

Title: **The jet set: Modern RP and the (re)creation of social distinction**

Authors: Sophie Holmes-Elliott  
Queen Mary University of London  
s.holmes-elliott@qmul.ac.uk

Erez Levon  
University of Bern  
erez.levon@unibe.ch

Short Title: RP and the recreation of social distinction

Competing Interests: The authors declare none

## **The jet set: Modern RP and the (re)creation of social distinction**

### **Abstract.**

While the loss of regional distinctiveness across the southeastern UK is well studied and largely undisputed, there is less consensus about class-based divisions. This paper investigates this question through an updated analysis of the variety emblematic of Britain's upper class: Received Pronunciation (RP). While previous studies have suggested levelling in RP to a broader standard southeastern norm, our findings indicate that the most recent advances in the variety show it (re)differentiating itself from other varieties in the region. Investigating both individual vowel movements and broader system-wide properties, we argue that the changes observed in RP today result from speakers adopting a particular articulatory setting (lax voice), which has subsequent ramifications on vowel realisations. We suggest that speakers make strategic use of this articulatory setting as a way of embodying an elite persona in the British context, an interpretation that resonates with the social distributions of similar changes in other varieties.

**Keywords:** RP, British English, articulatory setting, embodiment, distinction

## **The jet set: Modern RP and the (re)creation of social distinction**

### **Introduction**

Received Pronunciation (RP) is one of the most widely recognised, and frequently discussed, varieties of British English. Despite this, there exists relatively little variationist research on language use among RP speakers (Fabricius, 2000, 2002, 2007; Badia Barrera, 2015; Halfacre & Khattab, 2019 are notable exceptions). According to Fabricius (2018), this is due to a conflation between RP as the standard variety of British English – that is, an abstract construct used to organise ideologies of linguistic “correctness” and “prestige” in the UK (Agha, 2003; Fabricius & Mortensen, 2013) – and RP as the habitual variety of a sociologically defined group of speakers (e.g., those who are upper-class and/or privately educated). In this paper, we contribute to the study of RP as it is actually used among young elite speakers in Britain today. Specifically, we focus on the vowel system of *modern RP* and compare realisations of short vowels by upper-class speakers in London with those of their working-class counterparts. We do so in order to identify the role that linguistic variation continues to play in marking social distinction in the UK. This is important because of how discourses of social class in Britain have changed over the past fifteen years. While popular discussions during the final decades of the twentieth century emphasized a supposed fracturing of class hierarchies and the rise of a so-called “meritocracy” (Adonis & Pollard, 1997; Cannadine, 1999; Turner, 2013), recent scholarship has highlighted the persistence of entrenched class divisions and an increased awareness of how these divisions structure contemporary British society (e.g., Williams, 2006; Biressi & Nunn, 2013; Savage et al., 2013; Friedman & Laurison, 2020). We seek to map the effect that such changes have had on language use and to provide an updated picture of elite speech in Britain. Specifically, we explore the ways in which class-linked embodied behaviours may be implicated in current patterns of sound change.

We begin in the next section with a brief overview of developments in RP over the course of the twentieth century, focusing in particular on reports of levelling in RP toward other southeastern

British varieties. We go on to describe how from around 2010, discussions of possible changes in “posh speech” began to appear in British popular media. We take these media discussions as evidence of the renewed salience of linguistic markers of eliteness (see, e.g., Fabricius, 2018). The bulk of our analyses are then devoted to investigating the validity of these media depictions, examining whether speech among young elites in London corresponds to these popular representations. To do so, we analyse the speech of cast members of the reality television show *Made in Chelsea* (which we take as a proxy for modern RP) and compare it to the speech of cast members of the show *The Only Way Is Essex* (which we take as a proxy for the generational descendant of Cockney). We describe how differences in vowel realisations across the two shows are consistent with the speakers adopting distinct articulatory styles, or *embodied settings*. We close by discussing the ramifications of our findings for current understandings of modern RP and for the relationship between language and social distinction more generally.

### **The rise, fall, and rise of Received Pronunciation**

The accent that eventually would come to be named Received Pronunciation (RP) first began to emerge in the eighteenth century as part of a broader movement to standardize English in Britain (Mugglestone, 2007). While ostensibly driven by a desire to create a “neutral” and “non-local” style of speech, i.e., one that would be adopted by people regardless of their region of origin, RP was from its outset explicitly modelled on the accent used by educated, upper-class speakers in and around London. RP has thus always been characterized by a central tension: it is a social and regional accent of a particular population of speakers (upper-class individuals from the southeast) as well as a codified, non-regional standard that serves as an emblem of sociolinguistic prestige (Agha, 2007; Fabricius, 2018). It is not accidental that it was a supralocal accent of educated London English that was chosen to be the supposedly “neutral” standard. The push for standardisation was undergirded by language ideologies that positioned educated London English as the “most correct” accent, due primarily to its association with the “best” London society. While this push to position

RP as a standard emerged in the eighteenth century, there is evidence that it took another hundred years before it was firmly implanted, with its rise supported by the establishment of a network of fee-paying boarding schools (called “public schools”), places where young upper-class men from around the country were sent to study. Indeed, the earliest phonetic descriptions of what would later be labelled RP used the term *Public School Pronunciation* (PSP; Jones, 1909, 1917), identifying it as the speech of “the families of Southern English persons whose men-folk have been educated at the great public boarding-schools” while also conceding that the accent can be found among former boarding-school pupils not from the South of England (see also Collins & Mees, 1999; Jones, 1917, p. viii).

This duality in understandings of RP has been evident since the earliest scholarly descriptions of the accent. Jones (1926) dropped the label PSP from the second edition of his *English Pronouncing Dictionary*, choosing instead to revive Ellis’ (1869) earlier term Received Pronunciation in order to foreground the “received” (i.e., generally accepted) nature of the accent as a model for learners of English. The tradition of treating RP as an idealized model (or construct; Fabricius & Mortensen, 2013) for language learning was sustained by Gimson (1962) in his *Introduction to the Pronunciation of English*, which became the classic reference for the phonetic description of “standard English” (see Roach, 2004 for a summary). This had the effect of conflating three different phenomena under the label RP within the scholarly literature: a norm for language teaching, a Platonic ideal of “correct speech”, and a sociolinguistic variety used by a defined population of speakers (Fabricius, 2018, p. 41; see also Wells, 1994, 1997).

The first detailed discussion of variation in RP appears in Wells (1982), where he makes a distinction between *upper-class RP* (U-RP, a traditional form) *mainstream RP* (the generational descendant of U-RP), and *adoptive RP* (the version spoken by people who did not speak RP growing up). Innovations that Wells (1982) identifies in *mainstream* and *adoptive* RP include the fronting of the vowels in the GOAT and GOOSE lexical sets ([oʊ] to [əʊ] and [u:] to [ɥ:]), respectively), tensing of the unstressed happy vowel ([ɪ] to [i]), lowering of TRAP and KIT, /t/-

glottaling in word-final, pre-consonantal position (e.g., *le*[ʔ] *me* rather than *le*[t] *me*), and the monophthongization of centring diphthongs (e.g., [ɔ:] for [ʊə] in a word like *sure*), among others (Kerswill, 2007). While Wells is somewhat ambivalent about whether these differences are chronological, variationist studies over the ensuing decades have tended to argue for a diachronic explanation, finding evidence that RP was levelling toward a broader, supra-local Southeastern norm (see, for example, Fabricius, 2000; Badia Barrera, 2015 on /t/-glottaling; Fabricius, 2002 on happy tensing; Harrington et al., 2000; Fabricius, 2007 on short front vowel lowering; Hannisdal, 2006 on yod coalescence; Fabricius, 2017 on rhotic quality; and Bauer, 1985; Kerswill, 2001; Jansen & Mompean, 2023 on GOOSE fronting).<sup>1</sup> Moreover, RP was reported as participating in the *anti-clockwise vowel shift*. This shift involves the lowering of KIT, DRESS, and TRAP, the raising of STRUT and LOT, and the fronting of GOOSE and FOOT, has been shown to be underway for a number of decades across the entire southeast region of England, and affects all sociolects along the class-continuum (Trudgill, 1986, 2004; Tollfree, 1999; Torgersen & Kerswill, 2004; Fabricius, 2007, 2019).

