Hauchumsprung – a consonant-copying sound change?

Ollie Sayeed
University of Pennsylvania
WeCIEC, UCLA, November 2018
Outline

• Sources of Greek *h
• Examples of Hauchumsprung
• Exceptions to Hauchumsprung
• Origins of a consonant-copying change?
Hauchumsprung ("h-jumping")

Don Ringe (forthc.): “If a word began with a vowel [other than o] or *w and exhibited an *h between the first and second syllabics, either intervocalic or as part of a cluster including a sonorant, the *h was copied into the onset of the initial syllable."

e.g. ἡμεῖς ‘we’ < *ahmeis < *ns-me

We see the usual outcome of the *h in its original position; so this is copying, not metathesis.
Sources of Greek *h

1. *s in most positions
   (e.g. ἑπτά ‘seven’ < *septm̥)

2. *HI word-initially
   (e.g. ἥπαρ ‘liver’ < *HIέk̥r̥)

3. insertion before word-initial *u
   (e.g. ὄδρα ‘sea serpent’ < *udréh₂)

But non-initial *h is later lost in all dialects, and ‘psilotic’ dialects also lose initial *h.
The ἵστωρ rule

4. Sturm (2016): initial $^\nu > h$, when followed by a turbulent segment:

$\widehat{\text{ἵστωρ}}$ ‘one who knows’ $< \widehat{\text{μιστόρ}} < \widehat{\text{μιδ-τόρ}}$

$\varepsilon\tau\omicron\omicron$ ‘year’ $< \widehat{\text{μετός}}$

This means we can remove the “or $^w$” clause in the definition of $H$-sprung.
Examples of *H*-sprung

- εὕω ‘singe’ < *ewhō < *h₁eús-, cf. Sanskrit oṣati, Latin ūrō ‘burn’
- ἕως ‘dawn’ < *ewhōs < *h₂eús-ōs, cf. Latin aurōra, Sanskrit uṣás- ‘dawn’
- ἡμαί ‘sit’ < *ēhmai < *h₁eh₁s- (then the rest of the paradigm by analogy)
- ἡνίαι ‘reins’ < *enhiai < *h₂ens-, cf. Latin ānsa ‘handle’, Irish éisi (pl.) ‘reins’
Examples of H-sprung

• ἡμεῖς ‘we’ (Doric ἄμες, Aeolic ἀμμες) < *ahmeis < *n̥s-me, cf. Avestan ahma, Sanskrit asmán
• ἱερός ‘holy; strong’ < *ish₁ro- (cf. Sanskrit isirá- ‘strong’) or *h₂is-ero- (cf. Oscan aïsusis (dat.pl.) ‘sacrifices’, OHG ēra ‘honour’)
• οἶμος ‘way, course’ < *oihmos < *h₁oï-s-mo- < *h₁ei- ‘go’, cf. φροίμιον ‘prelude’
Examples of *H-sprung*

- ἄρμα ‘chariot’ < *h₂er-smn*, from *h₂er-* ‘fit’, cf. ἀραρίσκω

- We also see *H-sprung* in augmented past tenses to stems beginning with *h*:
  
  e.g. ἐ̣ρπον ‘crept’ < *he-erp-on < *e-herp-on*, cf. ἔρπω ‘creep’
The φρουρά rule?

*H-sprung* in consonant-initial words?

- φρουρά ‘watch’ < *pro-horā*
- φροῦδος ‘having gone’ < *pro-hodos*
- φροίµιον ‘prelude’ < *pro-hoimion*

This would let us take away the “vowel-initial” condition completely, and say that *h* spreads to all word-initial onsets.
Problems with the φρουρά rule

The φρουρά rule isn’t regular:

- πέος ‘penis’ < *pes-os
- κεάζω ‘split’ < *kes-
- κρήνη ‘well’ < *kresn-
- τρέω ‘flee’ < *tres-

Also, φροίμων < *pro-hoimion < *pro-oihmion. H-sprung would need to have applied twice!
Exceptions to $H$-sprung

