



# What's the /t/?

## Comparing coronals in the speech of Danish drag queens

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### Why coronals?

/s/ production has been shown to differ between the sexes in many languages: female speakers tend to have higher spectral center of gravity in their productions of /s/ than male speakers (Flipsen et al 1999). Other studies have shown that gay male speakers pattern like female speakers (Munson et al 2006) and even that adolescent girls can pattern with adult male speakers (Stuart-Smith 2007). These studies suggest that differences in /s/ are not automatic consequences of vocal tract physiology, but can reflect gendered differences in articulation. The coronal stop /t/ is also included here because it is affricated in Copenhagen Danish, and has been shown to be involved in indexing gender in combination with /s/ in perceptual studies (Pharao & Maegaard 2017).

### Why drag queens?

Drag queens present an exaggerated image of femininity (Barret 1999, Calder 2019). In this way, speech in drag queen performance can be seen as a type of parodic performance of stereotypical speech, offering a possibility to study overt stylizations of (hyper)feminine speech (Coupland 2003). Therefore, studying variation in /s/ and /t/ in drag queen performances in Danish may tell us about the status of /s/ and /t/ as indexes of gender in the Danish speech community.

#### How drag queens?

Episodes of the afternoon talk radio show "Er du sunshine?" on the national Radio 24/7 were downloaded to obtain samples of spontaneous speech produced by drag queens from the collective Vesterbro Dragudlejnings-service (Vesterbro Drag Rental).



#### Data

Speakers: 4 drag queens, 4 straight female speakers, 4 straight male speakers, 5 gay male speakers in recordings from Radio 24/7.

20 tokens of /s/ and 20 tokens of (the affrication of) /t/ for each speaker.

Spectral moments were measured in Praat and modelled in R 3.5.1.

### Results Sibilants

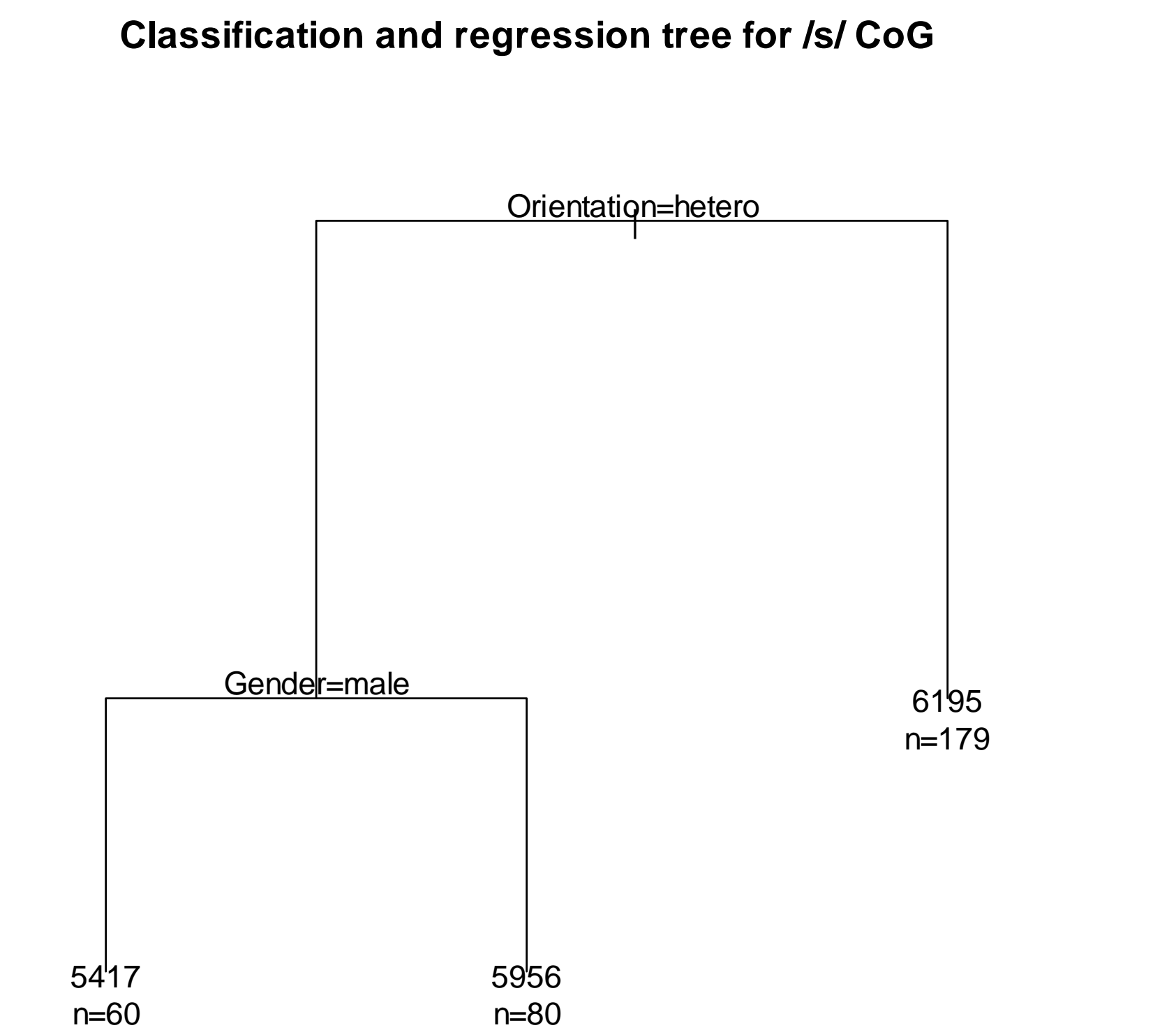


Figure 1: CART analysis for /s/  
The text at each node splits the data. Speakers fulfilling the criterion move left in the tree, others move right.

