Variable rhoticity in rock music performance across British and American singers:
New evidence for Singing English?

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Sociolinguistics

- Trudgil (1983)
 - 1960s and the 1970s British rock bands, mainly the Beatles and the Rolling Stones, adopted
 rhotic pronunciation in order to sound more American
- Coupland (2011), Gibson (2011)
 - o musicians adopt given accentual features in singing to build their on-stage image
- Simpson (1999)
 - musicians subconsciously adopt rhoticity and other pronunciation features commonly associated with General American due to the American influences in popular culture

Phonetics (Wells 2010)

- less vowel reduction
 - \circ $\theta > \alpha' \mid \theta > eI$ ("Hallellujah")
- lax vowels become tense
 - KIT > FLEECE ("still got the blues")
- stress shifting
 - o (')halle'lujah > hal'lelu'jah
- change in /r/ quality
 - uvular > post-alveolar / retroflex

Research questions

- Are British and American vocalists really imitating one another or is there a more universal Singing English which has its own set of rules?
- To what extent are singing constraints more responsible for the loss/retention of rhoticity?
- How different are rhoticity rates of the same speakers in spoken and sung English?

Hypothesis

- adopting rhoticity when singing is dependent not only on socio-cultural constraints,
 but also on specific phonetic properties that are associated with singing:
 - CONTEXT: word-final vs pre-consonantal
 - STRUCTURE: verse vs chorus
 - TEMPO: slow (<100 bpm) vs moderate (~120 bpm) vs fast (>120 bpm)
 - VOCAL DELIVERY: normal vs fast

The bands

- late 1960s early 1970s
 - Led Zeppelin (London)
 - The Doors (Los Angeles)
- late 1970s early 1980s
 - Joy Division (Salford)
 - Talking Heads (New York City)
- late 1990s early 2000s
 - Arctic Monkeys (Sheffield)
 - Foo Fighters (Seattle)



The vocalists – % rhoticity in interviews

late 1960s – early 1970s

Robert Plant Led Zeppelin



~0%

Jim Morrison *The Doors*



~100%

late 1970s – early 1980s

lan Curtis *Joy Division*



~0%

David Byrne Talking Heads



~100%

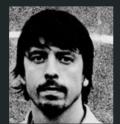
late 1990s – early 2000s

Alex Turner
Arctic Monkeys



~0%

Dave Grohl Foo Fighters



~100%

The songs

Led Zeppelin	The Doors	Joy Division	Talking Heads	Arctic Monkeys	Foo Fighters
Communication Breakdown	Riders on the Storm	Love Will Tear Us Apart	Burning Down The House	I Bet You Look Good On The Dancefloor	Walk
Heartbreaker	Break On Through	She's Lost Control	Once in a Lifetime	R U Mine?	Rope
Immigrant Song	Light My Fire	Atmosphere	Mind	Do I Wanna Know?	Arlandria
Stairway to Heaven	Soul Kitchen	Disorder	Cities	Why'd You Only Call Me When You're High?	Dear Rosemary









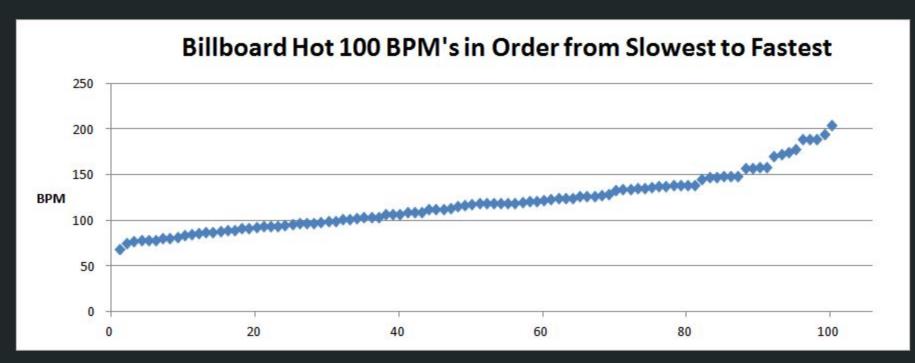




Data analysis – tempo (bpm)

	Tempo (BrE)	Tempo (AmE)	
AVG	125.67	127.42	
SD	38.46	20.80	
MIN	85	103	
MAX	206	183	

Data analysis – tempo (bpm)



