



LIFESPANS & STYLES

Undergraduate Working Papers on Intraspeaker Variation

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Volume 2, Issue 2

Article 2

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2016

## “Whey Aye My Good Sir”: Has Cheryl Fernandez-Versini’s Accent Moved from Tyneside English to RP?

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ISSN: 20571720

doi: 10.2218/lv2i2.2016.1609

This paper is available at: <http://journals.ed.ac.uk/lifespansstyles>

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## Abstract

This article analyses the speech of Cheryl Fernandez-Versini (née Tweedy, formerly Cole), henceforth “Cheryl”, who experienced rapid geographical and socioeconomic mobility between 2002 and 2014. In 2002, Cheryl was a working-class 19-year-old from Newcastle Upon Tyne, in north-east England. Since then, she has risen to fame on the talent show *Popstars: The Rivals*, in the girl band *Girls Aloud*, through her marriage to footballer Ashley Cole, and through her work as a judge on *The X Factor*, among other things. This paper seeks to analyse the effect this has had on her accent.

Four recordings between 2002 and the present day are analysed to discuss changes to her original Tyneside English (TE) accent, specifically through the changing phonetics of the FACE and the GOAT vowels. These changes are discussed in terms of both the TE speech community and Cheryl’s personal experiences. The two vowels have traditional diphthongs in TE which are different from the diphthongs in Received Pronunciation (RP). However, these vowels have been found to be undergoing dialect levelling, with many TE speakers producing them as the monophthongs found in the rest of the North (Watt 2000, 2002). The paper therefore investigates whether Cheryl follows the pattern of other TE speakers or moves towards RP.

The recordings used are taken from online videos of interviews. The first time point studied is 2002, when Cheryl first rose to fame through *Popstars: The Rivals*. At this time, her GOAT and FACE vowels are shown to be the Northern monophthongs which have resulted from dialect levelling in TE. The intermediate time points studied are 2006 and 2011. In 2006, Cheryl was engaged to Ashley Cole and had been living and working in the south of England for 4 years. Both vowels move closer to RP in position but remain monophthongal. The 2011 recording is an interview in the U.S., during Cheryl’s brief career on *The X Factor (U.S.)*. The data for this time point are particularly interesting as the position of the vowels varies more, and the average position of both vowels does not fit the pattern of change, indicating style-shifting. The 2014 recording was the most recent interview of substantial length which could be found at the time of data collection. The analysis shows that Cheryl’s GOAT vowel is significantly closer to RP than it was in 2002, despite remaining a monophthong, while her FACE vowel appears to have become a diphthong as in RP.

The results show that Cheryl does undergo lifespan change in these two vowels, being closer to RP at the time of writing than in 2002. However, the two intermediate time points studied show that these vowels do not change in parallel, as predicted by Watt (2000). The intermediate time points, in particular the 2011 data, give support to the conclusions of Rickford and Price (2013) and Bowie (2009) that in order to fully understand data on lifespan change, intermediate time points and factors other than age must be taken into account.

# “Whey Aye my Good Sir”: Has Cheryl Fernandez-Versini’s Accent Moved from Tyneside English to RP?

Victoria Wallace

## 1 Introduction

This paper presents an analysis of change across the lifespan of one individual, Cheryl Fernandez-Versini (henceforth “Cheryl”). It primarily seeks to establish whether (and in what ways) her use of a select set of variables has changed between her rise to fame in 2002 and the time of writing in 2015. The identified changes are discussed with reference to existing literature on Tyneside English (TE), commonly known as Geordie, and external factors in Cheryl’s life. These factors are included because, as Bowie (2009) suggests, it is not enough to simply look at age as a factor in lifespan change. Other factors, including identity, are important in understanding change.

As a principle of dialect acquisition, Chambers (1992) states that phonemic and phonological variables take longer to acquire than lexical ones. Therefore, any changes found in Cheryl’s phonetics are stronger evidence of overall change, as we can tentatively assume that they indicate more advanced change than lexical variables. Another of Chambers’ principles is that phonological changes in dialect acquisition begin as phonetic variation. This principle does not necessarily hold for the data here, which do not show a linear change year on year. The implications of this are discussed in the conclusion.