The apparent generational levelling in RP coincided with the rise of an identifiable, intermediate form: *Estuary English* (Rosewarne, 1984) and was as a focus of attention in both scholarly and popular conversations. Its emergence was seen by many as symbolizing a broader shift toward a more meritocratic society, one in which social mobility is possible and linguistic differences are no longer a hindrance to social advancement. Considering the simultaneous rise of Estuary English and levelling in RP, many scholars suggested that the changes in RP could be the result of a pressure to avoid the overt upper-class connotations of certain RP features, and instead to adopt a style of speaking that was more in tune with the supposed breakdown of class distinctions in late-twentieth century Britain (Wells, 1994; Harrington et al., 2000; Burridge, 2004; Harrington, 2007; see also Fabricius, 2018; Jansen & Mompean, 2023). In other words, the expansion of the middle-class in the final decade of the twentieth century was seen as one of the drivers of linguistic levelling in RP, presumably brought about by speakers who in previous decades would have used

traditional RP forms shifting to a supra-local, Estuary-like standard instead (Kerswill, 2001; Cole & Strycharczuk, 2023).

Yet since the turn of the twenty-first century, and particularly since the financial crisis of 2008, popular discourse in Britain about class and its relationship to language have changed dramatically. Recent sociological studies detailing the persistence of rigid class hierarchies and the continued relevance of entrenched (hereditary) privilege (e.g., Blanden et al., 2005; Clark, 2014; Wakeling & Savage, 2015; Buscha & Sturgis, 2018; Friedman & Laurison, 2020) have received major press coverage, leading to a renewed attention to class in the public sphere. As Fabricius (2018) notes, this has been accompanied by numerous films and television which satirise specific forms of “elite” practice. Some of these parodies pay particular attention to language, and to a purportedly new “posh” style of speech that has emerged over the past fifteen years. Beginning in 2010, for example, British comedian Matt Lacey posted a series of parodic videos to YouTube entitled “Gap Yah”. The videos depict the adventures of a young upper-class man (“Orlando”) who is travelling around the world during his “gap year” between university and the start of his career. In these videos, “Orlando” uses a very distinctive speech style featuring heavily backed and lowered short front vowels (including his pronunciation of the word “year” as [jɑ:]), accompanied by a lowered and immobile jaw. These lowered vowels were taken up as emblematic of the poshness Lacey was parodying, used, for example, in the title of his follow-up book (*The Gap Yah Plannah* from 2011) and by reporters commenting on his work (described, for example, as “saariously funny” in *The Times* in 2010).

More recently, a review of American actor Kristen Stewart’s performance as the title character in the 2021 Princess Diana biopic *Spencer* described her British accent as “entirely convincing, hitting the exact self-conscious, detached-jaw, pseudo-estuary drawl that posh people have adopted now that they realise how silly Received Pronunciation sounds” (Heritage, 2021). The precise linguistic composition of this drawl is described in more detail in a video posted to Tik Tok in August 2022 by British comedian Russell Kane. In the video, Kane complains about what he

describes as “posh people’s squashed vowels”, comparing, for example, his own (working-class) pronunciation of the British bookstore chain Waterst[au]ne’s to the “posh” pronunciation: Waterst[i]n’s. Kane goes on to comment, “Is there something wrong with your mouth? Is it so posh that it’s become, that it’s got a British osteoporosis of the lip”? Kane’s description of posh oral rigidity (*osteoporosis of the lip*) resonates with the description of Stewart’s “detached jaw” and Lacey’s backed, open vowels.

Similar mediated linguistic manifestations of elite and upper class have been noted and analysed empirically in North America. Pratt and D’Onofrio (2017) present an analysis of parodic performances of elite Californians in the sketch television show *Saturday Night Live*. Their analysis compares the visible articulatory settings and associated acoustic manifestations of the actors’ performances in and out of the Californian characters. They report a visibly backed, open-jawed articulation accompanied by an overall reduction in the actors’ vowel space. Pratt and D’Onofrio argue that the actors strategically deploy an open jaw articulatory setting as a way of enacting and physically embodying a particular type of elite Californian. In an earlier study, Kroch (1996) makes a comparable observation about the speech style of Philadelphia’s historically elite families. The upper-middle class Philadelphians are characterised as exhibiting a “relaxed articulation” that “conveys a strong sense of entitlement”. In his analysis of the speech data, Kroch observes that the “relaxed” speech style correlates with a slower speaking rate (a so-called “drawling quality”) as well as a laryngealised voice quality, known locally as “Main Line Lockjaw”. Kroch further describes how the elite speakers are “phonetically less extreme” in their realisation of ongoing changes in the Philadelphia vowel system. In practice, this translates to less raising and fronting among the elite speakers, with vowels positioned generally backer and lower in the vowel space overall – a pattern that is similar to that noted for elite speakers on the West Coast of the US as well as those in the UK. Taken together, it would appear that there is a shared embodied projection of elite status shared across RP speakers, elite Californians, and upper-middle class Philadelphians via



the use of an articulatory setting that is iconically linked to entitlement and ease (c.f. Levon & Holmes-Elliott, 2024 for a fuller discussion).

As these examples illustrate, both popular discussions and empirical analyses of “posh” speech styles focus on the use of a particular embodied posture (lowered jaw) combined with a specific realisation of vowels (lowered and centralised) as new linguistic emblems of eliteness. The current study investigates the extent to which these metalinguistic comments about RP reflect sociolinguistic reality. It is interesting to note that the features we find in media portrayals can be seen as extensions (or exaggerations) of patterns that were described as incipient changes in the literature on RP in the twentieth century, such as the lowering and backing of TRAP and KIT (e.g., Fabricius, 2007) and the maintenance of an immobile jaw (see Agha, 2003, 2007). In the remainder of this article, we examine whether the linguistic style depicted in the media reflects actual patterns of use among elite speakers. If it does, this would provide evidence for a further stage in the development of (modern) RP, one in which the trend toward supra-local convergence in the 1990s is reversing in favour of a newly distinct elite articulatory style.

## **Data and Methods**

To investigate the speech of contemporary elite speakers as compared to their working-class counterparts, we focus on variation in vowel realisations in two popular British reality television shows:

- *Made in Chelsea* (Chelsea), based in the hyper-affluent district of Chelsea in West London, whose speakers are roughly representative of modern RP (Fabricius, 2018), and
- *The Only Way is Essex* (Essex), based in Essex in the suburban east of London, where people speak a variety that has its roots in the working-class Cockney accent of London’s East End (Fox, 2015; Cole, 2022).

Both Chelsea and Essex are so-called “engineered reality” shows that follow a group of twenty-somethings in their day-to-day lives. While the scenarios on the shows are orchestrated, the interactions between cast members are not scripted, and the cast engage in spontaneous, naturally occurring speech. Together, the shows therefore provide us with a useful and accessible source of data representing two regionally, socially, and linguistically distinct speech communities within the Greater London area, corresponding to contemporary versions of RP (*Made in Chelsea*) and Cockney (*The Only Way is Essex*). We choose to focus on speakers in the London area given prior claims about the potential convergence between RP and other Southeastern varieties (e.g., Kerswill, 2001, 2007) and based on the fact that, historically, RP phonology is based on a Southern British model (Mugglestone, 2007). Thus, while language use in the show may not correspond to a fully unselfconscious “vernacular” style, the shows represent a valuable resource for identifying the linguistic features associated with social class positionings in contemporary Britain.

