Naughty or nice? or: Why Swedish and Dutch are well-behaved Germanic languages

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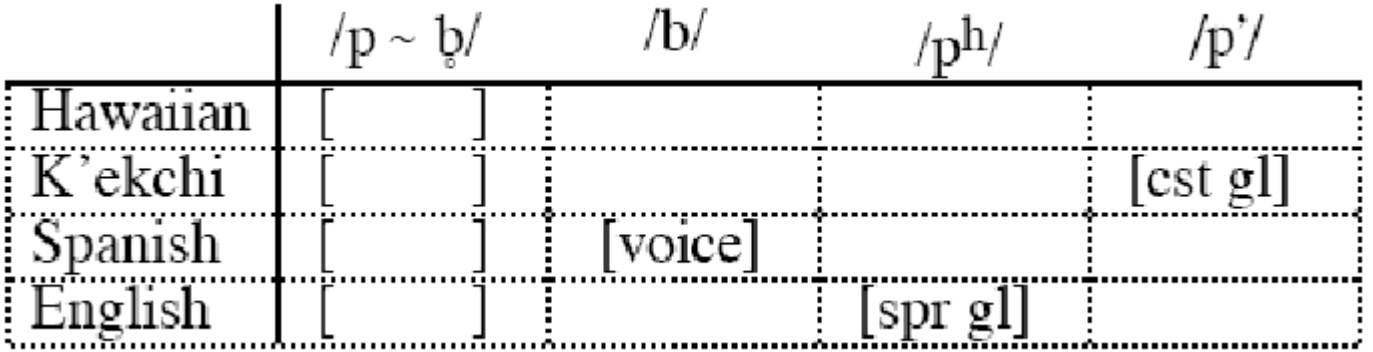
1. **Aims:**

- **in binary laryngeal systems: (initial) plosives in [voice] languages (where they are voiceless unaspirated vs. prevoiced) and [sg] languages (voiceless aspirated vs. devoiced/voiceless unaspirated)**
- **laryngeal realism: difference does not simply lie in the phonetic manifestation of an underlying voiceless vs. voiced distinction, but is of phonological relevance as it has serious consequences for the patterning of the whole system of obstruents**
- **most Germanic languages are straightforward examples for [sg]**
- **two of the "black sheep": Swedish and Dutch**
- **Swedish: "voice fallacy"**
- **Dutch: the usual [voice] analysis is debatable**
- **side-effect: phonetics vs. phonology**

<u>Conclusion</u>: phonological uniformity in the Germanic family of languages is more extensive than usually assumed

2. Laryngeal systems

one-way contrast



	/p ~ b̥/	/b/	/pʰ/	/p'/
Hawaiian	[ ]			
K'ekchi	[ ]			[cst gl]
Spanish	[ ]	[voice]		
English	[ ]		[spr gl]	

two-way contrast

+ three/four-way contrast...

3. Two totally different mechanisms

"The only source of phonological knowledge is phonological behaviour."
(Phonological epistemological principle, Jonathan Kaye, *p. c.*)

- **voice totally inactive in [sg] languages (English, German, etc.): no assimilation!**
- **instead: "bidirectional devoicing":**

obtain [əb̥ˈtʰeɪn]	*matchbox* [ˈmætʃb̥ɒks]
cheesecake [ˈtʃiːz̥kʰeɪk]	*baseball* [ˈb̥eɪsb̥ɔːɬ]
bigfoot [ˈb̥ɪg̊fʊt]	*cookbook* [ˈkʰʊkb̥ʊk]
eggghead [ˈeg̊hed̥]	*life gear* [ˈlaɪfg̊ɪə(r)]
roadster [ˈrəʊd̥stə(r)]	*Shoot back!* [ˈʃuːt ˈb̥æk]

- **=> nothing happens! UR->SR**

3. Two totally different mechanisms

- **"initial and final de-voicing": nothing happens!**

UR -> SR:

Utterance-initial	Utterance-final
(a)	(b)
Bravo! [ˈb̥rɑːvəʊ]	*Mad!* [ˈmæd̥]
Good! [ˈg̊ʊd̥]	*Go ahead!* [əˈhed̥]
Zany! [ˈz̥eɪnɪ]	*Think big!* [ˈb̥ɪg̊]
Damn! [ˈd̥æm]	*Bob!* [ˈb̥ɒb̥]
Very much! [ˈv̥erɪ]	*Leave!* [ˈliːv̥]

3. Two totally different mechanisms

- **plus: intersonorant voicing of lenis:**

reading, reads it, Gardner, badly, bingo,

big name, give it, Play Ball

- **phonetics: the influence of the spontaneous phonetic voicing of the flanking sonorants, surface string-adjacency is the only requirement, applies automatically irrespective of phon/morph/synt context/structure**

3. Two totally different mechanisms

"The only source of phonological knowledge is phonological behaviour."
(Phonological epistemological principle, Jonathan Kaye, *p. c.*)

As opposed to

•[voice] languages: "Distinctive [voice] implies regressive voicing assimilation" (van Rooy & Wissing 2001)

- **Apparently countered by Swedish (Ringen & Helgason 2004: "Distinctive [voice] does not imply regressive assimilation: evidence from Swedish"): see below**

•Spanish, French, Slavic, Hungarian, etc.