### 1.2 Tyneside English GOAT and FACE

The variables analysed in this study are systemic and currently undergoing dialect levelling in TE (Watt 2000, 2002). Local variants (those only associated with TE) are being pushed out by supralocal ones (those associated with the more general variety of Northern British English [NBE]). Note that, as in Wells (1982), NBE features are defined as those found in Greater Manchester, West Yorkshire, and South Yorkshire. This pattern of dialect levelling also occurs in other English dialects (Watt 2000).

The variables are the vowels in the GOAT and the FACE lexical sets (Wells 1982). Watt (2000) identified four variants of GOAT and three variants of FACE in use in TE (Table 1).<sup>1</sup> Type I variants are supralocal and now the most common form in TE (Allen and Watt 1990, Watt 2002); the second monophthongal variant listed for GOAT represents a fronted version of [o:] found in North Eastern dialects. Type II and III variants are local, i.e., more specifically associated with TE.

**Table 1:** Variants FACE and GOAT in Tyneside English (Watt 2000:74) and RP

	FACE	GOAT
Type I: monophthongs	[e:]	[o:], [ø:]
Type II: centring diphthongs	[iə]	[ʊə]
Type III: closing diphthongs	[eɪ]	[oʊ]
RP	[eɪ]	[əʊ]

Paul Foulkes (cited in Allen and Watt 1990:269) states that the Tyneside monophthongal [e:] is often produced farther front than even the vowel of the FLEECE lexical set, /i/, particularly by women. Therefore, rather than referring to the vowels [o:] and [e:] as corresponding exactly to IPA symbols, they are here defined as those “clearly monophthongal vowels produced close to the front and back peripheries of the vowel space” (Watt 2000:74).

Watt (2000:73) suggests that these two vowels are parallel to one another because they are “mirror images” of one another, not just in TE (where the variants pair up neatly, as in Table 1), but in other English accents as well. This symmetry means that the lexical sets should follow the same patterns when undergoing change. As will be shown in the results, Cheryl proves to be an exception to this case, with the vowels of the two lexical sets changing independently of one another.

<sup>1</sup> One variant of the GOAT vowel is [a:], but it is not discussed due to its lexical restriction to words such as *know* [na:] and the data providing no evidence of Cheryl using this variant.

### 1.3 Speaker

Before the time period studied, Cheryl was a member of the working class and lived in Newcastle upon Tyne. Recordings of her speech were taken from online videos of interviews and television appearances from 4 different years: 2002, 2006, 2011, and 2014 (see Appendix), totalling approximately 26 mins.

#### 1.3.1 Cheryl in 2002 (19 years old)

In 2002, Cheryl auditioned for, and subsequently won, a TV talent contest called *Popstars: The Rivals*, then becoming one fifth of the pop group *Girls Aloud*. Data from this year were derived from clips of the show and an interview with newly formed *Girls Aloud*. They are taken to represent Cheryl's speech before she had moved away from Newcastle and became very much in the public eye. It is possible that her speech had already changed due to being on television and living briefly in the south of England with people from across the country (Sanderson 2008). However, this is the earliest point at which a large enough sample of her speech can be easily found.

#### 1.3.2 Cheryl in 2006 (23 years old)

In 2006, Cheryl had experienced much more prolonged contact with speakers of other dialects and was engaged to London-born Ashley Cole, having been in a relationship since 2004 (Cole 2012). This cross-dialectal relationship formed a small community of practice, which may have influenced her speech (Stanford 2010).

While the 2002 recordings show Cheryl before she was accustomed to public interviews, the 2006 recordings (from various television appearances) show her with more performance experience. Therefore, she may have adapted her speech based on this experience.

#### 1.3.3 Cheryl in 2011 (27 years old)

By 2011, Cheryl had launched her own career as a solo artist and television personality on the talent show *The X Factor* (Cole 2010) and had divorced Ashley Cole (Cole 2012). A recording from her time in the U.S. (judging *The X Factor [U.S.]*) has been chosen to sample how she spoke when she was there. The interviewers and audience are American in this recording, so potential audience design effects (Bell 1984) are taken into account when analysing the data, particularly as this may have motivated style-shifting.