Source: https://popmusictheory.com/song-tempo/

Data analysis – % rhoticity

late 1960s – early 1970s

Robert Plant Led Zeppelin



6.8%

Jim Morrison *The Doors*



26.7%

late 1970s – early 1980s

lan Curtis *Joy Division*



62.2%

David Byrne Talking Heads



63.2%

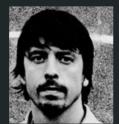
late 1990s – early 2000s

Alex Turner
Arctic Monkeys



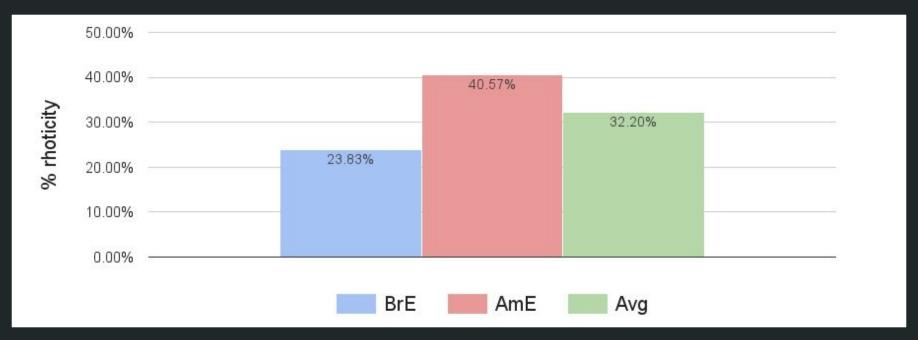
1.9%

Dave Grohl Foo Fighters

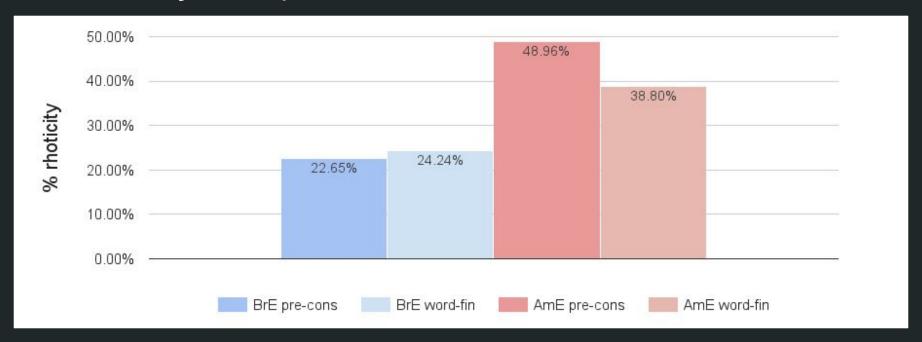


31.8%

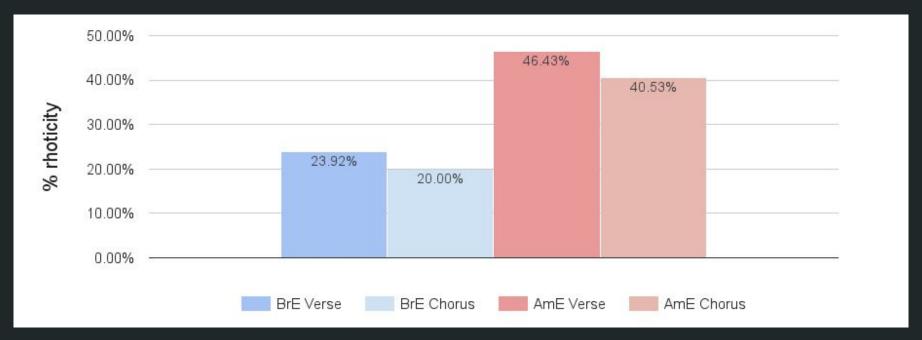
Data analysis – % rhoticity



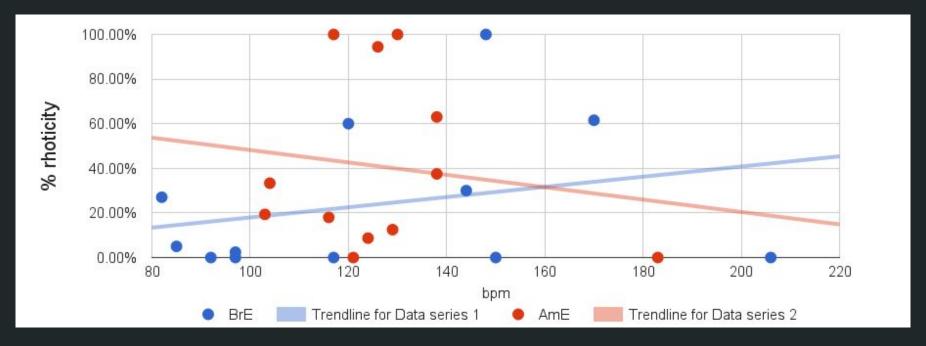
Data analysis – pre-consonantal vs word-final



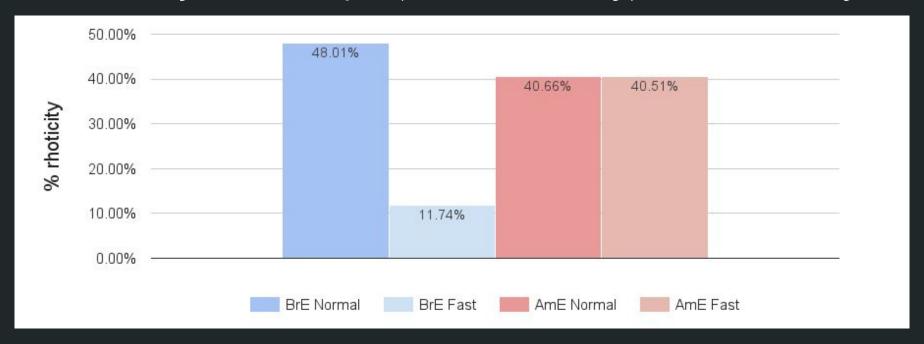
Data analysis – verse vs chorus



Data analysis – tempo (bpm) vs % rhoticity



Data analysis – tempo (vocal delivery) vs % rhoticity



Conclusions

- rhoticity rates of spoken English are drastically different from singing English
- rhoticity rates seem to be dependent on song tempos and vocal delivery
- British and American vocalists display different patterns for rhoticity
 - American vocalists seem to prefer non-rhotic variants in word-final positions
 - American vocalists have more non-rhotic variants in chorus parts than verse parts
 - British vocalists tend to have a more natural non-rhotic pronunciation when singing fast

Discussion

- artists tend to switch their accents during their career
- differences between studio recordings and live performance
- more data and statistical analysis needed

References

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