We extracted 82 useable scenes from the first two series of Chelsea (34 scenes) and Essex (48 scenes) for analysis. Together, the scenes totalled just under 6.5 hours of speech and featured 30 central cast members of both shows: 14 speakers in Chelsea (7 women, 7 men) and 16 speakers in Essex (10 women, 6 men). Scenes were taken from high definition downloaded files of the programmes and were only selected if they did not contain any music or other background noise. All speech was transcribed and then forced-aligned using the FAVE suite (Rosenfelder et al., 2011). FAVE-Extract was used to obtain F1, F2 and F3 measurements at the mid-points of all stressed tokens ( $n = 4265$ ) of 11 Southern British English monophthongs: CAUGHT, COT, DRESS, FLEECE, FOOT, GOOSE, KIT, NURSE, PALM, STRUT and TRAP. Given prior research on GOOSE-fronting in Southern British English (Holmes-Elliott, 2015), the GOOSE class was subdivided into vowels before laterals (GHOUL) and those in other environments (GOOSE). Since we are interested in both the placement of individual vowels and the size and shape of the overall vowel space, we followed the vowel normalization methods described in D’Onofrio, Pratt and Von Hofwegen (2019). Raw F1 and F2 values (in Hz) of all vowels were first converted to a Bark scale (Traunmüller, 1990) and then

normalised using the formant-intrinsic version of the Nearey single-log mean normalisation method (Nearey, 1978) via the vowels package (Kendall & Thomas, 2018) in R (R Core Team, 2020). We opted for the Nearey normalisation method since it allows for more robust comparison of inter-speaker differences in the overall size and shape of the vowel space (Barreda & Nearey, 2018; D’Onofrio et al., 2019; Pratt, 2020) and has been shown to perform as well as other normalisation techniques on British English data (Fabricius et al., 2009).

### **The Vowel System of Modern RP**

We begin by examining the placement and distribution of monophthongs in Chelsea and Essex to obtain a first approximation of the current configuration of the vowel systems of modern RP and Cockney, respectively. These are plotted in Figure 1. Beginning with speakers in Essex (light shading, dashed lines), we see a system that is very similar to the one found for the youngest cohort of speakers in Cole’s (2021) description of contemporary Cockney speech in Essex. The close correspondence in the placement of the vowels between speakers in Essex and the young speakers in Cole (2021) is not surprising given that they are of a similar age and social background (i.e., contemporary Cockney speakers in their 20s) and supports our use of speech in Essex as an approximation of modern-day Cockney.

[FIGURE 1 ABOUT HERE]

FIGURE 1. Monophthongs for speakers in Chelsea (dark shading) and Essex (light shading)

Among Chelsea speakers (dark shading and solid lines), we find a very different pattern. FLEECE anchors the high front of the vowel space, but both KIT and DRESS sit significantly lower than in Essex. DRESS, in particular, is positioned very low in the vowel space, nearly overlapping with the position of TRAP. F1 values for TRAP in Chelsea are similar to those in Essex, though TRAP sits further back along the bottom axis in Chelsea. When compared to Essex, NURSE, STRUT, and PALM in Chelsea all occupy a central position, with NURSE lowering, STRUT raising, and PALM

raising and fronting to converge in a similar low central area of the vowel space. This converged NURSE-STRUT-PALM space functions as the bottom anchor of the back diagonal, and is clearly distinguished from (non-merged) COT and CAUGHT, which themselves are raised and backed in Chelsea as compared to Essex. GOOSE, is more fronted in Chelsea than in Essex, nearly approaching the position of FLEECE.

Regression modelling confirms the patterns visible in Figure 1. Models testing the relative position of individual vowels in relation to FLEECE across Chelsea and Essex demonstrate that DRESS and NURSE are both lower (higher normalised F1), STRUT and PALM are both higher (lower normalised F1), DRESS, TRAP, NURSE, and COT are all backer (lower normalised F2) and FOOT is fronter (higher normalised F2) in Chelsea than in Essex (see Appendix for model details and results of by-vowel pairwise comparisons). The collective effect of these individual vowel differences is a general compression in the lower half of the Chelsea vowel space. Indeed, calculations of the area of the polygon connecting DRESS, TRAP, STRUT, PALM, and COT in Chelsea versus Essex (using the `densityarea` package in R, Fruehwald, 2023) show that the area of the lower half of the Chelsea vowel space is 0.157 (in Neary-normalized values) while the lower half of the Essex vowel space has an area of 0.169. Vowel space area calculations thus again confirm the visual impressions from Figure 1.

In order to obtain a better understanding of these patterns, we compare the vowel realizations in Chelsea and Essex to those of RP and Cockney speakers in earlier generations. Figures 2a-c present the average positions of the short vowels in Chelsea and Essex in relation to those found for a speaker of “traditional” RP born in 1909 (taken from Deterding, 1997), a speaker of Cockney born in 1950 (taken from Mott, 2012), and a speaker of “modern” RP born in 1980 (taken from Fabricius, 2007). The plots were generated by taking the non-normalized average F1 and F2 values reported in Fabricius (2007), for *traditional RP* and *modern RP*, in Mott (2012), for *traditional Cockney*, and in our current dataset, for *Chelsea* and *Essex*, and normalizing them using

the vowel-extrinsic and formant-intrinsic *S*-centroid normalization method introduced by Watt and Fabricius (2002).

This method involves taking average non-normalized F1 and F2 values for the high-front corner of the vowel space (normally FLEECE), the bottom anchor (either STRUT or TRAP depending on the speaker/variety), and a theoretical high-back corner, defined as having the same F1 and F2 values as the F1 of the high-front corner (i.e., FLEECE). These three points are then used to calculate the “centre of gravity” (or *S*-centroid). Individual vowel classes can then be plotted as a horizontal (F2) and vertical (F1) ratio from this central value.

[FIGURE 2 ABOUT HERE]

FIGURE 2. a) Short vowels in traditional RP (black) and Cockney (dark grey). b) Short vowels in traditional RP (black), modern RP (light grey), and Chelsea (white) c) Short vowels in Chelsea (white) and Essex (grey).

The *S*-centroid method is not intended as a model of psychoacoustic reality or as a means for examining the precise placement of individual vowels. Instead, the method allows us to plot and visually compare the systemic configuration of disparate datasets without necessarily having access to all individual tokens in those datasets. To generate Figures 2a-c, average F1 and F2 values for each dataset across the three corners of the vowel space were calculated, then averaged to calculate the centroid. Average F1 and F2 values for each vowel class are then divided by the respective centroid values to generate *S*-centroid ratios (see Appendix for full calculations). Plotting these ratios in Figures 2a-c provides a heuristic to visually contrast the systems of Chelsea and Essex with those of earlier versions of RP and Cockney.

Figure 2a offers a direct comparison between the short vowels of traditional RP (corresponding to Wells’, 1982 *U*-RP; black boxes and solid lines) versus Cockney (grey boxes, dot-dash lines), using the data from Deterding (1997) and Mott (2012), both based on word-list data. In Figure 2a, the classic distinction between the two varieties is evident: DRESS and TRAP are

positioned much higher along the front diagonal in RP than in Cockney, while RP COT and FOOT lower and more central.