3. Two totally different mechanisms

RVA in Hungarian:

rabtól [ˈrɒptoːl]	*matchbox* [ˈmɛdʒboks]
rézkarc [ˈreːskɒrts]	*baseball* [ˈbeːzboːl]
hangfal [ˈhɒŋkfɒl]	*tökből* [ˈtøgbøːl]
éghez [ˈeːkhɛz]	*afgán* [ˈɒvgaːn]
roadshow [ˈroːtʃoː]	*kertből* [ˈkɛrdbøːl]
(glosses: 'from prisoner'	(glosses: 'toy car'
'copper etching'	'ibid.'
'loudspeaker'	'from pumpkin'
'to sky'	'Afghan'
'ibid.')	'from garden')

4. Two of the "black sheep": Dutch and Swedish

Swedish:

- considerable prevoicing in initial plosives (cf. Ringen & Helgason 2004, Petrova et al. 2006, Helgason & Ringen 2008): 93% of the subjects' stops had prevoicing longer than 10 ms

Swedish initial plosives

[p^{h}]acka 'pack'	[t^{h}]ak 'roof'	[k^{h}]ub 'cube'
[b]ad 'bath'	[d]äck 'deck'	[g]ap 'mouth'

4. Two of the "black sheep": Dutch and Swedish

Swedish:

- but: no (regressive) assimilation of some voicing property is attested:
- "the [voice] fallacy of [sg] languages" is but the result of phonetic interpretation; an optical illusion that is redundant and not an issue for phonology
- plus: phonetic evidence (!):

- Helgason & Ringen (2008): female subjects had significantly *shorter* prevoicing, not longer as in Hungarian, than did the male subjects (66 ms vs. 109 ms)

4. Two of the "black sheep": Dutch and Swedish

Dutch:

- **laryngeal assimilations:**
  - **untypical patterns:**
  - **a) all voiceless obstruents trigger the devoicing of a *following* voiced fricative**
  - **b) voiced stops /b d/ trigger *regressive* voicing assimilation of all obstruents**
  - **c) past tense allomorphy**
  - **these processes would suggest that Dutch exploits both [spread glottis], to spread rightward in a) and c), and [voice], to spread leftward in b)**

4. Two of the "black sheep": Dutch and Swedish

Dutch: **Obstruent assimilation patterns**

- **therefore, Dutch seems to exploit *both* [sg] and [voice] in a binary system**
- **This is both strange for a Germanic language and deemed impossible under laryngeal realism**

Honeybone (2005:337) on research by Vaux, Tsuchida, Cohn & Kumada, Iverson & Salmons, Jansen:

"A reasonable null hypothesis remains, however, that specifications will be the same across obstruent classes within one language, unless there is evidence to the contrary."

4. Two of the "black sheep": Dutch and Swedish

Dutch: **Obstruent assimilation patterns**

- **The origin of voicing is attributed to Romance/French influence (Iverson & Salmons 2003b, 2008, etc): (improper) language contact**

- **Huber & Balogné Bérces (2010):**

arguments are strong in favour of either [voice] or [sg] (and they both run into representational problems under laryngeal realism, esp. in GP)

4. Two of the "black sheep": Dutch and Swedish

Conclusions wrt Dutch:

- **Dutch is a mixed system, but:**
- **only RVA makes it a [voice] system**
- **the fricative system is based on [sg]**
- **the past tense allomorphy is also based on [sg]**
- **therefore: [sg] may turn out to give a better fit in the overall analysis/ classification of the language**
- **plus: phonetic evidence (!) (van Alphen 2004):**
- **prevoicing absent in 25% of initial voiced plosive productions (studies on other languages, e.g., Polish, did not report such a high proportion of unprevoiced tokens. Cf. Hung: 100% of the initial lenis stops had prevoicing - Gósy & Ringen 2009)**
- **male speakers: more tokens with prevoicing (86% vs 65%)**

Conclusions

- **phonetic diversity does not necessarily imply phonological differences**
- **Germanic languages are much more uniform phonologically than assumed in recent literature**

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