Phonologically-Conditioned Allomorph Selection

Andrew Nevins
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1 Six Phonological Conditions Forcing Allomorph Choice

1.1 Segmental Dissimilation

(1) English possessive clitic’s zero allomorphy
   a. the cats’ feet are dirty (kæts, *kætsiz)
   b. the pigs’ hooves are clean (pIgz, *pIgziz)
   c. the oxen’s hooves are dirty
   d. Katz’s deli

(2) Zero allomorphy optional when plural is not on head noun
   a. the lady with the cats’ name is Tinuviel (kæts, kætsIz)
   b. the man in front of the pigs’s son won the competition (pIgz, pIgzIz)

(3) Catalan theme vowel allomorphy [Bonet et al., 2007]
   a. gOt, gOt-s ‘glass, glasses’
   b. awt-u, awt-u-s ‘car, cars’
   c. mos-u, mos-u-s ‘lad, lads’
   d. gos, gos-u-s ‘dog, dogs’

(4) Spanish article allomorphy based on stressed vowel of following noun
   a. la mésa ‘the table.fem’
   b. el libro ‘the book.masc’
   c. el água ‘the water.fem’
   d. la isla ‘the island.fem’
   e. la aguíta ‘the water.fem-dim.’

(5) Dutch agentive suffix allomorph selection
   a. dans ‘dancer’, schrijv ‘writer’, voorzitt ‘chairperson’
   b. wand ‘walker’, bewond ‘admirer’, tek ‘illustrator’

1.2 Segmental Phonotactics

(6) Romanian availability of stem allomorphs determines denominal suffix
   singular plural denominal verb
   kolak ‘bagel’ kolatSi ‘bagels’ ij-kolatSi ‘to roll up’
   fok ‘fire’ fok-uri ‘fires’ in-fok-a ‘to fire up’

(7) Udihe perfective marked by laryngealization except with high vowels
   a. etete ‘work-perf.’, zawa ‘grab-perf.’, olokto ‘cook-perf.’
   b. dogdi-ge ‘hear-perf.’, bu-ge ‘give-perf.’

1.3 Syllable Structure

(8) BPE past tense recruits -@d allomorph for obstruent-final verbs
   a. added (æd@d)
   b. packed (pæk@d)
   c. act (ækt, *ækt@d)
   d. leaned (lind, *lin@d)

2
(9) Korean Nominative Case suffix chosen based on final segment of stem [Suh, 2008]
   a. mom-i ‘body-nom’
   b. kʰo-ka ‘nose-nom’

(10) Moroccan Arabic object clitic used to be -hu, but now has developed into two distinct (and synchronically unrelatable) allomorphs,
   a. -h, chosen after vowel-final stems (e.g. xtʰa-h ‘his error’)
   b. -u, chosen after consonant-final stems (e.g. klab-u ‘his book’).

(11) Swedish definite suffix allomorphy: -en recruited after heteromorphemic nasals [Löfstedt, 2008]
   a. [byː], [byːn] ‘village; stem, def.’
   b. [sykkel], [sykeln] ‘bicycle; stem, def.’
   c. [gruːp], [gruːpen] ‘hole; stem, def.’
   d. [pilgrim], [pilgrimen] ‘pilgrim; stem, def.’
   e. [elksljːt], [elksliːn] ‘love-dim; stem, def.’
   f. [hymn] ‘hymn’

   a. petit canard [potikan] ‘small duck, masc.’
   b. petite bête [potitbet] ‘small beast, fem.’
   c. petit animal [potitanimal] ‘small animal, masc.’

(13) French adjectival allomorph selection with wholesale suppletion
   a. beau canard [bokanar] ‘beautiful duck, masc.’
   b. belle bête [belbet] ‘beautiful beast, fem.’
   c. belle animal [belanimal] ‘beautiful animal, masc.’