Figure 2b compares the short vowel systems of three generations of RP: traditional RP (black boxes, solid lines), modern RP (light grey boxes, dot-dash lines, with data taken from Fabricius', 2007 interview corpus) , and our Chelsea data (white boxes, dotted lines). The contrast between traditional RP and modern RP in Figure 2b illustrates the substantial changes in RP over the course of the twentieth century. DRESS is substantially lower, approximating the position in Cockney (cf. 2a). Similarly, TRAP is low, while STRUT, COT, and FOOT are all raised. Fabricius (2019), among others, have labelled this change in RP the *anti-clockwise checked vowel shift* (Hawkins & Midgley, 2005; see also Trudgill, 1986, 2004; Wikström, 2013). According to Fabricius, this shift was presumably initiated by a lowering and backing of TRAP, which then dragged DRESS into a lower position and caused the upward raising and inward rotation of STRUT, COT, and FOOT. The shift is schematically represented in Figure 3. For our present purposes, it is important to note that these changes – particularly along the front diagonal – had the effect of bringing modern RP vowels closer to their Cockney counterparts. In this regard, changes in the short vowels illustrate the kind of supra-local levelling that took place in RP in the second half of the twentieth century.

[FIGURE 3 ABOUT HERE]

FIGURE 3. The anti-clockwise checked vowel shift (adapted from Fabricius 2019)

On comparing the system of modern RP to our Chelsea speakers, we find similar positions of the vowels. With the possible exception of KIT, we see no evidence for any further anti-clockwise rotation in the system. Instead, the most striking difference is a shrinking in the vowel space with TRAP raising, FOOT lowering, and DRESS, STRUT, and COT all centralising. It is important to note here that a proportion of this difference in vowel space must be attributable to the particular speech

modes used in the recordings from each dataset. Deterding's (1997) data is based on word list, Fabricius' (2007) data on sociolinguistic interviews, and our Chelsea data on spontaneous speech. The phonetic consequences of speech style are well documented. Styles that are more careful tend towards hyperarticulation; targets become more peripheral and the effect manifests acoustically in an enlarged vowel space (Lindblom, 1990; Moon & Lindblom, 1994). It is therefore safe to assume that a portion of the observed difference between modern RP and Chelsea is driven by differences in types of speech analysed. However, when we compare Chelsea to Essex (in Figure 2c), where both datasets derive from spontaneous speech, we find that the vowel space in Chelsea is significantly smaller than in Essex. It is this difference which leads us to argue that the effects observed in Chelsea are about more than just mode of speech. We interpret this difference as evidence of a *sociolinguistic* phenomenon, whereby Chelsea speakers are contracting their vowel spaces – in relation both to their generational predecessors who speak modern RP, and to their contemporaries in Essex.

Putting the three panels of Figure 2 together, we can see that the two fairly distinct vowel systems in RP and Cockney (Figure 2a) became more similar by the final decades of the twentieth century. The levelling of the difference between the systems appears to have been driven by an anti-clockwise shift in the short vowels of RP, resulting in modern RP monophthongs closely approximating the position of their Cockney counterparts (Figure 2b). Following this shift, there is no evidence of further anti-clockwise rotation. Instead, we find a general shrinking of the vowel space, such that the short vowels in Chelsea are all more centralised than in the modern RP speech described by Fabricius (2007) (Figure 2b), though we acknowledge the potential the different speech modes across the datasets has to exaggerate this effect. A comparison with the position of the vowels in Essex (Figure 2c), however, clarifies things, and shows that Chelsea short vowels have not moved away from their levelled Southeastern positions. Instead, the entire system is more centralized and compressed in Chelsea than in Essex, supporting the idea that a socially relevant

change has taken place among Chelsea speakers. In the next section, we consider how best to account for the patterns we find in RP today.

### **Vowel Centralisation as Articulatory Setting**

The overall shrinking of the vowel space among Chelsea speakers is reminiscent of a particular articulatory setting described by Laver (1980, p. 49), “in which the centre of the mass of the tongue remains more or less in neutral position, and the segmental articulations tend not to depart radially very far from the centre of the articulatory space.” Laver terms this type of articulation *lax voice*, or a style of speaking associated with “lower subglottal air pressure; a slightly lowered larynx; an unconstricted pharynx ... inhibited, minimized radial movements of the relaxed, relatively flat-surfaced tongue in segmental articulation; minimal activity of the lips; and a relatively immobile jaw” (1980, p. 155). Laver goes on to state, following Honikman (1964), that lax voice is typical of Received Pronunciation in British English. The close correspondence between Laver’s description of lax voice and the patterns found in Chelsea, combined with Honikman’s observation about the prevalence of lax voice in RP, lead us to wonder whether articulatory setting, and specifically the use of lax voice, can account for the differences we observe between Chelsea and Essex.

In the absence of physical articulatory measurements (e.g., electromagnetic articulography), we use two acoustic diagnostics to determine whether the different vowel space configurations in Chelsea versus Essex could be linked to a difference in articulatory setting. Prior research indicates that changes in articulatory setting affect vowel classes differently (Laver, 1980; Nolan, 1983). We therefore consider whether the differences observed across vowel classes are consistent with the adoption of a lax voice setting in Chelsea (and its absence in Essex). The first diagnostic involves inspecting the position of the high-front, high-back, and low vowels when they are plotted using a modified version of the vowel-intrinsic Bark Difference method (Thomas, 2011; Kendall & Thomas, 2018). The results of this are presented in Figure 4, which plots the average location of the 11 monophthongs split by show (Chelsea in black and Essex in grey). Triangles surround Nolan’s



(1983) three main vowels classes: high-front vowels (FLEECE, KIT, and DRESS; solid line), high-back vowels (GOOSE/GHOUL, FOOT, and CAUGHT; dashed line) and low vowels (TRAP, NURSE, STRUT, COT, PALM; dotted line).

[FIGURE 4 ABOUT HERE]

FIGURE 4. Bark Difference plot of mean monophthong values in Chelsea and Essex. Triangles indicate high-front (solid), high-back (dashed) and low (dotted) vowel classes.

According to Nolan (1983), the acoustic consequences of lax voice (and its accompanying lowered larynx and unconstricted pharynx) would translate in Figure 4 to an apparent lowering of high-front vowels, minimal change among high-back vowels and raising among low vowels (see also Thomas, 2011). In Figure 4, we see that of the three high-front vowels (solid triangle), KIT and DRESS are indeed substantially lowered in Chelsea (black labels) as compared to Essex (grey labels). Within the high-back area (dashed triangle), excluding GOOSE and FOOT, we do not find a consistent pattern among the remaining vowels in this class, a finding that chimes with Nolan's (1983) prediction of minimal change in the high-back area. Among the low vowels (dotted triangle), we have a somewhat more consistent pattern, with substantial raising of STRUT, PALM and COT in Chelsea as compared to Essex, though we also find backing and slight lowering of NURSE, and, to a lesser extent, TRAP. Though not perfectly aligned, we suggest that the results in Figure 4 are generally consistent with the proposal that Chelsea speakers are using a lax voice articulatory setting.

[FIGURE 5 ABOUT HERE]

FIGURE 5. Non-normalised F2:F1 ratio of three vowel classes across Chelsea and Essex

To test this claim further, we turn to a second diagnostic of articulatory setting: differences across vowel classes in the ratio of (non-normalised) F2 to F1. Nolan (1983, p. 190) argues that

F2:F1 ratio is a more robust correlate of articulatory setting than simple F1 and F2 formant comparisons, since it is relatively independent of physiological differences among speakers. For lowered larynx as compared to a “neutral” setting, Nolan (1983) reports a lower F2:F1 ratio in the high-front vowels, a higher ratio in the high-back vowels, and a higher ratio in the low vowels. We used a linear mixed-effects regression model to test this prediction in our data, with F2:F1 ratio as the outcome variable and vowel class, show, and their interaction as predictors (speaker included as a random intercept). Results indicate a significant effect of the interaction between vowel class and show ( $F = 37.89$ ,  $p < 0.000$ ). Post-hoc comparisons confirm that the differences in F2:F1 ratio between Chelsea and Essex in the high-front ( $t = -5.362$ ,  $p < 0.000$ ) and high-back ( $t = 4.653$ ,  $p < 0.000$ ) regions are significant, with Chelsea showing a lower F2:F1 ratio in the high-front region and a higher ratio in the high-back one. This difference is depicted graphically in Figure 5. With the exception of the low vowels (where no difference in F2:F1 ratio for Chelsea and Essex is found), the results depicted in Figure 5 are consistent with the use of a lax voice articulatory setting among Chelsea speakers. We therefore take these results as a second piece of evidence in support of the proposal that what distinguishes Chelsea and Essex is a difference of articulatory setting.