When Cheryl was announced as a judge on *American X Factor*, there was speculation about how well American audiences would understand her (e.g., Kelly 2011).<sup>2</sup> The potential impact of this speculation is discussed alongside the data.

#### 1.3.4 Cheryl in 2014 (31 years old)

The 2014 recording is a UK interview from around the time Cheryl married French-born Jean-Bernard Fernandez-Versini. However, as they had been in a relationship for less than 4 months, this is unlikely to have caused changes to the extent found in Stanford (2010), who looked at couples who had been together for a longer period of time.

## 2 Methods

After extracting audio from the videos using Audacity (n.d.) and transcribing the speech in ELAN (n.d.), I used FAVE-align (Rosenfelder et al. 2011), Praat (Boersma and Weenink 2014), and FAVE-extract (Rosenfelder et al. 2011) to obtain various F1 and F2 measurements of each vowel token. As FAVE-align's segment identification model is based on American English phonemes, I checked through all of the data to make sure the British transcriptions were used instead. For example, the word *can't* was transcribed /kænt/, whereas in British English it would be /kɑ:nt/, so I changed these tokens to the same vowel code as other tokens of the /ɑ:/ vowel. I conducted a Grubbs' test on GraphPad (n.d.) to check for outliers in the data, but found none.

I then undertook statistical tests on each of the lexical sets to see how monophthongal or diphthongal the realisations were. Specifically, I ran t-tests on the tokens from each of the 4 years, testing for significant differences between the average position of the vowel 20% and 80% through its duration (Wright and Nichols 2009). Variation in F1 was tested separately from that of F2.

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<sup>2</sup>This article speculates that Cheryl received instruction on her speech. However, her autobiography states that producers were happy with her accent before she was hired, so it is unlikely that this is true.

After establishing whether the position of the vowel was produced more often as a monophthong or a diphthong in each year, I ran mixed model regression tests to see if there were significant changes in the position of the vowel across time. This was achieved by inputting the data into R (R Project n.d.), using the Rbrul script (Johnson 2014), and testing whether the predictor (independent variable) “year” had any significant effect on the response (dependent variable) F1 or F2. F1 was used as an indicator of vowel height, and F2 of backness. The average position of the vowel at each time point was then plotted to show how it compared to the rest of the vowel space. Minimum and maximum F1 and F2 values for the vowel plot were set to multiples of 100.

The tokens were also coded according to the following word classes: noun, verb, adjective, adverb, and “other”. Postvocalic context was also recorded, as this had been found to have a significant effect on both lexical sets by Watt (2000). I used the same categories as Watt: vowel final, nasal, voiceless plosive/affricate, voiced plosive/affricate, voiceless fricative, voiced fricative, and lateral; however I added the category of “vowel” for words such as *going*, where the token is followed by another vowel. With the data having already been coded for stress by FAVE, this gave me three language-internal factors to test: word class, postvocalic content, and stress.

The lexical sets were tested again to see if these language-internal variables had any effect on their monophthongal/diphthongal quality or their position. If language-internal factors did play a role, they were then tested for any interaction with year to see if Cheryl underwent any changes in how the language-internal factors affect the lexical sets, as this too would indicate lifespan change.

### 3 Results

#### 3.1 Results for GOAT

##### 3.1.1 Monophthong/Diphthong

The vowel in Cheryl’s GOAT lexical set was found to be monophthongal throughout all four time periods studied (see Tables 2 and 3). Additionally, a multivariate analysis showed that none of the language-internal factors were significant predictors of the vowel’s status as a monophthong or a diphthong. Therefore, we can examine differences in the vowel’s mean position, treating it consistently as a monophthong.

