

HQSYN16 - Task #3720

Task # 3669 (New): RA1a - Analysis and cataloguing of artifacts

Task # 3688 (Closed): Separation of some phonemes into distinct phones

Analyze unexpected results of listening test on voiced/unvoiced "ř"

27.01.2016 12:25 - Matoušek Jindřich

Status:	Closed	Start date:	27.01.2016
Priority:	Normal	Due date:	14.02.2016
Assignee:	Skarnitzl Radek	% Done:	100%
Category:		Estimated time:	0.00 hour
Target version:	RA1: Analysis of artifacts in synthetic speech		
Description			
Results of so-far conducted listening tests show some inconsistencies in what was expected versus what the listeners judged - see #3713-2 . The sentence IDs correspond to the IDs in the listening test , so you can listen to the sentences there.			
The used phonetic alphabet is here .			
Please try to analyze these unexpected results given the information provided in #3713-2 . You may find some context to be inappropriate, or some other mismatches, ...			

History

#1 - 02.02.2016 17:14 - Skarnitzl Radek

- Status changed from New to Assigned
- % Done changed from 0 to 40

#2 - 08.02.2016 10:41 - Skarnitzl Radek

- Status changed from Assigned to Resolved

In general, it is important to realize that the voicing in /ř/ is the least stable of all phonologically voiced obstruents (Skarnitzl, 2011, p. 215). It tends to get lost even between vowels (words like *pořád*) and between voiced sounds (*v řadě, bříza, pařba*). It is quite likely, therefore, that phonetic voicing may have been absent in contexts marked as voiced. Insertion of such a (partially) devoiced /ř/ into a voiceless context thus would not be disturbing.

Specific notes to the individual realizations:

sentence #3 - ..., ohnivzdorné bundy a pep*ř*ové kanony.

- total score: - 0.14
- [ř] score: - 0.43
- baseline is voiceless, neither Ř has a disturbing effect
- there is no obvious reason for such a bias in the evaluation

sentence #11 - Vep*ř*ové je téměř*ř* tabu.

- total score: - 0.29
- [ř] score: - 0.14
- the first baseline Ř is clearly from a voiced context, the second is practically voiceless
- the timing is off in both the baseline and noSubsts versions, but baseline sounds worse, there is no obvious explanation for the bias

sentence #12 - a aby nast*ř*ádal na sibi*ř*ský výlet, ...

- total score: - 1.0
- [ř] score: - 0.43
- the first baseline Ř is voiced towards the end, the second is voiceless
- there is a huge quality change in the [a:] in nastř+á+dal which may have caused the biased evaluation_

sentence #16 - zdravotnické pot*ř*ěby a léka*ř*ské služby.

- total score: - 0.43
- [ř] score: - 0.14
- both baseline Ř sounds are voiceless and not disturbing
- the bias may be due to timing which is off in noSubsts, especially in potřeby

sentence #22 - A mod*ř* nehybně odplouvá tak jako řeka, ...

- total score: - 0.71
- [ř] score: - 0.29
- baseline is fully voiced, which corresponds to Moravian assimilation (voicing before sonorants), noSubsts is voiceless and correct

- since this is quite a rare word, the spelling and expectation of [d] may have prevailed, but this is just speculation

sentence #25 - Vě*ř*te mi, ...

- total score: - 0.29

- [ř] score: 0.29 was evaluated as better in noSubsts, problem may be somewhere else

- the voiced context of the baseline Ř is audible on closer analysis, but it is phonetically voiceless

sentence #27 - , podivil se signatá*ř* Martin Mejst*ř*ík.

- total score: - 0.57

- [ř] score: 0.43 was evaluated as significantly better in noSubsts, problem may be somewhere else

- both baseline Ř sounds are voiceless and not disturbing

sentence #29 - Množme se a spo*ř*me.

- total score: - 1.0

- [ř] score: - 0.14

- In this item, the voicing is reversed! The noSubsts version is fully voiced, i.e. with Moravian assimilation, the baseline is voiceless = correct, and the score is thus logical.

sentence #30 - Hrát proti mladší soupe*ř*ce, ...

- total score: - 1.0

- [ř] score: - 0.57

- the baseline Ř is voiceless, the timing is very much off in the [e] before Ř in the noSubsts version; in other words, both Ř sounds are ok, the biased evaluation is probably due to the context

sentence #35 - ..., u*ř*knutí a podobně

- total score: - 0.43

- [ř] score: 0.29 was evaluated as better in noSubsts, problem may be somewhere else

- both Ř sounds are voiceless and although the voiced context in baseline is audible upon closer analysis, it is not disturbing

sentence #40 - ..., vysvětlil jeho ošet*ř*ující léka*ř* Ilja Kotík.

- total score: - 0.14

- [ř] score: - 0.14

- all Ř sounds are voiceless and not disturbing

sentence #41 - Hovo*ř*te o t*ř*ech týdnech.

- total score: - 0.57

- [ř] score: 0.29 was evaluated as better in noSubsts, problem may be somewhere else

- all Ř sounds are voiceless and not disturbing

sentence #42 - Pracovali téměř*ř* výhradně u pošty

- total score: - 0.29

- [ř] score: - 0.14

- both Ř sounds are voiceless and not disturbing

#3 - 08.02.2016 10:41 - Skarnitzl Radek

- % Done changed from 40 to 100

#4 - 08.02.2016 10:53 - Matoušek Jindřich

- Status changed from Resolved to Closed

#5 - 08.02.2016 10:59 - Matoušek Jindřich

- Precedes Task #3734: Evaluate analysis of unexpected results of listening test on voiced/unvoiced "ř" added

#6 - 19.02.2016 12:38 - Matoušek Jindřich

- Parent task changed from #3669 to #3688

#7 - 06.05.2016 13:30 - Matoušek Jindřich

- Precedes deleted (Task #3734: Evaluate analysis of unexpected results of listening test on voiced/unvoiced "ř")