Summarising our results so far, we find no evidence of a further anti-clockwise rotation of the short vowels in modern RP. Rather, the system appears to be in the same “levelled” supra-local configuration it was in fifteen years ago (Fabricius, 2007, 2019). What has changed, however, is the overall size of the vowel space, with a general inward convergence of the short vowels distinguishing Chelsea from Essex. Acoustic diagnostics are generally consistent with the idea that this pattern of inward convergence is linked to the adoption of a lax voice articulatory setting among Chelsea speakers, one in which a “lowered larynx ... and a relatively immobile jaw” (Laver 1980, 155) generate the centralised vowel realisations that we find. Tellingly, these acoustic and articulatory features of lax voice parallel the metapragmatic descriptions of contemporary RP, outlined previously (e.g., Kristen Stewart’s “detached jaw” and Russell Kane’s description of “squashed vowels”). Given these complementary sources of evidence, we suggest that Chelsea

speakers are indeed adopting a lax voice articulatory setting and that it is the use of this setting that sets their speech apart not only from speakers in Essex but also from earlier iterations of RP.

### **Embodying Eliteness**

The natural next question is why Chelsea speakers are doing this: why are individuals in Chelsea adopting a lax voice articulatory setting (and not individuals in Essex, for example)? In previous work (Levon & Holmes-Elliott, 2024), we have argued that the answer to this question lies in the specific *ethnokinesics* of class in Britain, that set of ideologies that links certain bodily postures and movements with different social class positionings (Agha, 2007, pp. 272–277). Research in sociology has argued that social class in Britain historically has been organised in terms of an ethics of *restraint*, such that dominant conceptualisations of “prestige” and “respectability” treat these constructs as being negatively correlated with the expression of emotion (e.g., Skeggs, 1997; Cannadine, 1999; Lawler, 2005). Recent research confirms the ongoing relevance of this ideal. In a study of elite government workers in Britain, for example, Friedman (2021) describes how senior civil servants are taught to enact a form of “studied neutrality”, a stance that they see as intimately tied to competence and authority (see also Ashley, 2021). Friedman describes this ideal of neutrality as a form of embodied cultural capital, a somatic disposition that serves to legitimate civil servants’ claims to authority and prestige. In other words, Friedman argues that neutrality is a form of bodily *hexis* (Bourdieu, 1977), a conventionalised mode of comporting one’s self that is emblematic of elite status in British society.

This norm includes adopting a posture of *stoicism*, as evidenced by the high cultural value placed on tropes like the “stiff upper lip” and “‘controlled excitement’, [where] strong emotions are cultivated but always kept under control” (Bull, 2019). It also includes the corporeal enactment of indifference. This was on display, for instance, in the case of Jacob Rees-Mogg, a Conservative Member of Parliament, who was lambasted in the press for reclining on the benches in the House of Commons during a debate about Brexit in September 2019. Anna Turley, a Member of Parliament

from the opposition Labour Party, was quoted as describing Rees-Mogg's behaviour as "the physical embodiment of arrogance and entitlement" (Rawlinson, 2019). While clearly critical, comments such as Turley's demonstrate the cultural association between embodied indifference and elite social status that exists in the UK.

Applying this cultural background to the current study, we argue that the adoption of lax voice by speakers in Chelsea functions quite literally as a physical embodiment of British ideals of eliteness. Specifically, we propose that Chelsea speakers orient to a set of qualities associated with elite status: restraint, detachment, indifference. This orientation pushes them to adopt a particular bodily posture (lax voice) that is iconically linked to these qualities. This articulatory posture, in turn, correlates with specific linguistic outcomes (compression in the lower half of the vowel space). According to this account, the positioning of the jaw and tongue among Chelsea speakers functions like any other form of bodily comportment, serving as a symbolic strategy for aligning with a culturally elite persona (Agha 2007). Chelsea speakers strategically adopt a lax voice setting as a way of "doing" eliteness (see also Podesva, 2021, Pratt, 2023a, 2023b, and Levon & Holmes-Elliott, 2024 for a more detailed discussion of bodies, linguistic variation, and social personae). While our argument that Chelsea speakers' strategic embodiment is preliminary, we submit that it is consistent with the available evidence, including diachronic comparisons with prior work on RP, acoustic diagnostics of articulatory setting in Chelsea versus Essex, and metapragmatic discussions of "posh" speech in Britain today. Further, as we highlight in our introduction, we note that analogous links between specific embodied postures and elite status have been reported for multiple English varieties across North America. Once again then, we have an example of a specific bodily posture (open jaw) used to perform eliteness, resulting in a strikingly similar set of linguistic outcomes as those examined here. These outcomes are also similar to the patterns of vowel lowering described by Hickey (2018) for Irish English, and Chevalier (2019) in South African English, where both authors observe the association of these changes with elite speakers and notions of overt prestige.

More broadly, it seems plausible to see a connection between parodic representations of elite speech patterns and vectors of language change. D’Onofrio, Pratt, and Van Hofwegen (2019) argue that the most recent advancements in the Californian Vowel Shift are best understood as a compression of the vowel space, where younger speakers have significantly smaller vowel space areas than older speakers. They suggest that the diachronic patterns are a result of the vowel space as a whole acting as a carrier of social meaning (see also Pratt, 2023b). This account suggests that the positive social associations that characterise the compressed vowel space in California (*elite*), along with the attractive embodied personae it is associated with (*valley girl*, *surfer*, etc.), may motivate the adoption of this articulatory setting by young California speakers and so help to explain recent advances in the shift. Likewise, we propose that our analyses of the vowel systems of speakers in *Made in Chelsea* and *The Only Way is Essex* point to a new pattern of elite distinction emerging, one characterized not by a further anti-clockwise rotation in the RP system, but rather by an overall shrinking of the vowel space among Chelsea speakers. A similar motivating force to that proposed for California could therefore be at work within Southern British English. In the British context, the association of a backed and compressed articulatory setting with eliteness could mean that it is readily adopted by young RP speakers, but rejected by their Essex counterparts (whose identity is traditionally linked to the working class Cockney speakers of London’s East End; Cole, 2021).

## **Conclusion**

In his discussion of contemporary articulations of privilege, Khan (2011) argues that elite status today is experienced as a sense of *ease*, an ability to stand above the fray and be unaffected by changing circumstances or situations (see also Thurlow & Jaworski, 2017). We suggest that this sense of ease has become enregistered in a series of embodied postures, potentially including the use of lax voice. If this were the case, it could then be possible to see the similar linguistic patterns we find in different regions – in London, Philadelphia, California, Ireland, and South Africa – as

local manifestations of a shared orientation to *ease* as how one enacts eliteness in the present-day. While further studies of different local ethnokinesic systems, and of the relationship between articulatory setting and observed linguistic outcomes, are required to substantiate a claim that lax voice circulates globally as an enregistered marker of elite status, we nevertheless note the similar social profile of vowel centralization in these different varieties of English as an interesting empirical fact, and one that offers a promising avenue for further comparative research.

Whether this further research ends up supporting our proposal that lax voice functions as a global emblem of eliteness, we hope in this article to have demonstrated that RP today is different from earlier versions of the variety. Analyses of the vowel system of speakers in *Made in Chelsea* demonstrate that the anti-clockwise rotation of the short vowels that took place in RP over the course of the twentieth century (Fabricius, 2019) has not progressed further. Instead, Chelsea speakers' vowel space areas are smaller than those in modern RP (and in Essex). We argue that this shrinking is consistent with the adoption by Chelsea speakers of a particular articulatory setting – lax voice – which has the effect of causing short vowels to centralize and is leading to widespread overlap among vowel classes in the lower half of the vowel space.