**Table 2:** Differences in mean F1 of GOAT and *p*-values based on a t-test

Year	Mean F1 at 20%	Mean F1 at 80%	Change in F1	Significance of the change in mean from 20% to 80%	Vowel type
2014	618	595	-23	$p = 0.455$	Monophthong
2011	627	608	-19	$p = 0.610$	Monophthong
2006	573	565	-9	$p = 0.776$	Monophthong
2002	543	573	30	$p = 0.323$	Monophthong

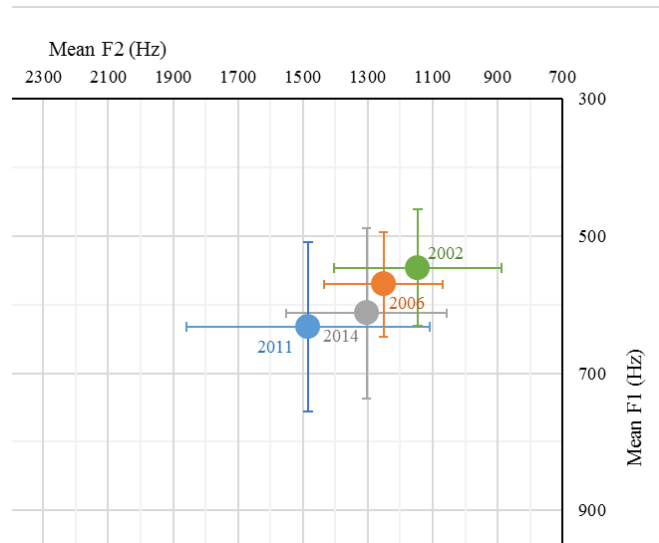
**Table 3:** Differences in mean F2 of GOAT and *p*-values based on a t-test

Year	Mean F2 at 20%	Mean F2 at 80%	Change in F2	Significance of the change in mean from 20% to 80%	Vowel type
2014	1257	1170	-87	$p = 0.791$	Monophthong
2011	1426	1316	-110	$p = 0.319$	Monophthong
2006	1212	1118	-94	$p = 0.132$	Monophthong
2002	1127	1046	-81	$p = 0.363$	Monophthong

##### 3.1.2 Vowel Quality

Figure 1 shows the changes in mean F1 and F2 for GOAT across the four time periods (with numeric data provided in Table 4). Between 2002 and 2014, changes in both of these dimensions were found to be significant ( $p < 0.001$

for both formants). From 2002 to 2006, both formants increase slightly, before increasing rapidly in 2011. They then both decrease slightly from 2011 to 2014.



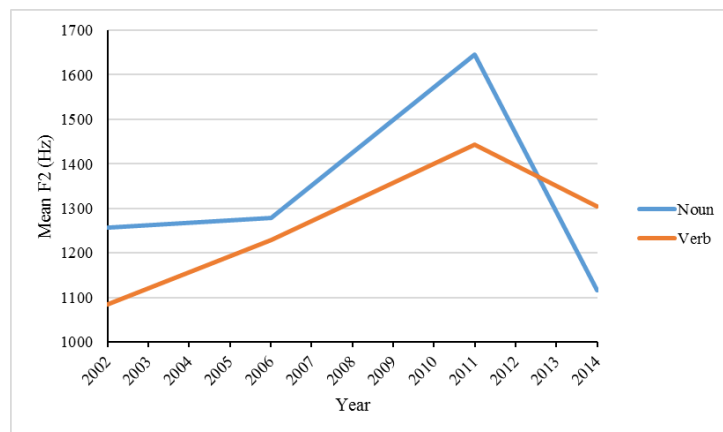
**Figure 1:** Mean position and standard deviation for GOAT over the four time points studied.

**Table 4:** Numeric data for Figure 1

	2002 ( <i>N</i> = 16)	2006 ( <i>N</i> = 20)	2011 ( <i>N</i> = 18)	2014 ( <i>N</i> = 79)				
	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.	Mean	St Dev.
F1	546	85	570	76	633	124	613	79
F2	1146	258	1252	184	1484	375	1304	247

In 2002, Cheryl’s GOAT vowel was clearly [o:], the supralocal variant which is now the most common variant in TE, particularly for women (Watt 2000). Therefore, as Cheryl’s accent had already undergone the dialect levelling known to affect these vowels in TE, any subsequent changes must be due to influences outside of TE. Overall, and over time, we see that her vowel for the GOAT lexical set was produced with a higher F1 and F2, bringing it closer to the nucleus of the RP diphthong [əʊ], despite remaining monophthongal.

