‘Spread’ won’t spread
There are no fortis+fortis clusters in English

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monomorphemic obstruent clusters: wide-spread view

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- but English is not a voicing language
Comparison of "voice" and nasal place sharing

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*** ten pounds [np]/[mp], ten quid [nk]/[ŋk]
fortis vs lenis

fortis obstruents

- may spread their Cness on adjacent sounds (voicelessness, aka aspiration, preglottalization, shortening of preceding vowel; nb aspiration is “shortening of (the voiced part of) the following vowel”)
- represented by [spread (glottis)], [aspirated], H, . . .
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**lenis obstruents**
- may accommodate (some of) the Vness (spontaneous voicing) of adjacent sounds (sonorants)
- represented by the absence of [spread], [aspirated], H, . . .
voiceless fricative+plosive clusters

- plosives are not aspirated after [s] (eg in spar, star, scar)
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    even *fifteen* (G. Kiss 2017), so *fi$ftéen$ ∼ *fif #teen*
- a simpler account (cf Twaddell 1935, Davidsen-Nielsen 1969): fortis fricatives are followed by lenis plosives (but cf Kirby & Ladd 2016)
  ⇒ *spar* [sba:], *star* [sda:], *scar* [sga:], *kaftan* [kafdan]
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  \[ \implies \text{spar} [\text{sba}:], \text{star} [\text{sda}:], \text{scar} [\text{sga}:], \text{kaftan} [\text{kafdan}] \]
- mystique [misdíjk], mystic [mísdik], mist [misd], and consequently missed [misd]
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    even *fifteen* (G. Kiss 2017), so fi$ftéen$/$fif$♯teen$
  fortis fricatives are followed by lenis plosives (but cf. Kirby &
  Ladd 2016)
  \[ \Rightarrow \text{spar [sba:], star [sda:], scar [sga:], kaftan [kafdan]} \]
- *mystique [misdíjk], mystic [mísdik], mist [misd]*, and consequently *missed [misd]*
- nb a pretonic fortis plosive is aspirated irrespective of the
  preceding context
whence the past allomorph [t]?

- does [spread] spread on the suffix? across #? (this process would be limited to D and Z, no other case of regular fortis~lenis alternation in the language)
whence the past allomorph [t]?

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- so \textit{missed} \([\text{misd}], \text{sniffed} \ [\text{snifd}], \text{fished} \ [\text{fiSd}]\)
- likewise \textit{dipped} \([\text{dipd}], \text{itched} \ [\text{itSd}], \text{kicked} \ [\text{kikd}]: \text{the suffix displays a voiceless, but not fortis(!) allomorph}\)
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- [t] as past/pp occurs irregularly: burnt, spelt, spoilt
three types of morpheme-internal obstruent clusters

fortis+lenis
[sg]: discrete, discussed, disgust; [sd]: mistake, misdate
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Aztec, lieutenant [levténənt] ([t] is aspirated, ie cannot be preceded by [s] or [f], although the preceding fricative is not voiced)
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fortis+fortis only across morphemes
mis#time, beef #cake
fortis+lenis or lenis+fortis?

revealed by aspiration: [t] is aspirated, [d] is not
fortis+lenis or lenis+fortis?

revealed by aspiration: [t] is aspirated, [d] is not

- Aztec [áztek] vs Mixtec [míjsdek]
fortis+lenis or lenis+fortis?

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morpheme identity ("don’t alternate")
fortis+lenis or lenis+fortis?

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- Aztec \([\acute{\text{a}}ztek]\) vs Mixtec \([\acute{\text{m}}\acute{\text{i}}jsdek]\)
- galactose \([\text{g}\acute{\text{a}}l\acute{\text{a}}\acute{\text{g}}t\acute{\text{a}}w\acute{\text{s}}]\) vs anecdote \([\acute{\text{a}}n\acute{\text{a}}k\acute{\text{a}}d\acute{\text{a}}w\acute{\text{t}}]\)
- tractate \([\text{tr}\acute{\text{a}}\acute{\text{g}}t\acute{\text{e}}\acute{\text{j}}t]\)

morpheme identity ("don’t alternate")

- track \([\text{tr}\acute{\text{a}}k]\)
fortis+lenis or lenis+fortis?

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- so tracked [trakd] (and tracks [trakz])
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repeat: there are 3 types of obstr. cluster: [bz], [pz], [bs], *[ps]
fortis+lenis or lenis+fortis?