We believe that our arguments are important for three reasons. First, they contribute to the study of RP as a sociolinguistic variety, one that is habitually used by a given population of speakers and not (or not only) an abstract standard. As Fabricius (2018) notes, further research on variation in RP use among elite speakers is necessary if we hope to provide an adequate description of the variety, its social distribution, and the ways it may be changing (see also, *inter alia*, Fabricius, 2000). Related to this, our analysis also contributes to the study of elite speech and the ways in which elite distinction is constructed and communicated. While sociolinguistics has traditionally been focused on describing non-standard and other stigmatized varieties, based on the fact that doing so serves important theoretical and political purposes, we maintain that elite varieties are equally deserving of our attention since combatting sociolinguistic prejudice and hierarchy also requires understanding how those in positions of power maintain their dominant status. As

Coupland (2000, p. 624) notes, “elites perpetuate elite society by being seen to be elites, and ... by defining the capital value of symbols at their disposal” (see also Fabricius, 2018, p. 37).

This then leads to the third contribution we hope to make, which is the proposal that socially meaningful variable patterns may be grounded in, and motivated by, culturally relevant forms of embodiment. In her discussion of the relationship between social meaning and sound change, Eckert (2019, p. 1) argues that “sound change spreads by virtue of its being incorporated in a system of social meaning ... in which non-referential meaning is recruited into signs articulating social distinction.” We argue that, at least in certain cases, the non-referential linguistic sign can come to articulate social distinction by virtue of being tied to particular forms of bodily enactment, a product of speakers adopting embodied interactional styles in order to differentiate themselves from others in the social landscape (cf. Esposito & Gratton, 2020). In this respect, we hope to have demonstrated the potential relevance of reading language through the body (Bucholtz & Hall, 2016) and to have promoted the idea that sound change may not always (or not only) be about the sounds themselves, but also about the bodies that sounds emanate from.

## **Notes**

- 1 Some scholars have gone as far to claim that RP has already levelled into a broader Southern Standard British English variety (e.g., Cole & Strycharczuk, 2023). While this may be RP’s eventual fate, as our and others’ data show (e.g., Fabricius, 2018, 2019), there does still exist a phonetically distinct variety descended from “traditional” RP.

## **References**

- Adonis, A., & Pollard, S. (1997). *A class act: The myth of Britain’s classless society*. Hamish Hamilton.

- Agha, A. (2003). The social life of cultural value. *Language and Communication*, 23(3–4), 231–273.
- Agha, A. (2007). *Language and social relations*. Cambridge University Press.
- Ashley, L. (2021). Organisational Social Mobility Programmes as Mechanisms of Power and Control. *Work, Employment and Society*, 0950017021990550.  
<https://doi.org/10.1177/0950017021990550>
- Badia Barrera, B. (2015). *A sociolinguistic study of /t/ glottalling in young RP: Accent, class and education* [Unpublished PhD thesis]. University of Essex.
- Barreda, S., & Nearey, T. M. (2018). A regression approach to vowel normalization for missing and unbalanced data. *The Journal of the Acoustical Society of America*, 144(1), 500–520.  
<https://doi.org/10.1121/1.5047742>
- Bauer, L. (1985). Tracing phonetic change in the Received Pronunciation of British English. *Journal of Phonetics*, 13(1), 61–81.
- Biressi, A., & Nunn, H. (2013). *Class and Contemporary British Culture*. Palgrave Macmillan UK.  
<https://doi.org/10.1057/9781137314130>
- Blanden, J., Gregg, P., & Machin, S. (2005). Educational inequality and intergenerational mobility. In S. Machin & A. Vignoles (Eds.), *What's the good of education?: The economics of education in the UK* (pp. 99–114). Princeton University Press.
- Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge University Press.
- Bucholtz, M., & Hall, K. (2016). Embodied sociolinguistics. In N. Coupland (Ed.), *Sociolinguistics: Theoretical debates* (pp. 173–197). Cambridge University Press.
- Bull, A. (2019). *Class, Control, and Classical Music*. Oxford University Press.
- Burridge, K. (2004). Proper English: Rhetoric or reality. *English Australia Journal*, 22(1), 8–19.
- Buscha, F., & Sturgis, P. (2018). Declining social mobility? Evidence from five linked censuses in England and Wales 1971–2011. *The British Journal of Sociology*, 69(1), 154–182.  
<https://doi.org/10.1111/1468-4446.12275>



- Cannadine, D. (1999). *The rise and fall of class in Britain*. Columbia University Press.
- Clark, G. (2014). *The son also rises: Surnames and the history of social mobility*. Princeton University Press.
- Cole, A. (2021). *Language and identity in the Cockney Diaspora: A sociophonetic and variationist study*. [Unpublished PhD thesis]. University of Essex.
- Cole, A. (2022). Cockney moved East: The dialect of the first generation of East Londoners raised in Essex. *Dialectologia et Geolinguistica*, 30(1), 91–114. <https://doi.org/10.1515/dialect-2022-0005>
- Cole, A., & Strycharczuk, P. (2023). The search for linguistically coherent accents: Unsupervised clustering of diphthong variation in Southeast England. *English World-Wide. A Journal of Varieties of English*. <https://doi.org/10.1075/eww.22054.col>
- Collins, B., & Mees, I. (1999). *The real Professor Higgins: The life and career of Daniel Jones*. Walter de Gruyter.
- Coupland, N. (2000). Sociolinguistic prevarication about ‘standard English’. *Journal of Sociolinguistics*, 4(4), 622–634. <https://doi.org/10.1111/1467-9481.00133>
- Deterding, D. (1997). The Formants of Monophthong Vowels in Standard Southern British English Pronunciation. *Journal of the International Phonetic Association*, 27(1/2), 47–55.
- D’Onofrio, A., Pratt, T., & Van Hofwegen, J. (2019). Compression in the California Vowel Shift: Tracking generational sound change in California’s Central Valley. *Language Variation and Change*, 31(02), 193–217. <https://doi.org/10.1017/S0954394519000085>
- Eckert, P. (2019). The individual in the semiotic landscape. *Glossa: A Journal of General Linguistics*, 4(1), 1–15. <https://doi.org/10.5334/gjgl.640>
- Ellis, A. (1869). *On early English pronunciation* (Vol. 1). Truebner and Co.
- Esposito, L., & Gratton, C. (2020). Prosody and ideologies of embodiment: Variation in the use of pitch and articulation rate among fitness instructors. *Language in Society*, 1–26. <https://doi.org/10.1017/S0047404520000809>