A multivariate analysis shows that word class and postvocalic context have a significant effect on the F2 of the vowel in the GOAT lexical set in these data ( $p < 0.05$  and  $p < 0.001$ , respectively). The effect of postvocalic context remains constant across the times studied, but word class shows an interaction with the year of recording (Figure 2 and Table 5). (Please note that adjectives and adverbs were excluded due to low token counts.)



**Figure 2:** Changes in mean F2 for GOAT for different word classes over time

**Table 5:** Numeric data for Figure 2

		Tokens	Mean F2
2002	Noun	4	1257
	Verb	6	1084
2006	Noun	2	1280
	Verb	10	1230
2011	Noun	7	1646
	Verb	7	1443
2014	Noun	7	1117
	Verb	35	1305

Throughout the three earlier time points, the vowel in GOAT had a higher F2 in nouns than in verbs (although this difference was considerably smaller in 2006). However, in 2014, this trend was reversed and the vowel had a higher mean F2 in verbs than nouns. A difference over time in how language-internal factors affect vowel position is also a form of lifespan change, although in this case the token counts are quite small.

### 3.2 Results for FACE

#### 3.2.1 Monophthong/diphthong

The vowel from the FACE lexical set showed no significant diphthongisation in Cheryl's speech in 2002, 2006, or 2011; but in 2014, the mean F1 was found to be significantly smaller at 80% than at 20% ( $p < 0.01$ ) (Table 6). This suggests that the 2014 vowel was more diphthongal, rising (though not fronting) at the off-glide. With respect to linguistic constraints, vowels of FACE with primary stress were more likely to be monophthongal for F2 ( $p < 0.02$ ), but this effect did not change across the 4 years (Table 7). No other internal factors tested were shown to have any significant effect, either overall or for each year.

**Table 6:** Differences in mean F1 of FACE and  $p$ -values based on a t-test

Year	Mean F1 at 20%	Mean F1 at 80%	Change in F1	Significance of the change in mean from 20% to 80%	Vowel type
2014	538	494	-44	$p < 0.01$	Diphthong
2011	580	592	11	$p = 0.836$	Monophthong
2006	606	533	-73	$p = 0.161$	Monophthong
2002	506	502	-4	$p = 0.816$	Monophthong

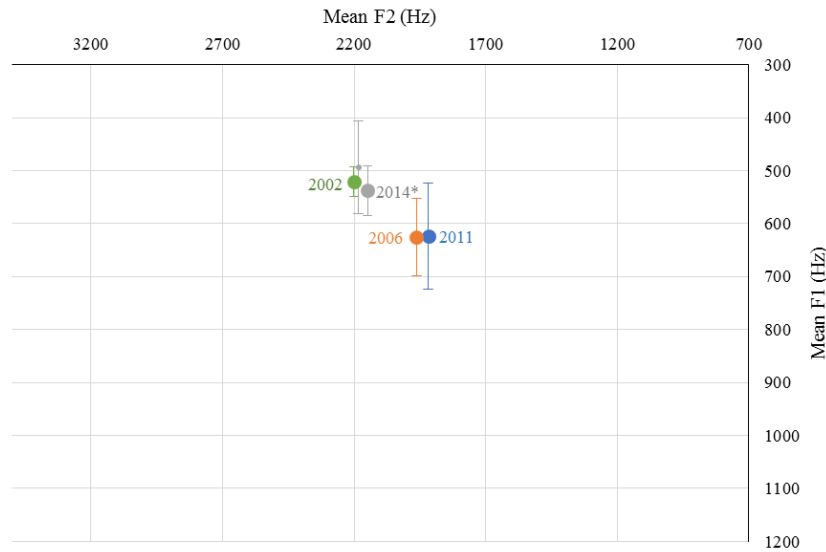
**Table 7:** Differences in mean F2 of FACE and  $p$ -values based on a t-test

Year	Mean F2 at 20%	Mean F2 at 80%	Change in F2	Significance of the change in mean from 20% to 80%	Vowel type
2014	2149	2184	34	$p = 0.604$	Monophthong
2011	1858	1777	-81	$p = 0.766$	Monophthong
2006	1896	2019	123	$p = 0.598$	Monophthong
2002	2193	2196	3	$p = 0.977$	Monophthong

#### 3.2.2 Vowel Quality

A multivariate analysis found no effect of any internal variables on the position of the FACE vowel, and only F1 showed a significant change across the years ( $p < 0.001$ ; Figure 3 and Table 8). The F2 data varied greatly with

respect to year, particularly in the intermediate years. Since there are no language-internal factors at play here, I would suggest that the distribution of more fronted or backed FACE vowels is unpredictable. This could have been the result of a conscious decision to change the vowel, which Cheryl then fails to apply all of the time. However, based on these data, this can only be a conjecture.



