Emptiness in phonology

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1. Intro

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- in phonology: emptiness (rather than the presence of info) assumed whenever inert; empty/zero/"covert" categories posited whenever an entity with no apparent physical body exhibits some systematic behaviour / manifests itself (similarly to syntax and morphology)
like ghosts/poltergeists


A 14-year-old domestic servant, Therese Selles, experiences poltergeist / spontaneous PK activity in the home of her employer, the Todeschini family at Cheragas, Algeria, as featured on the cover of the French magazine La Vie Mysterieuse in 1911. http://en.wikipedia.org/wiki/Poltergeist (accessed 11 Aug 2010)
2. Evidence for empty categories in linguistic structure - a brief sketch
2.1 Syntax

- empty categories, esp. a whole typology of empty pronouns (PRO, pro) and traces of moved elements
- the invisible barrier: wanna-contraction
a. Who(m) do you wanna invite to the party?
b. *Who do you wanna invite the guests to the party?

2. Evidence for empty categories in linguistic structure - a brief sketch
2.1 Syntax

- empty categories, esp. a whole typology of empty pronouns (PRO, pro) and traces of moved elements
- the invisible barrier: wanna-contraction
a. Who(m) do you wanna invite to the party?
b. *Who do you wanna invite the guests to the party?
$\mathrm{a}^{\prime}$. Who(m) do you want to invite $\varnothing$ to the party?
b'. Who do you want $\varnothing$ to invite the guests to the party?
- interpretable:
a. I want to do the homework
b. I want YOU to do the homework
- interpretable:
a. I want to do the homework
b. I want YOU to do the homework
$\mathrm{a}^{\prime}$. I want Ø to do the homework
- interpretable:
a. I want to do the homework
b. I want YOU to do the homework
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c. Hu. Szeretlek 'I love you'
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$\mathrm{a}^{\prime}$. I want $\varnothing$ to do the homework
c. Hu. Szeretlek 'I love you'
$c^{\prime}$. $\emptyset_{1}$ szeretlek $\emptyset_{2}$
- systematic behaviour:
a. I asked [him] [a favour]
b. I asked [him] [to do the homework]
b'. I asked [him] [Ø to do the homework]
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2.2 Morphology
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cf.
book - a book - five books
information $-*$ an information $-*$ five informations (no plural form) reindeer - a reindeer - five reindeer (zero plural form)


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a. All of the other boy-S used to laugh and call him names
b. All of the other reindeer- $\varnothing$ used to laugh and call him names
cf.
book - a book - five books
information - *an information - *five informations (no plural form)
reindeer - a reindeer - five reindeer (zero plural form)
reindeer - a reindeer - five reindeer-Ø (zero plural form)
- zero derivation

Hu: (egy) SMS 'an SMS message' - SMS-ez-(ik) 's/he sends an SMS message'
vs.
Eng. (a) text - (s/he) text-Ø-(s)

3. Empty categories in phonology
3.0 A detour: autosegmentalism

Phonological representations are multidimensional, (component parts of) segments are arranged on separate or autonomous levels or tiers (hence the name auto-segmental)

Phonological rules can apply independently to the (component parts of) segments at these autonomous levels


compensatory lengthening

|  | GA | RP |  |
| :--- | :--- | :--- | :--- |
| car | kar | ka: | ka:rız car is |
| more | mor | mo: | mo:rais more ice |
| sir | s3r | s3: | s3:rælən Sir Allen |
| harsh | har | ha: $\int$ |  |
| fork | fərk | fo:k |  |
| bird | b3rd | b3:d |  |



Hungarian

|  | Standard Hu | Colloquial Hu |
| :--- | :---: | :---: |
| volt 'was' | volt | vo:t |
| bolt 'shop' | bolt | bo:t |
| hold 'moon' | hold | ho:d |
| zöld 'green' | zøld | zø:d |
| Alföld | alføld | a:fø:d |

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"mass preservation law"
spreading: the autosegment spreads/docks onto the target skeletal slot:

(Source: lolPhonology on Facebook,
http://www.facebook.com/photo.php?pid=248656\&id=117988771562955 accessed 14/08/10)
skeleton-melody relationship is not necessarily one-to-one
skeleton
3.1 Emptiness above the segment

Ex.1: liaison

| French: | les | les amis <br> les enfants | 'the friends' <br> 'the children' |
| :--- | :--- | :--- | :--- |
|  | grand |  |  |
| tout |  |  |  |
| frand homme |  |  |  |$\quad$| 'great man' |
| :--- |
| tout homme |
| faux amis |$\quad$| 'every man' |
| :--- |

English: car is
more ice
Sir Allen
recall:

|  | GA | RP |  |
| :--- | :--- | :--- | :--- |
| car | kar | ka: | ka:rız car is |
| more | mor | mo: | mo:rais more ice |
| sir | s3r | s3: | s3:rælən Sir Allen |
| harsh | har | ha: $\int$ |  |
| fork | fork | fo:k |  |
| bird | b3rd | b3:d |  |