#### Model summary for /s/

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	6207.38	112.0	55.419	< 2e-16 ***
Gay men	-22.99	151.4	-0.152	0.879
Straight men	-789.98	171.7	-4.601	6.11e-06 ***
Straight women	-251.57	158.9	-1.583	0.114

### A closer look

The 4 drag queens from Vesterbro Dragudlejnings-service in the radio show articulate /s/ in a manner similar to straight women and gay men with higher spectral CoG as compared to straight men (figure 1 and model summary).

But the spectral CoG of their /t/ is the same on average as the straight men (figure 2 and model summary) and different from that of the straight women and gay men. As shown in figure 3, this pattern for /s/ and /t/ hold for all 4 of the drag queens studied here.

This suggests that they are exploiting the *contrast* between /s/ and /t/ in their performance of hyperfemininity: by producing male gender conforming /t/, their use of gender non-conforming fronted /s/ arguably becomes more salient in their drag queen performance.

### Stops

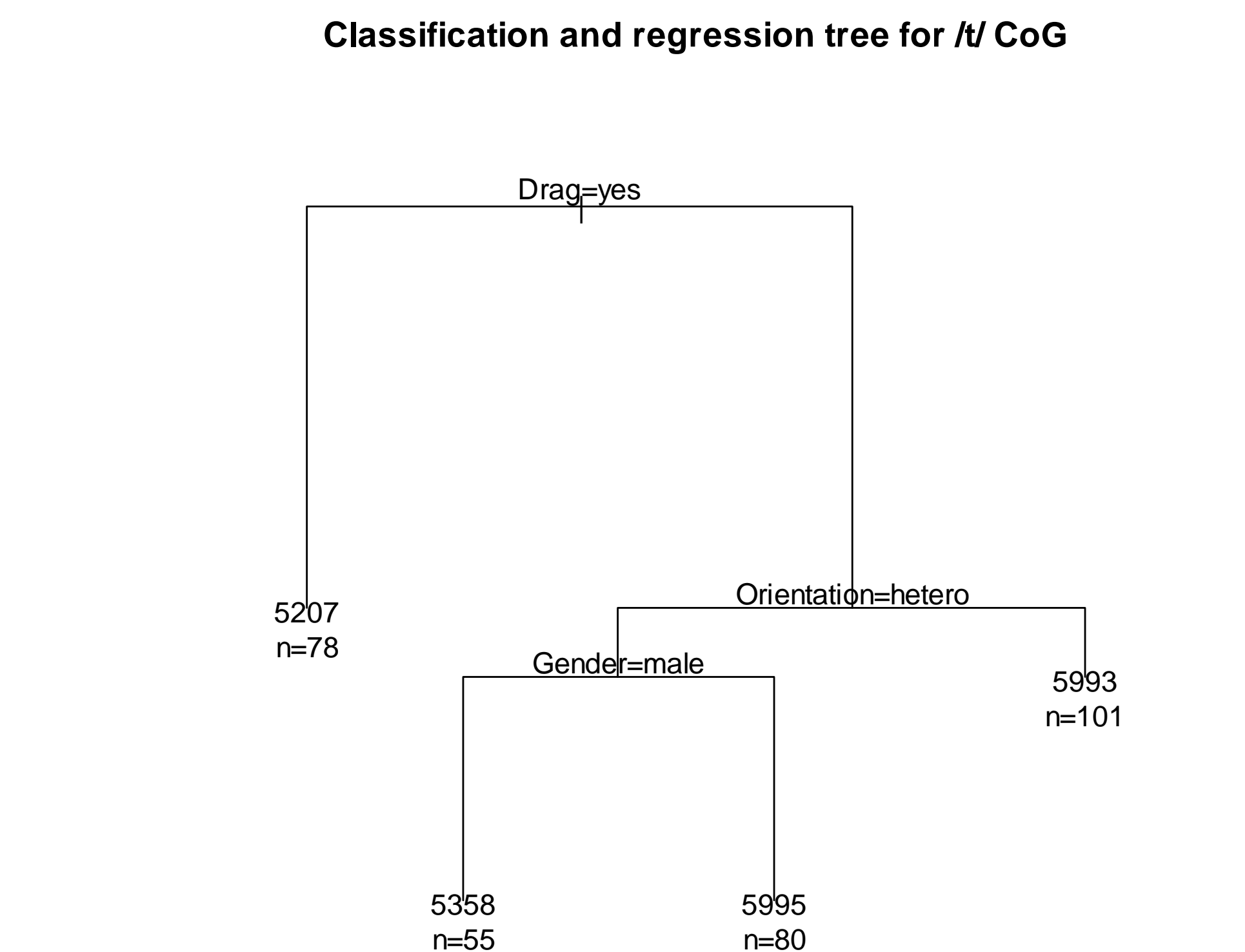


Figure 2: CART analysis for /t/  
The text at each node splits the data. Speakers fulfilling the criterion move left in the tree, others move right.