\* As the face vowel was a diphthong in 2014, the larger circle represents the average position of the nucleus and the smaller represents the average position of the glide ( $p < 0.001$  for overall change in F1, overall change in F2 insignificant).

**Figure 3:** Mean position and standard deviation for FACE by year.

**Table 8:** Numeric data for Figure 3

	2002 (N = 8)	2006 (N = 6)	2011 (N = 10)	2014 (N = 34)						
				Nucleus		Glide				
	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.
F1	521	27	626	73	624	100	538	46	494	87
F2	2201	135	1963	397	1918	589	2149	284	2184	327

In 2002, Cheryl's monophthong [e:] (the product of dialect levelling in TE [Watt 2000, 2002]) shows very little variation with respect to F1. In 2006, the vowel is significantly lower and remains low in 2011, before rising back up again in 2014. This is an interestingly non-linear pattern of change. It is also similar to GOAT in the sense that the 2014 variant is closer to the 2002 variant than that of 2011.

## 4 Discussion

Cheryl's vowel in the GOAT lexical set in 2014 has a higher F1 and F2 than in previous years. Although monophthongal, its quality is closer to the nucleus of the RP diphthong [əʊ]. Initially, one could hypothesise that Cheryl "picked up" this change moving to London and coming into contact with different dialects. However, this is not suggested by the fact of the vowel remaining a monophthong, which is a feature of NBE (Wells 1982). If she were acquiring a Southern British English variety we would observe diphthongisation rather than just a change in position.

The change might also be said to indicate disassociation with her home region (whether consciously or unconsciously). A conscious shift is unlikely as it would jeopardise her image as a celebrity who stays close to her roots:

On the face of it I was living two separate lives, but I never felt that on the inside. I was always just me, the same Cheryl I'd always been ... being a Geordie is so much part of my character and is so special to me. (Cole 2012:102)



Therefore, I argue that the most likely explanation as to why the position of Cheryl's GOAT vowel changed is that she needed to avoid being misunderstood. Both her personal and professional lives had changed to involve more contact with speakers of other varieties of English, and there was correspondingly a greater need to be understood by them. Speakers of other dialects can (perceptually) confuse the monophthong [ɔ:] with the vowel in the THOUGHT lexical set, pronounced [ɔ:] in RP. For example, non-Northern listeners may have difficulty differentiating Northern productions of minimal pairs such as *bowl* and *ball*. For Northerners, these are /bo:l/ and /bɔ:l/, respectively, and so not homophonous; but for non-Northern listeners without the [o:] variant in their own repertoire, both sound like /bɔ:l/. Cheryl's fronting of her vowel in GOAT makes the vowel more distinct from her vowel in THOUGHT, therefore enhancing her intelligibility. This fronter articulation makes the vowel more similar to the nucleus of RP [əʊ], which might be her specific target to increase clarity. However, Cheryl does not fully acquire the RP variant, as her vowel is still monophthongal.

It is interesting that the position of her GOAT mean in 2006 is closer to the 2014 mean than to the 2002 mean, despite representing a time gap that is twice as long. This suggests that Cheryl's pronunciation shift was most dramatic in the first 4 years of her fame. This was when most of her social mobility occurred: being in the public eye, moving to the south, and having more contact with non-TE speakers, for example. The position of her GOAT mean in 2011 is also interesting, as it is the lowest and frontest production, but not an indicator of monotonic change, since it is more extreme than her mean for 2014. The year 2011 is also outside of the general trend for the change in the FACE vowel, a point to which we will return below.