- floating consonant is only interpreted when a target skeletal slot is available


- all vowel-initial words start with an empty consonantal position


## Ex.2: hiatus-filling

| ski_ing | Woody_Allen | so_exciting | too_old |
| :--- | :--- | :--- | :--- |
| tea_and | very_old | allow_ing | go_away |
| see_us | many_eyes | Jew_ish | New_England |

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there is an empty consonantal slot between the two vowels, that is, the second syllable starts with an empty C
ski- Ø -ing Hu. milli- Ø -ó 'million'

- vowel-initial syllables start with an empty consonantal position
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= ALL SYLLABLES START WITH AN (EMPTY OR NONEMPTY) CONSONANTAL POSITION
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Syllable structure depends on the melodic make-up of segments, cf. -tl- always heterosyllabic Atlantic
-tr-always tautosyllabic attractive
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ban-d Ø

## final empty vowels!

(All the final two-member consonant clusters of English are also found word-internally, where - with the exception of $s p, s t, s k$, cf. lisp, fist, risk - they are always unambiguously heterosyllabic.)
what else do final empty vowels buy us?
e.g., explain final consonant extrasyllabicity:
e.g.:

1. stressing: R-to-L, quantity-sensitive:
abandon:
-do(n) unstressed
-ban- stressed
cf. unite, achieve; tormént, eléct
here: the word-final consonant is not contained within the syllable: a-ban-do-nØ
2. vowel length:
no long vowel before a tautosyllabic consonant, e.g., raptor but *rayptor (a handful of exceptions with a well-defined set of consonant sequences, e.g., angel, chamber)
but: gape, keep, rote, right - is the final consonant an exception? extrasyllabic? or is it not tautosyllabic? :)
kee-pØ
cf. keep - kept: kee-pØ - kep-tØ cf. raptor
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## = ALL WORDS END IN AN (EMPTY OR NON-EMPTY) VOCALIC POSITION

hypothesis \#2: rules (=processes, changes) do not (normally?) delete or insert material, but they involve (a) the movement of an element already present in the representation to another position already present in the representation, or (b) the reinterpretation of an entity already present in the representation
(GB syntax: Structure Preservation Principle - to constrain derivations)
e.g., separate (adj): 2 pronunciations
cf.:
traditional: schwa-deletion
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here: vocalic position either interpreted as schwa or remains uninterpreted (both, esp. the latter, under strictly defined conditions, cf. separate (v) the conditions on non-interpretation are not met) se-pØ-ra-tØ
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## ALL WORDS END IN A VOCALIC SLOT, AND CERTAIN (IF NOT ALL) WORDS ALSO HAVE EMPTY VOWELS IN MEDIAL POSITION

(Note. Empty vowels do not come unrestrained.)

Sometimes the only possible analysis is the one referring to empty vowel slots:

Hungarian:
torony 'tower' tornyok 'towers' torny-ok
Which is the base form? torony? - deletion analysis

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Hungarian:
torony 'tower' tornyok 'towers' torny-ok
szurony 'bayonet' szuronyok 'bayonets'
Which is the base form? torny-? - insertion analysis

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Hungarian:<br>torony 'tower' tornyok 'towers' torny-ok<br>szurony 'bayonet' szuronyok 'bayonets'<br>szárny 'wing' szárnyak 'wings'

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szurony
szárny
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Word-initial empty vowels??

Ex.1: Spanish and (Old) French: Lat. status $\rightarrow$ Sp. estado, Fr. ée tat 'state' España cf. Eng. Spain

Ex.2: Hu. ískola 'school', István 'Steven', asztal 'table' (cf. Ru. stol 'ibid.'), $\underline{u} d v a r$ 'yard' (cf. Ru. dvor 'door'), etc.

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Østatus, ØSpain, Øskola, Øschool, Østol, Ødvor, etc.
3.2 Emptiness below the segment

Are segments atomic? $\rightarrow$ No, they are composed of phonological features/primes E.g., $\quad n$ is [+nasal], $d$ is [-nasal]
$d$ is [+voice], $t$ is [-voice]
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E.g., voicing assimilation: Hu:
méşz 'whitewash' méz 'honey' -ben 'in' mészben = mézben
-tool 'from' $\quad$ mésztöl $=$ méztől

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inertness: certain consonants (and all vowels) (i.e., the so-called sonorants) are unspecified for [voice]

|  | $s z$ | $z$ | $b$ | $t$ |
| :---: | :---: | :---: | :---: | :---: |
| $[$ voice] | - | + | + | - |


|  | $s z$ <br> $(\mathrm{IPA} / \mathrm{s} /)$ | $z$ | $b$ | $t$ | $n$ | $\ldots$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\left[\begin{array}{c}\text { voice] } \\ \ldots\end{array}\right.$ | - | + | + | - | $\varnothing$ |  |

4. Conclusion

- emptiness is present at all levels of phonological representation
- phonology is abstract enough to be able to accommodate entities with no phonetic embodiment

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All the errors are mine.

No animals or celebrities were harmed during the making of this slideshow.