- Fabricius, A. (2000). *T-glottalling: Between stigma and prestige: A sociolinguistic study of Modern RP* [Unpublished PhD thesis]. Copenhagen Business School.
- Fabricius, A. (2002). Weak vowels in modern RP: An acoustic study of happy Y -tensing and KIT /schwa shift. *Language Variation and Change*, 14(2), 211–237.  
<https://doi.org/10.1017/S0954394502142037>
- Fabricius, A. (2007). Variation and change in the TRAP and STRUT vowels of RP: A real time comparison of five acoustic data sets. *Journal of the International Phonetic Association*, 37(3), 293–320. <https://doi.org/10.1017/S002510030700312X>
- Fabricius, A. (2017). Twentieth-Century Received Pronunciation: Prevocalic /r/. In R. Hickey (Ed.), *Listening to the Past* (pp. 39–65). Cambridge University Press.  
<https://doi.org/10.1017/9781107279865.004>
- Fabricius, A. (2018). Social Change, Linguistic Change and Sociolinguistic Change in Received Pronunciation. In N. Braber & S. Jansen (Eds.), *Sociolinguistics in England* (pp. 35–66). Palgrave Macmillan UK. [https://doi.org/10.1057/978-1-137-56288-3\\_3](https://doi.org/10.1057/978-1-137-56288-3_3)
- Fabricius, A. (2019). The anticlockwise checked vowel chain shift in Modern RP in the twentieth century: Incrementations and diagonal shifts. In S. Calhoun, P. Escudero, M. Tabain, & P. Warren (Eds.), *Proceedings of the 19th International Congress of Phonetic Sciences* (pp. 592–596). Australasian Speech Science and Technology Association, Inc.
- Fabricius, A., & Mortensen, J. (2013). Language ideology and the notion of construct resources: A case study of modern RP. In T. Kristiansen & S. Grondelaers (Eds.), *Language (de)standardisation in late modern Europe: Experimental studies* (pp. 375–402). Novus Forlag.
- Fabricius, A., Watt, D., & Johnson, D. E. (2009). A comparison of three speaker-intrinsic vowel formant frequency normalization algorithms for sociophonetics. *Language Variation and Change*, 21(3), 413–435. <https://doi.org/10.1017/S0954394509990160>

- Fox, S. (2015). *The New Cockney: New Ethnicities and Adolescent Speech in the Traditional East End of London*. Palgrave.
- Friedman, S. (2021). *Navigating the labyrinth: Socio-economic background and career progression within the Civil Service* [Research Report]. Social Mobility Commission.  
<https://www.gov.uk/government/organisations/social-mobility-commission>
- Friedman, S., & Laurison, D. (2020). *The class ceiling: Why it pays to be privileged*. Polity Press.
- Fruehwald, J. (2023). *densityarea: Polygons of Bivariate Density Distributions (0.1.0)* [Computer software]. <https://github.com/JoFrhwld/densityarea>, <https://jofrhwld.github.io/densityarea/>
- Gimson, A. C. (1962). *An introduction to the pronunciation of English*. Edward Arnold.
- Halfacre, C., & Khattab, G. (2019). North-South dividers in privately educated speakers: A sociolinguistic study of Received Pronunciation using the FOOT-STRUT and TRAP-BATH distinctions in the North East and South East of England. *Proceedings of the 19th International Congress of Phonetic Sciences*, 2665–2669.
- Hannisdal, B. (2006). *Variability and change in Received Pronunciation: A study of six phonological variables in the speech of television newsreaders* [Unpublished PhD thesis]. University of Bergen.
- Harrington, J. (2007). Evidence for a relationship between synchronic variability and diachronic change in the Queen's annual Christmas broadcasts. In J. Hay & J. Hualde (Eds.), *Laboratory Phonology 9* (pp. 125–143). de Gruyter.
- Harrington, J., Palethorpe, S., & Watson, C. (2000). Monophthongal vowel changes in Received Pronunciation: An acoustic analysis of the Queen's Christmas broadcasts. *Journal of the International Phonetic Association*, 30(1–2), 63–78.  
<https://doi.org/10.1017/S0025100300006666>
- Hawkins, S., & Midgley, J. (2005). Formant frequencies of RP monophthongs in four age groups of speakers. *Journal of the International Phonetic Association*, 35(2), 183–199.

- Heritage, S. (2021, January 28). Doe-eyed Kristen Stewart might just take the crown as Princess Diana. *The Guardian*. <http://www.theguardian.com/film/2021/jan/28/kristen-stewart-princess-diana-spencer-biopic-film>
- Hickey, R. (2018). ‘Yes, that’s the best’: Short front vowel lowering in English today: Young people across the anglophone world are changing their pronunciation of vowels according to a change which started in North America. *English Today*, 34(2), 9–16.  
<https://doi.org/10.1017/S0266078417000487>
- Holmes-Elliott, S. (2015). *London calling: Assessing the spread of metropolitan features in the southeast* [Unpublished PhD thesis]. University of Glasgow.
- Honikman, B. (1964). Articulatory settings. In D. Abercrombie, D. Fry, P. MacCarthy, N. Scott, & J. Trim (Eds.), *In honour of Daniel Jones: Papers contributed on the occasion of his eightieth birthday, 12 September 1961* (pp. 78–84). Longman.
- Jansen, S., & Mompean, J. (2023). GOOSE -fronting in Received Pronunciation across time: A trend study. *Language Variation and Change*, 35(1), 55–77.  
<https://doi.org/10.1017/S0954394523000017>
- Jones, D. (1909). *The pronunciation of English*. Cambridge University Press.
- Jones, D. (1917). *An English pronouncing dictionary* (1st ed.). Dent.
- Jones, D. (1926). *An English pronouncing dictionary* (2nd ed.). Dent.
- Kendall, T., & Thomas, E. (2018). *vowels: Vowel Manipulation, Normalization, and Plotting* (R package version 1.2-2) [Computer software]. <https://CRAN.R-project.org/package=vowels>
- Kerswill, P. (2001). Mobility, meritocracy and dialect levelling: The fading (and phasing) out of Received Pronunciation. In P. Rajamäe & K. Vogelberg (Eds.), *British studies in the new millennium: The challenge of the grassroots* (pp. 45–58). University of Tartu.
- Kerswill, P. (2007). Standard and non-standard English. In D. Britain (Ed.), *Language in the British Isles* (pp. 34–51). Cambridge University Press.

- Khan, S. (2011). *Privilege: The making of an adolescent elite at St Paul's school*. Princeton University Press.
- Laver, J. (1980). *The phonetic description of voice quality*. Cambridge University Press.
- Lawler, S. (2005). Disgusted Subjects: The Making of Middle-Class Identities. *The Sociological Review*, 53(3), 429–446. <https://doi.org/10.1111/j.1467-954X.2005.00560.x>
- Levon, E., & Holmes-Elliott, S. (2024). Voices, bodies, and the cultural organization of meaning. *Signs and Society*, 24(1).
- Lindblom, B. (1990). Explaining phonetic variation: A sketch of the H&H theory. In W. Hardcastle & A. Marchal (Eds.), *Speech production and speech modelling* (pp. 403–439). Springer.
- Moon, S., & Lindblom, B. (1994). Interaction between duration, context, and speaking style in English stressed vowels. *The Journal of the Acoustical Society of America*, 96(1), 40–55. <https://doi.org/10.1121/1.410492>
- Mott, B. (2012). Traditional Cockney and popular London speech. *Dialectologia*, 9, 69–94.
- Mugglestone, L. (2007). *Talking proper: The rise of accent as social symbol*. Oxford University Press.
- Nearey, T. (1978). *Phonetic Feature Systems for Vowels*. Indiana University Linguistics Club.
- Nolan, F. (1983). *The phonetic basis of speaker recognition*. Cambridge University Press.
- Podesva, R. (2021). The role of the body in language change. In L. Hall-Lew, E. Moore, & R. Podesva (Eds.), *Social meaning and linguistic variation: Theoretical foundations* (pp. 363–381). Cambridge University Press.
- Pratt, T. (2020). Embodying “tech”: Articulatory setting, phonetic variation, and social meaning. *Journal of Sociolinguistics*, 24(3), josl.12369. <https://doi.org/10.1111/josl.12369>
- Pratt, T. (2023a). Affect in sociolinguistic style. *Language in Society*, 52(1), 1–26. <https://doi.org/10.1017/S0047404521000774>
- Pratt, T. (2023b). The vowel space as sociolinguistic sign. *Journal of Sociolinguistics*, josl.12617. <https://doi.org/10.1111/josl.12617>