The lowering of the vowel in the FACE lexical set that can be seen in 2006 and 2011 is most likely due to contact with speakers from London and the surrounding area, who produce this diphthong with a low nucleus [æɪ]. This is unlikely to be deliberate imitation, as Cheryl's vowel remains monophthongal throughout these time periods and does not take on the diphthongal quality of the London variant. The large error bars, particularly in 2011, show that the height of the vowel in all of the post-2002 time periods is still highly variable.

Overall, the data show that, in 2002, Cheryl produced the vowels in FACE and GOAT exclusively as Watt's (2000) Type I monophthongs [e:] and [ɔ:], respectively. This appears to be the result of a more general trend towards dialect levelling in TE. By 2014, Cheryl's vowel in FACE was closer to that of the RP realisation. However, those data show considerable variability (Figure 3). Across all time points, her vowel in GOAT remains a monophthong, but the position of its nucleus is closer to the nucleus of the RP diphthong. This may mean that in the future she will continue to move towards the RP form until she produces the GOAT vowel as [əʊ]; or it may be that, as this new monophthong can no longer be confused with the THOUGHT vowel, she will simply continue to produce it the way she does now.

This points to an interesting difference between the two variables under study. As mentioned above, the monophthongisation of GOAT can cause it to be mistaken for THOUGHT, whereas there is no perceptual confusion for the monophthongisation of FACE. Arguably, the former would be more likely to change than the latter to avoid perceptual confusion. However, what we see is the latter changing more towards RP than the former. Arguably, this can be understood as GOAT monophthongisation representing more of a salient feature of (contemporary) TE than FACE monophthongisation. Under this interpretation, diphthongisation of FACE poses less of a risk to Cheryl's "proud Geordie" image than does diphthongisation of GOAT, and so while she has moved towards a slightly more diphthongal FACE vowel over time, she only changes GOAT with respect to the position of the vowel nucleus. The version of the vowel in the GOAT lexical set that we see in 2014 is arguably a compromise between being understood and maintaining her identity.

The intermediate time points shed further light on the changes that occurred in both variables. The 2006 time point shows us that the changes in her vowel in GOAT occurred most rapidly within Cheryl's first 4 years as a celebrity (by 2006, her GOAT was almost the same as it is today), and that her vowel in FACE was influenced by the speech of those around her, most notably her husband and people who lived near her. The 2011 time point is particularly interesting, as the data for both vowels in this year are highly variable and more extreme than in the other years sampled. In 2011, Cheryl was working hard to advance her individual career—more so than in the other years on record (Cole 2009, 2012, Sanderson 2008). She may have been using language as a way to fit in with the group she aspired to be part of. Her 2011 vowel in GOAT had the highest F1 and F2 values (i.e., most similar to RP) and her vowel in FACE was low (i.e., closer to the London accent). One might speculate that lack of self-confidence (Cole 2012) may have also made her particularly likely to approximate the accents of others, but the role of confidence in accommodation has no known empirical basis.

The 2011 recording is exceptional for other reasons as well. In the recordings from 2002, 2006, and 2014, it appears that Cheryl is talking solely to British (or Irish) interlocutors. The footage was also clearly intended for the British public. However, in 2011, both her interlocutors and the intended audience were American. Therefore, Cheryl may more intentionally be making her accent "less Geordie" in order to be better understood. This might at least partially account for the high levels of variance in these data, as well as the fact that the 2011 means are the farthest from the 2002 means for both vowels (F1 for FACE, F1 and F2 for GOAT). Whether these changes were conscious or not, they could be explained by simple behaviourist principles in terms of her reacting to negative

feedback. This negative reinforcement could stem from people misunderstanding her speech, treating her differently because of her speech, or explicitly criticising her for it.

Cheryl's style shift in 2011 is interesting when compared to "Foxy", one of the two African American subjects in Rickford and Price's (2013) longitudinal study of African American English (AAE). Foxy is described as a "stylistic chameleon" (Rickford and Price 2013:143), able to increase or decrease her usage of multiple features associated with AAE in parallel with one another. Cheryl does not appear to be a "chameleon" in quite the same way, as the two variables do not vary in the same way with one another.