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- tractate \[tr\acute{a}gt\acute{e}jt\]

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fortis+lenis or lenis+fortis?

revealed by aspiration: \([t]\) is aspirated, \([d]\) is not

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repeat: there are 3 types of obstr. cluster: \([bz]\), \([pz]\), \([bs]\), *[ps]*

- rhapsody [pz] vs absolute [bs]
- Leipzig [pz] (no contrast between [pz] and “[ps]”)
- (cf absurd [bs] vs absorb [bz])
fortis+lenis or lenis+fortis?

potentially ambiguous cases
fortis + lenis or lenis + fortis?

potentially ambiguous cases

- *tract* [tragt] or [trakd]?
fortis+lenis or lenis+fortis?

potentially ambiguous cases

- *tract* [tragt] or [trakd]?
- perhaps [tragt] to avoid alternation (cf *tractate* [trágtèjt])
fortis+lenis or lenis+fortis?

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- so *traction* [tragʃən]
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potentially ambiguous cases

- *tract* [trækt] or [trakd]?
- perhaps [trækt] to avoid alternation (cf *tractate* [træktəjt])
- so *traction* [træʃən]
- note that the shortness of the vowel may be caused either by the [k] of [kd] or by the [t] of [gt]!
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- note that the shortness of the vowel may be caused either by the [k] of [kd] or by the [t] of [gt]!
- looks like this contrast is neutralized when not prevocalic: *tracked* [trakd] = *tract* [tragt]
why do we misanalyse so many lenis obstruents?

spill [spbil], lisp [lispb], lips [lipsz]
why do we misanalyse so many lenis obstruents?

\( \text{spill} \ [s\beta b], \ \text{lisp} \ [l\beta p], \ \text{lips} \ [l\upsilon s] \)

- because speakers of voicing languages (used to voice assimilation) would wrongly interpret transcriptions
  \( \text{spill} \ [s\beta l] \) as \*\([z\beta l]\),
  \( \text{lisp} \ [l\beta s] \) as \*\([lizb]\),
  \( \text{lips} \ [l\upsilon z] \) as \*\([libz]\)
why do we misanalyse so many lenis obstruents?

\textit{spill} [sp\textipa{bil}], \textit{lisp} [lis\textipa{p}b], \textit{lips} [lip\textipa{sz}]

- because speakers of voicing languages (used to voice assimilation) would wrongly interpret transcriptions
  \textit{spill} [sbil] as *[zbil],
  \textit{lisp} [lisb] as *[lizb],
  \textit{lips} [lipz] as *[libz]

- this danger is avoided by the common transcriptions
  \textit{spill} [spil],
  \textit{lisp} [lisp],
  \textit{lips} [lips]
why do we misanalyse so many lenis obstruents?

\[
\text{spill } [\text{s\textipa{bil}}], \text{lisp } [\text{lisp\textipa{b}}], \text{lips } [\text{lipsz}]
\]

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  \text{spill } [\text{sbil}] \text{ as } *[\text{zbil}],
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- this danger is avoided by the common transcriptions
  \[
  \text{spill } [\text{spil}],
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  \text{lips } [\text{lips}]
  \]

- so our misanalysis is a pedagogical device
why do we misanalyse so many lenis obstruents?

**spill** [spʰbil], **lisp** [lispʰb], **lips** [lipsˈz]

- because speakers of voicing languages (used to voice assimilation) would wrongly interpret transcriptions
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- this danger is avoided by the common transcriptions
  - **spill** [spil],
  - **lisp** [lisp],
  - **lips** [lips]

- so our misanalysis is a pedagogical device
- we are also misinformed by spelling
conclusions

- “not all is fortis that whispers” (voicelessness is not an indicator of fortisness)
conclusions

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- *fortis+fortis within a morpheme (= [spread] won’t spread; more precisely, but less wittily: [spread] is never shared)
conclusions

- “not all is fortis that whispers” (voicelessness is not an indicator of fortisness)
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- fortis plosives are aspirated irrespective of preceding context (= if a pretonic plosive is not aspirated, it is not fortis)
conclusions

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- D has two allomorphs: [d] and [əd]
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- Z has two allomorphs: [z] and [əz]
conclusions

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- Z has two allomorphs: [z] and [əz]
- corroboration (or refutation?) from phoneticians needed
thanks to

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