#### Model summary for /t/

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	5207.0	125.1	41.639	< 2e-16 ***
Gay men	785.7	166.5	4.720	3.58e-06 ***
Straight men	150.6	194.5	0.774	0.439
Straight women	788.1	175.7	4.484	1.03e-05 ***

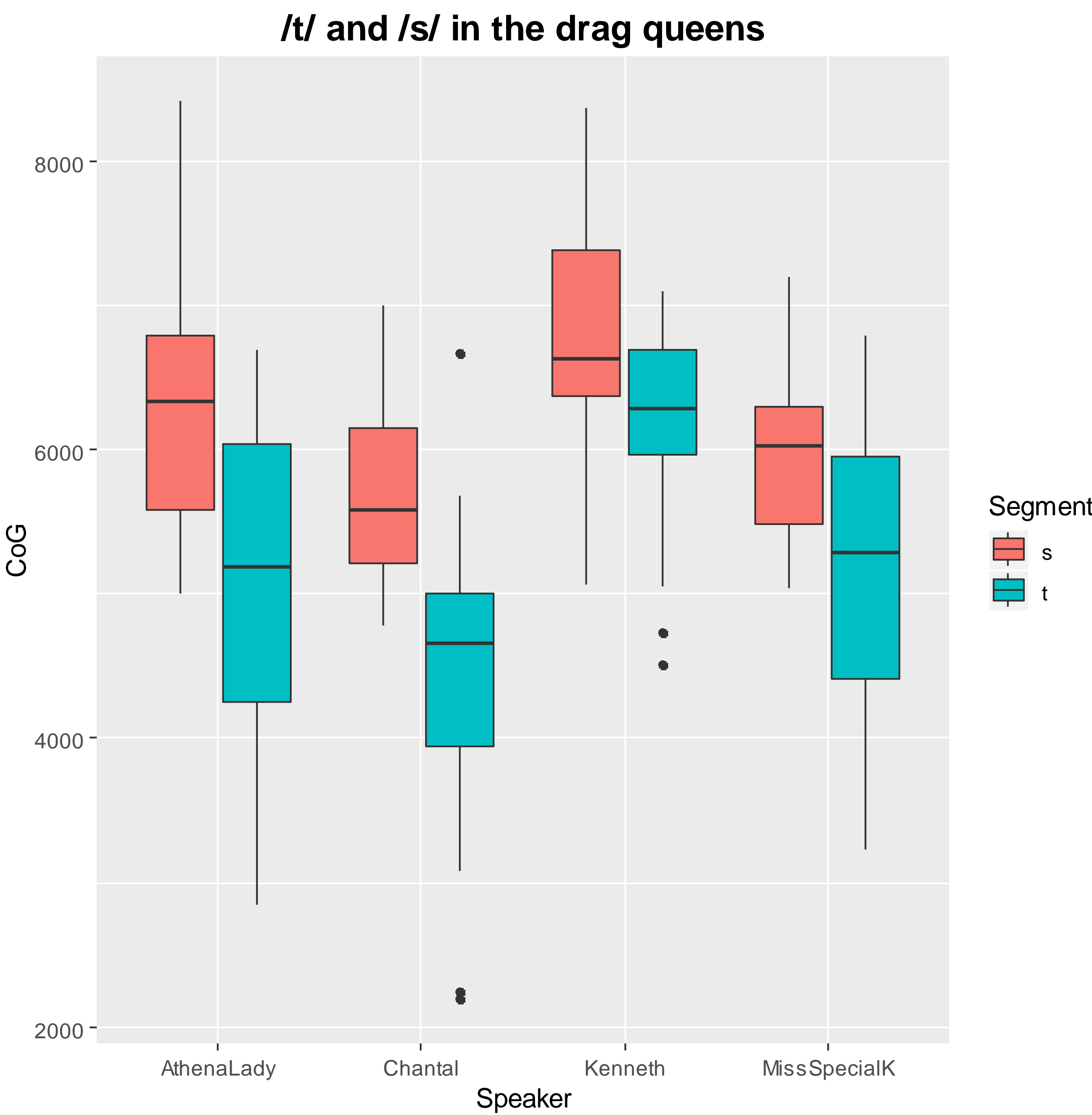


Figure 3: Distribution of spectral CoG for /s/ and /t/, drag queens

The pattern supports the notion that /s/ fronting is the stereotypical index of femininity in Danish.

Together with results from perceptual studies of /s/ and /t/ variation in other groups of speakers in Copenhagen (Pharao & Maegaard 2018, Lillelund-Holst, Pharao & Maegaard 2019), these results show that the co-occurrence of variants in the speech stream may help to shape the path through the indexical field

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