One of Chambers's (1992) principles is that dialect acquirers learn lexical variables faster than phonetic ones. Future study might investigate changes in Cheryl's lexis, either over time towards UK Standard English or in 2011 towards American English. Chambers's (1992:693) principle of second dialect acquisition, whereby "phonological innovations are actuated as pronunciation variants", is complicated by the data from the FACE lexical set. According to this principle, FACE is expected to diphthongise gradually. The intermediate time points clearly show that this is not the case: not only is the change not gradual over time, but rather than becoming more diphthongal, the vowels change position by lowering and backing. This is further evidence of the importance of analysing intermediate time points.

## 5 Conclusions

This analysis considered Cheryl Fernandez-Versini's production of two vowels over four time points along her career as a pop star. Because of her rise in fame and increased exposure to RP, Southern British Englishes, and American English, one might expect her pronunciation of the vowels in the FACE and GOAT lexical sets to show both an increase in diphthongisation as well as a change in vowel quality and to change in the same manner. Overall, the two vowels do not parallel change. While the overall change in the FACE vowel is from a Northern variant to a more RP-like variant, GOAT undergoes vowel quality but not diphthongisation. While both vowels shift to more extreme positions in 2011 and retreat in 2014, variation in FACE is only significant along F1, whereas GOAT both fronts and lowers. This evidence goes against the idea of "symmetry" for these two vowels (Watt 2000) and favours the hypothesis of Section 4 that the vowels change in different ways because GOAT is subject to conflicting constraints such as perceptual confusability with THOUGHT, while FACE is not.

In conclusion, the data show that these vowels have changed since 2002, generally in the direction of RP. This is evidence towards the hypothesis that Cheryl's speech became less "Geordie" in general over this time period. However, these changes have not simply occurred gradually, as she shows influences from London English and evidence of style-shifting during intermediate recordings. It is clear that simply using data from 2002 and 2014 would not have given such a detailed picture of the changes Cheryl went through. This case study therefore supports Rickford and Price's (2013) conclusion that intermediate data points should be used in studies of language change across the lifespan. Additionally, the data at these intermediate points would seem random if only age were taken into account. Therefore, Bowie's (2009) emphasis on taking into account other factors, including identity, is also shown to be relevant.

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## Appendix

### Videos Used to Collect Speaker Data

Many of these videos have been uploaded to YouTube by the general public years after they were recorded. Data for this study were sourced from two additional videos for 2002, which have since been removed from YouTube and are hence not included in the list. At the time of writing, the following videos are still available.

#### 2002

Aloud USA (dot) net. 2007, 10 March. PSTR—Cheryl Tweedy—audition. Accessed 19 December 2014, URL <https://www.youtube.com/watch?v=UpWus7NUeyY>

#### 2006

Where Every Day is Shredder Day! 2009, 8 September. 2006–March: Top of the Pops Reloaded—Know your guest (Cheryl Tweedy). Accessed 19 December 2014, URL [https://www.youtube.com/watch?v=LS\\_ZPWA17ps](https://www.youtube.com/watch?v=LS_ZPWA17ps)

Andrew Farrell. 2011, 26 May. Cheryl Cole slagging off Nicole Scherzinger (2006). Accessed 19 December 2014, URL <https://www.youtube.com/watch?v=4oM8VDYe-gE>

Kanál používateľa TheGirlsAloudLover1. 2011, 3 November. Girls Aloud: Interview (The Fix 2006). Accessed 19 December 2014, URL <http://youtu.be/WRzx61IQyv8?list=UUGFuBLUJt2y66fYGY9bMCfw>

hellu882. 2009, 22 April. Girls Aloud—Tmi— Cheryl Cole—14<sup>th</sup> October 2006. Accessed 19 December 2014, URL <https://www.youtube.com/watch?v=M5D591VKRDw>

#### 2011

MariaTweedy. 2011, 9 May. Cheryl Cole at US X Factor auditions LA interview. Accessed 19 December 2014, URL <http://youtu.be/MTvIcOIPLgI>

#### 2014

Cheryl Daily. 2014, 7 July. Cheryl Cole—Chart Show interview 2014. Accessed 19 December 2014, URL <http://youtu.be/OIZmfFOVt-A>