1.4 Morphological Alignment

(14) Haitian definite article allomorphy [Klein, 2003]
   a. liv-la ‘book-the’
   b. papa-a ‘father-the’

(15) Galician article allomorphy (exemplified for feminine a(s) vs. la(s))
   a. a xente ‘the people’
   b. as mulleres ‘the women’
   c. para as mulleres ‘for the women’
   d. sobre a xente ‘about the people’
   e. ve-la xente ‘I saw the people’ /ver/
   f. tôda-las mulleres ‘all the women’ /tódas/

(16) Korean conjunctive suffix allomorph selection [Suh, 2008]
   a. kʰo-wa ‘nose-conj.’
   b. mom-kwa ‘body-conj.’
Môcheno participial allomorphs [Alber, 2009]: stem resists resyllabification

<table>
<thead>
<tr>
<th>Stem</th>
<th>Participial Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>tondarn</td>
<td>‘to thunder’ tondart</td>
</tr>
<tr>
<td>kretsn</td>
<td>‘to scratch’ krest</td>
</tr>
<tr>
<td>viern</td>
<td>‘to conduct’ pfieri</td>
</tr>
<tr>
<td>floci</td>
<td>‘to beat’ tfloci</td>
</tr>
<tr>
<td>o:tnan</td>
<td>‘to breathe’ gao:tn</td>
</tr>
<tr>
<td>rr:arn</td>
<td>‘to cry’ garr:art</td>
</tr>
<tr>
<td>moxen</td>
<td>‘to make’ gamox</td>
</tr>
<tr>
<td>bisn</td>
<td>‘to know’ gabist</td>
</tr>
<tr>
<td>griezon</td>
<td>‘to greet’ gagriest</td>
</tr>
</tbody>
</table>

1.5 Stressedness and Vowel Quality

(18) Hebrew plural allomorph selection: feminine -ot recruited for nouns with unstressed stem [o] [Becker, 2009]

<table>
<thead>
<tr>
<th>Stem</th>
<th>Plural Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>y ´elad, yelad-´ım</td>
<td>‘boy; masc. sg., masc. pl.’</td>
</tr>
<tr>
<td>xats ´er, xatser-´ot</td>
<td>‘backyard; fem. sg., fem. pl.’</td>
</tr>
<tr>
<td>xal ´on, xalon-´ot</td>
<td>‘window; masc. sg., masc. pl.’</td>
</tr>
</tbody>
</table>

(19) Italian present tense conjugation for andare, with stress marked and agreement endings separated

<table>
<thead>
<tr>
<th>Person</th>
<th>Conjugation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>v ´add-o and-i ´amo</td>
</tr>
<tr>
<td>2sg</td>
<td>v- ´ai and- ´ate</td>
</tr>
<tr>
<td>3sg</td>
<td>v- ´a v- ´anno</td>
</tr>
</tbody>
</table>

(20) Surmiran stem allomorphy chosen based on stress [Anderson, 2008]

<table>
<thead>
<tr>
<th>Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>infin lavár</td>
<td>‘get up’ fittár ‘finish’</td>
</tr>
<tr>
<td>1sg lév</td>
<td>fét</td>
</tr>
<tr>
<td>2sg lévas</td>
<td>féttas</td>
</tr>
<tr>
<td>3sg léva</td>
<td>féta</td>
</tr>
<tr>
<td>1pl lavágn</td>
<td>fittágn</td>
</tr>
<tr>
<td>2pl lovéz</td>
<td>fittéz</td>
</tr>
<tr>
<td>3pl lévan</td>
<td>féttan</td>
</tr>
</tbody>
</table>

(21) Spanish mid-vowel diphthongization stem allomorphy [Bermúdez-Otero, 2009]: unstressed diphthongs not tolerated at stem-level

<table>
<thead>
<tr>
<th>Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. encontrár</td>
<td>‘to meet’</td>
</tr>
<tr>
<td>b. encuentro</td>
<td>‘a meeting’</td>
</tr>
<tr>
<td>c. encuentrón</td>
<td>‘meeting-aug.’ (word-level, ‘one hell of a meeting’)</td>
</tr>
<tr>
<td>d. encontrón</td>
<td>‘someone who bumps into others’ (stem-level, deverbal)</td>
</tr>
</tbody>
</table>

1.6 Foot Structure

(22) Shipibio syllable-counting allomorphy: ribi vs. riba [González, 2005]
a. Stem: pima ‘eat-caus.’ + REPETITIVE + PAST: (pi.ma)(ri.bi)ki ‘He made him eat it again’
b. Stem: pi ‘eat.’ + REPETITIVE + PAST: Repetitive+Past (pi.ri)(ba.ki) ‘He ate it again’

