideas can be first tested.
   - A tentative diagnosis: they have become more FRAGMENTED and ENCAPSULATED.
Two questions

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   - A tentative diagnosis: they have become more FRAGMENTED and ENCAPSULATED.
Fragmentation

- Phonology has split into OT and rule-based versions.
- OT has in turn split into sub-versions. We now have classical, harmonic, stratal, and several probabilistic kinds of OT.
- Proliferation of theories is not a problem. It’s a good thing. The problem is *the proliferation of research communities*. At least as much effort should go into theory comparison as into honing formalisms.
- Fragmentation also creates a practical problem: what do we teach? Some version of OT with a class on phonology with ordered rules? The reverse? Or some combination?
Fragmentation in morphology

Morphology has Paradigm Function Morphology, Distributed Morphology, Minimalist Morphology, Construction Morphology... They all address in principle the same empirical phenomena, but their advocates barely talk to each other.

In this case dialogue should be easy because the theories are really not that different. Yet morphology papers typically assume one of them and address some data in relation to what it says about how it should be articulated in detail.

Morphology conferences tend to be specialized to a single approach. For example, last year’s International Morphology Meeting at Budapest had only one DM talk.
Encapsulation

- A subfield should maintain contact with its neighbors.
- Early generative phonology neglected morphology, to its detriment.
- Now most morphological theories neglect phonology.
- This makes their results less relevant and more fragile.
English past tense morphology

1. Regular weak: leaned, shouted, leaped...
2. Irregular weak:
   2.1 No change ($X \rightarrow X$): (1) rid, shed, spread, wed, (2) beat, beset, bet, burst, cast, cost, cut, hit, hurt, let, put, quit, set, shut, slit, split, thrust, upset, wet
   2.2 /-t/ ($X \rightarrow Xt$): burnt, dwelt, learnt, spilt, spoilt
   2.3 /-t/ with shortening and vowel shift ($X \rightarrow X't$): bereft, crept, dealt, dreamt, felt, kept, knelt, leapt, left, lost, meant, slept, swept, wept
   2.4 Shortening and vowel shift ($X \rightarrow X'$): (1) bled, bred, fed, led, read, hid, slid, sped, (2) shot, lit, met
   2.5 Devoicing ($X \rightarrow X'$): bent, built, lent, sent, spent
   2.6 /-d/ with shortening and vowel shift ($X \rightarrow X'd$): fled, heard, said, shod
3. Irregular weak with nucleus/rhyme replacement
   3.1 /-d/ with nucleus replacement to /oː/: sold, told
   3.2 /-d/ with rhyme replacement to /u/: could, should, stood, would
   3.3 /-t/ with rhyme replacement to /ɔː/: bought, besought, brought, caught, fought, sought, taught, thought, wrought
4. Strong
   4.1 Stem vowel $\rightarrow /\Lambda/$: hung, stuck, dug...
   4.2 /i/ $\rightarrow /æ/$: bade, sang, sat...
   4.3 ...
5. Suppletive: was, went...
English past tense morphology

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   4.3 ...

5. Suppletive: was, went...
Allomorphy and/or readjustment rules

1. Allomorphs /-t/, /-d/, and -∅, which trigger various effects on the stem (Halle & Marantz’ 1993, Embick & Halle 2005, Embick 2015: 194).

2. The shortening in sleep → slept, meet → met, hear → heard is effected by a READJUSTMENT RULE (Embick 2015: 202, Halle & Marantz 1993: 7).

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2. The shortening in $sleep \rightarrow slept$, $meet \rightarrow met$, $hear \rightarrow heard$ is effected by a READJUSTMENT RULE (Embick 2015: 202, Halle & Marantz 1993: 7).

Claim: the “irregular” weak class is regular

These verbs of have the same past tense suffix /-d/ as the regular weak verbs, only attached to stems, rather than to words, where they undergo the processes of the stem phonology.

1. Closed Syllable Shortening: *VC in derived environments
2. Final Devoicing: *[-vocalic][+voiced] in derived environments
3. Degemination: *C₁C₁
4. Voicing Assimilation: *[+obstruent, φvoiced][+obstruent, −φvoiced]

Degemination and Voicing Assimilation apply across the board, closed Syllable Shortening and Final Devoicing are Derived Environment processes.
Indepedently needed in the stem phonology

1. Voicing Assimilation and Shortening (with vowel shift): /wīd-θ/ → width, /skrīb-t/ → script

2. Voicing Assimilation and Degemination: /æd-test/ → attest, /in-tend-t/ → intent

Stem-level Final Devoicing applies exceptionlessly to /-d/, which is the only voiced obstruent suffix that occurs at the stem level.
## Semi-weak verbs

<table>
<thead>
<tr>
<th>Stem level</th>
<th>*ṼC</th>
<th>*[-voc][+vcd]</th>
<th>*CiCi</th>
<th>*[αvcd][−αvcd]</th>
<th>IDENT(vcd)</th>
<th>MAX-μ</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Input: ((mēn)d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. ((mēn)d)</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. ((men)d)</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. ((mēn)t)</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. ((men)t)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>B. Input: ((send)d)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1. ((send)d)</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. ((send))</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. ((sent))</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Input: ((brēd)d)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. ((brēd)d)</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. (( bred)d)</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. ((bred)t)</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. ((brēd))</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. (( bred))</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Notes:**
- *ṼC* indicates the presence of a vowel.
- *[-voc][+vcd]* represents the absence of a vowel and the presence of a consonant.
- *CiCi* denotes the presence of a consonant.
- *[αvcd][−αvcd]* signifies the absence of a vowel and the presence or absence of a consonant.
- IDENT(vcd) checks for identity with the template.
- MAX-μ compares and selects the best match.
Semi-weak verbs

<table>
<thead>
<tr>
<th>Stem level</th>
<th>*VC</th>
<th>*[-voc][+vcd]</th>
<th>*C_iC_i</th>
<th>*[αvcd][–αvcd]</th>
<th>IDENT(vcd)</th>
<th>MAX-μ</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. Input: ((lēv)d)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. ((lēv)d)</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 2. ((lev)d) | | * | | | | *
| 3. ((lev)t) | | | * | | * | *
| 4. ☞ ((lef)t) | | | | | ** | * |
| E. Input: ((mēt)d) |
| 1. ((mēt)d) | * | * | | | | *
| 2. ((med)d) | | * | | | | *
| 3. ((met)t) | | | * | | | *
| 4. ((mēd)) | * | | | | | *
| 5. ((mēt)) | | * | | | | *
| 6. ((med)) | | | | | * | **
| 7. ☞ ((met)) | | | | | ** | |
| F. Input: ((flē)d) |
| 1. ((flē)d) | * | | | | | |
| 2. ☞ ((fle)d) | | | | | * | |
| 3. ((fle)t) | | | | | * | * |
Taking phonology seriously allows a proper demarcation between phonology and allomorphy. This eliminates many apparent non-local and outward allomorphy dependencies, which are theoretically problematic.
The issues addressed a half century ago are still live. But today we can understand them more deeply and approach them in a broader context. And new issues that we could not even dream of then have emerged.
Some of you may gather to celebrate the centenary of NELS in 2069. You will have some great stories to tell about the next 50 years.