• ἔὖς ‘good’, ἕὖ ‘well’ < either *$h₁su$- ‘good’, cf. Sanskrit $su$-, Hittite $aššu$-; or *$yεςu$- ‘good’, cf. Sanskrit $vάsu$-, Avestan $vohu$-

• ἰός ‘arrow’ < *$(H)iσu$-, cf. Sanskrit $iσu$-, Avestan $išu$-

• οἱμα ‘rush, rage’ < *$oisma$-, cf. Avestan $āešma$- ‘anger’

• ὁμος ‘shoulder’ < *$h₃ems-o$-, cf. Sanskrit $āṁsa$-, Latin $umerus$

Exceptions to $H$-sprung

The copula <$^*h_1es-$: 

• $\varepsilon\iota\mu\acute{i} <$ $^*ehmi$
• $\varepsilon\iota <$ $^*ehi$
• $\varepsilon\sigma\tau\acute{i}$
• $\varepsilon\sigma\mu\acute{e}n ( <$ $^*ehmen)$
• $\varepsilon\sigma\tau\acute{e}$
• $\varepsilon\iota\sigma\acute{i} <$ $^*ehenti$

If speakers levelled the smooth breathing from 3sg and 2pl, why not the full stem $\acute{\varepsilon}\sigma$-?
Some conclusions

• *H-sprung* seems to be a real sound change, though it doesn’t look regular.

• The φρουρά rule may or may not be related.

• Ringe: *H-sprung* is blocked by an o vowel. This is probably not true for o in particular: the change is just messy!
Non-local consonant copying?

_H-sprung_ is unusual – unique? – among sound changes for copying a consonant over a distance.

We do see:

- non-local _vowel_ copying (Hoocąk, Siouan; Rankin et al. 2006)
- non-local consonant _metathesis_ (Bagnères-de-Luchon; Grammont 1905)
- _synchronic_ consonant copying (Amharic-based sex worker code language; McCarthy 1985)
Motor planning?

Is *H-sprung* a motor planning error? Fromkin’s (1971) speech error database from UCLA:

- *John dropped his cup of coffee* → ... *cuff of coffee*
- *also share* → *alsho share*
- *week long race* → *reek long race*

These apparently operate on phonological symbols, not articulatory gestures.
Problems

But...

• Speech errors are not that frequent: UCLA students only collected 600 errors in three years. Is this enough?
• We lose any explanatory link with phonetics: why $H$-sprung, not $T$-sprung or $M$-sprung?
Grassmann’s Law

Ohala (1981): dissimilatory sound changes start off as perceptual compensation for coarticulation.

<table>
<thead>
<tr>
<th>Generation 1</th>
<th>Generation 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>/pʰɛpʰ/</td>
<td>/pɛpʰ/</td>
</tr>
<tr>
<td>produced as</td>
<td>produced as</td>
</tr>
<tr>
<td>[pʰɛpʰ]</td>
<td>[pɛpʰ]</td>
</tr>
<tr>
<td>interpreted as</td>
<td>interpreted as</td>
</tr>
</tbody>
</table>

So GL must have come from speakers hypercorrecting for some long-distance assimilation of aspiration.
Pre-Grassmann, \textit{H-sprung}, \textit{φρουρά́}

Three similar-looking sound changes:

- ‘Pre-Grassmann’: regressive assimilation of aspiration from a stop to a stop
- \textit{H-sprung}: regressive assimilation of aspiration from *h to an empty onset
- \textit{φρουρά́}: regressive assimilation of aspiration from *h to a stop

Can (or should) we have a single sporadic process of regressive assimilation? Or is this just coincidence?
Unclear origins

• A single ‘Ur-H-sprung’: spread aspiration from the onset of the second syllable (whether *h or an aspirated stop) to the beginning of the word.

• This would contain ‘Pre-Grassmann’, H-sprung, and the φρονρά rule as subcases.

• But... what a mess!
Conclusion

• *Hauchumsprung*, copying a medial \(*h\) to the beginning of a word, looks like a sporadic sound change in ancient Greek.

• Apparent examples are hard to explain away; but apparent counterexamples are equally hard to explain away.

• Is this part of a wider process?
Thanks!
sayeedo@sas.upenn.edu