(23) Yaminahua syllable-counting allomorphy: ti:j vs. to:j [González, 2005]
a. Stem: fit[i ‘find’ + ARRIVE + PAST + PLURAL: (fi.t[i](to.f[i](afo) ‘found on arriving’
b. Stem: fa ‘say’ + ARRIVE + yesterday: (fa.t[i](fo.[i](ta) ‘said on arriving’

a. paraja ‘suitable’
b. (´pa.ra)(j`at.te) ‘gen. pl’
c. (pa.ra)(jait) ‘part. pl’

a. visa ‘tough’
b. (vi.sa)te ‘gen. pl’
c. (vi.sa)sit ‘part. pl’

(26) Greek action nominals and syllable count [Drachman et al., 1996]
a. vréks-imos ‘wetting’
b. skúpiz-ma ‘sweeping’

(27) Dutch plural allomorphy: based on trochees at right edge [Booij, 1998]
a. knie, knie ¨en ‘knee’
b. bal, bållen ‘ball’
c. nátie, náties ‘nation’
d. genie, geniéén ‘genius’
e. kánon, kánons ‘canon’
f. kanón, kanónnen ‘cannon’

(28) Spanish -ez/-eza allomorphy [Aranovich and Orgun, 2006]
b. rigid-ez ‘rigidity’, madur-ez ‘maturity’, tirant-ez ‘tenseness’

2 Arbitrary cases that still reference phonology

(29) Kaitit ergative suffix: -ŋ after disyllabic stems, -l after trisyllabic stems [Paster, 2006]

(30) Axininca Campa genitive: -ni after bimoraic stems, -ti elsewhere [Bye, 2008]
a. no-yor’a-ni ‘my manioc worm’, i-çaa-ni ‘his anteater’, a-sari-ni ‘our macaw’
b. i-wisiro-ti ‘his small toucan’ no-yairo-ti ‘my termite’ a-yaarato-ti ‘our black bee’

(31) a. i vini ‘the wines’, i padri ‘the fathers’, i ragazzi ‘the boys’
b. li alberghi ‘the hotels’, li inglesi ‘the Englishmen’, li uccelli ‘the birds’

(32) Sample Subcategorization for Kaititj ergative
ERG ↔ /-η/ in the context σσ
ERG ↔ /-l/

3 Issues for Theoretical Models

3.1 When does Allomorph Selection Take Place?

3.1.1 Opacity: Allomorph Selection at Intermediate Levels

(33) Japanese opaque allomorph selection with w-final stems

<table>
<thead>
<tr>
<th>yom ‘read’</th>
<th>ne ‘sleep’</th>
<th>iw ‘say’</th>
<th>yow ‘get.drunk’</th>
</tr>
</thead>
<tbody>
<tr>
<td>nonpast</td>
<td>yom-u</td>
<td>ne-ru</td>
<td>i-u</td>
</tr>
<tr>
<td>inchoative</td>
<td>yom-oo</td>
<td>ne-joo</td>
<td>i-oo</td>
</tr>
<tr>
<td>negative</td>
<td>yom-anai</td>
<td>ne-nai</td>
<td>iw-anai</td>
</tr>
</tbody>
</table>

(34) Turkish opaque allomorph selection with k-final stems

a. bedel, bedel-i ‘price, nom./poss’
b. fire, fire-si ‘attrition, nom./poss.’
c. bebek, bebe-i ‘baby, nom./poss.’

3.1.2 Reference to syntactic factors

(35) Russian prepositional complement allomorphy

a. bez nix ‘without them’
b. bez ix brata ‘without their brother’

(36) Catalan prenominal / postnominal allomorphy

a. aquel() bon() vins blancs dolços
those-pl good-pl wine-pl white-pl sweet-pl

3.2 How are Allomorphs Chosen?

(37) Optimizer: The allomorph chosen in order to satisfy a particular phonotactic, e.g. an to provide an onset, in a particular set of environments (e.g. before vowel-initial words)
Default: The allomorph chosen otherwise

(38) Djabugay genitive

a. gu.lu.du-u ‘dove’
b. ga.pal.γun ‘goanna’
c. Why isn’t γun always chosen?
“Positive Licensing” of Non-Default Vocabulary Item:
INDEF ↔ /æn/ if it removes a violation of ONSET
INDEF ↔ /ə/  

“Negative Licensing” of Non-Default Vocabulary Item:
DEF, +FEM ↔ /la/ if it does not create a violation of a-hiatus
DEF ↔ /el/  

References


Marc van Oostendorp. How I learned how to stop worrying and love the derivation. Paper presented at Manchester Phonology Meeting 17, 2009.