

Phonetic Correlates of Accent Authenticity in Voice Disguise

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It is often claimed that it is relatively easy to detect an imitated foreign accent, because:

- speaker retains much of the phonetics of his/her mother tongue
- s/he shows errors, overstatements, inconsistencies and discrepancies brought about by limited competence in the relevant foreign language
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 - consistency in the interference features produced by non-native speakers
 - ability of listeners to differentiate between an imitated and an authentic accent
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Listening Experiment – Stimuli

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- stimulus sentence:
 - „*Die verstärkten Sicherheitsvorkehrungen der Banken könnten Räuber abgeschreckt haben.*”
(Increased security measures by banks may have deterred robbers.)
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Subjects – Audio

Four groups of three speakers

- 1 most authentic sounding native German speakers
(3x French accent)
- 2 least authentic sounding native German speakers
(3x American-English accent)
- 3 most authentic sounding non-native German speakers
(1x French, 1x American-English and 1x Czech accent)
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- realisation of /h/
- junctural glottalisation
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Reduction of final /ən/ by realising a syllabic nasal:

- [ha:b̩] or [ha:m̩] (rather than [ha:bən], <haben>, 'to have')
- [fɛɹ̩ftɛɹ̩kt̩] (rather than [fɛɹftɛɹktən], <verstärkten>, 'increased')
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Phonetic correlates of accent authenticity in voice disguise

└ Phonetic correlates of accent authenticity

Realisation of final /ən/ II

Full realisation of final /ən/

⇒ **judged authentic**

Realisation of final /ən/ III

1 speaker imitated both a French and an AE accent

- French: 5x full realisation
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- Germans as well as native French speakers produced junctural glottalisation in <Räuber abgeschreckt>
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Postvocalic /r/ – French Accent

- phonetic correlate of German /V+r/ ([ɐ]) as in <Räuber> [ʁɔøbɐ] or <vor> [fo:r̩]
- 2 of 3 speakers judged as authentic used postvocalic (uvular?) friction ([ʁ] or [ʁ̥]) in places where in German [ɐ] would be expected
- the native French speaker judged as authentic also produced postvocalic /r/-friction
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Features of authentic and non-authentic sounding French accents

Authentic:

- full realisation of final /ən/
- /h/ is omitted or substituted by [ʔ]
- glottalisation as well as smooth onset in vowel juncture
- postvocalic /r/-friction instead of [ʁ]

Non-authentic:

- reduction of final /ən/ by realising a syllabic nasal
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However,

consistent use of stereotypical patterns is not a guarantee for authenticity.

/r/ – American-English Accent

- initial /r/ as in <Vorkehrungen, **R**äuber, abgeschreckt>
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Features of authentic and non-authentic sounding AE accents

Authentic:

- inconsistent realisation of final /ən/ (3/5 times full realisation)
- velar fricatives for initial /r/

Non-authentic:

- 2 of 3 speakers consistently reduced final /ən/ by realising a syllabic nasal, but 1 speaker did not reduce it
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- in general, speakers exhibiting too many features of German are judged to be non-authentic
- authentic foreigners do not seem to be any more consistent at producing 'errors' than German imitators
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