- Pratt, T., & D’Onofrio, A. (2017). Jaw setting and the California Vowel Shift in parodic performance. *Language in Society*, 46(3), 283–312.  
<https://doi.org/10.1017/S0047404517000227>
- R Core Team. (2020). *R: A Language and Environment for Statistical Computing* [Computer software]. R Foundation for Statistical Computing. <https://www.R-project.org/>
- Rawlinson, K. (2019, September 3). ‘Sit up!’ – Jacob Rees-Mogg under fire for slouching in Commons. *The Guardian*. <http://www.theguardian.com/politics/2019/sep/03/sit-up-jacob-rees-mogg-under-fire-for-slouching-in-commons>
- Roach, P. (2004). British English: Received Pronunciation (Illustrations of the IPA). *Journal of the International Phonetic Association*, 34(2), 239–245.
- Rosenfelder, I., Freuhwald, J., Evanini, K., & Yuan, J. (2011). *FAVE (Forced Alignment and Vowel Extraction) program suite* [Computer software]. <http://fave.ling.upenn.edu>
- Savage, M., Devine, F., Cunningham, N., Taylor, M., Li, Y., Hjellbrekke, J., Roux, B. L., Friedman, S., & Miles, A. (2013). A New Model of Social Class? Findings from the BBC’s Great British Class Survey Experiment. *Sociology*, 47(2), 219–250.
- Skeggs, B. (1997). *Formations of class and gender: Becoming respectable*. Sage.
- Thomas, E. (2011). *Sociophonetics: An introduction*. Palgrave.
- Thurlow, C., & Jaworski, A. (2017). Introducing elite discourse: The rhetorics of status, privilege, and power. *Social Semiotics*, 27(3), 243–254.
- Tollfree, L. (1999). South East London English: Discrete versus continuous modelling of consonantal reduction. In P. Foulkes & G. Docherty (Eds.), *Urban Voices*. Routledge.
- Torgersen, E., & Kerswill, P. (2004). Internal and external motivation in phonetic change: Dialect levelling outcomes for an English vowel shift. *Journal of Sociolinguistics*, 8(1), 23–53.  
<https://doi.org/10.1111/j.1467-9841.2004.00250.x>
- Trautmüller, H. (1990). Analytical expressions for the tonotopic sensory scale. *The Journal of the Acoustical Society of America*, 88(1), 97–100. <https://doi.org/10.1121/1.399849>

- Trudgill, P. (1986). *Dialects in contact*. Blackwell.
- Trudgill, P. (2004). *New-dialect formation: The inevitability of Colonial Englishes*. Oxford University Press.
- Turner, A. (2013). *A classless society: Britain in the 1990s*. Aurum Press.
- Wakeling, P., & Savage, M. (2015). Entry to Elite Positions and the Stratification of Higher Education in Britain. *The Sociological Review*, 63(2), 290–320.  
<https://doi.org/10.1111/1467-954X.12284>
- Watt, D., & Fabricius, A. (2002). Evaluation of a technique for improving the mapping of multiple speakers' vowel spaces in the F1~F2 plane. *Leeds Working Papers in Linguistics*, 9, 159–173.
- Wells, J. (1982). *Accents of English*. Cambridge University Press.
- Wells, J. (1994). The cockneyfication of R.P.? In G. Melchers & N.-L. Johannesson (Eds.), *Nonstandard varieties of language* (pp. 198–205). Almqvist & Wiksell International.
- Wells, J. (1997). What's happening to received pronunciation? *English Phonetics*, 1, 13–23.
- Wikström, J. (2013). An acoustic study of the RP English LOT and THOUGHT vowels. *Journal of the International Phonetic Association*, 43(1), 37–47.
- Williams, H. (2006). *Britain's Power Elites: The Rebirth of a Ruling Class*. Constable.

## Appendix

ANOVA Table for best model of (Nearey-normalised) F1-difference from FLEECE

Factor Group	SumSq	df	F	$p <$
Vowel	17.631	3	398.797	0.000
Show	0.0531	1	3.602	0.068
Vowel:Show	0.3743	3	8.467	0.000

Total n = 1654. Random Intercepts: Speaker (30), Word (438). Log likelihood: -1028.4.

Pairwise comparisons (Chelsea-Essex) for F1-difference from FLEECE

Vowel	Estimate (Chelse-Essex)	SE	df	<i>t</i>	p <
COT	0.052	0.021	47.7	2.54	0.014
DRESS	-0.069	0.021	47.5	-3.36	0.002
FOOT	-0.078	0.036	412.1	-2.18	0.030
KIT	-0.035	0.021	47.5	-1.72	0.092
NURSE	-0.073	0.032	265.7	-2.27	0.024
PALM	0.061	0.025	110.1	2.42	0.018
STRUT	0.065	0.021	50.0	3.11	0.003
TRAP	0.010	0.020	46.5	0.48	0.635

ANOVA table for best model of (Nearey-normalised) F2-difference from FLEECE

Factor Group	SumSq	df	F	<i>p</i> -value
Vowel	1.556	3	111.779	0.000
Show	0.013	1	2.835	0.103
Vowel:Show	0.064	3	4.629	0.003

Total n = 1654. Random Intercepts: Speaker (30), Word (438). Log likelihood: -1910.9.

Pairwise comparisons (Chelsea-Essex) for F2-difference from FLEECE

Vowel	Estimate (Chelsea-Essex)	SE	df	<i>t</i>	p <
COT	0.052	0.017	37.0	3.04	0.004
DRESS	0.048	0.017	37.3	2.81	0.008
FOOT	-0.027	0.025	167.5	-1.06	0.289
KIT	0.032	0.017	37.0	1.87	0.069



NURSE	0.050	0.023	122.0	2.17	0.032
PALM	-0.022	0.020	64.3	-1.15	0.256
STRUT	0.013	0.017	38.1	0.78	0.443
TRAP	0.042	0.017	36.7	2.51	0.017

Mean (non-normalized) F1 and F2 values and *S*-centroid normalization calculations for diachronic comparisons of RP and Cockney (cf. Figures 2a-d).

Dataset	Vowel	mean F1	mean F2	centroid F1	centroid F2	normed F1	normed F2
Traditional RP							
	COT	609	1125	416	1421	1.46	0.79
	DRESS	444	1923	416	1421	1.07	1.34
	FOOT	391	1136	416	1421	0.94	0.80
	KIT	367	1987	416	1421	0.88	1.40
	STRUT	687	1382	416	1421	1.65	0.97
	TRAP	579	1769	416	1421	1.39	1.24
Modern RP							
	COT	492	987	470	1364	1.05	0.72
	DRESS	580	1690	470	1364	1.23	1.24
	FOOT	402	1555	470	1364	0.86	1.14
	KIT	398	1971	470	1364	0.85	1.45
	STRUT	570	1270	470	1364	1.21	0.93
	TRAP	738	1443	470	1364	1.57	1.06
Chelsea							
	COT	160	1137	564	1391	1.08	0.82
	DRESS	677	1670	564	1391	1.20	1.20

FOOT	562	1545	573	1426	0.98	1.08
KIT	536	1907	564	1391	0.95	1.37
STRUT	665	1347	563	1397	1.18	0.96
TRAP	744	1540	564	1391	1.32	1.11

---

**Traditional Cockney**

COT	620	930	463	1563	1.34	0.59
DRESS	550	2080	463	1563	1.19	1.33
FOOT	410	1080	463	1563	0.88	0.69
KIT	400	2200	463	1563	0.86	1.41
STRUT	750	1390	463	1563	1.62	0.90
TRAP	710	1950	463	1563	1.53	1.25

---

**Essex**

COT	664	1247	582	1479	1.14	0.84
DRESS	643	1949	582	1479	1.11	1.32
FOOT	497	1490	582	1479	0.85	1.01
KIT	522	2143	582	1479	0.90	1.45
STRUT	726	1396	582	1479	1.25	0.94
TRAP	786	1709	582	1479	1.35	1.16

---