

Applying Historical Phonology

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8.1 INTRODUCTION

This chapter identifies a different focus from the earlier chapters that deal with phonological change. The aim of historical phonology is to describe and explain the way a language's sound system has developed over time. The notion of reconstructed or original pronunciation (OP) has arisen because of the interest in this process that has come from people who are not themselves phonologists. Indeed, they may know little or nothing about phonology as a branch of linguistics. They simply want to know how people from earlier ages sounded when they spoke, and they assume that academic linguists – and especially phoneticians and phonologists – can help. This interest can come as something of a surprise to academic researchers. While those studying the history of pronunciation find their field fascinating and challenging, and consider their research to be an important contribution to our understanding of language as a whole, none I think ever thought that it was going to have practical applications! I can find no record of the term *applied historical phonology* before I started using it in 2004.

Thus OP (the abbreviation now widely used in this field) is a branch of applied linguistics, and as such takes its aims, methods and validation from that domain. My definition (in Crystal 1980, and without change in subsequent editions) is 'a branch of linguistics where the primary concern is the application of linguistic theories, methods, and findings to the elucidation of language problems which have arisen in other areas of experience'. *Elucidation* is a cautious word, falling short of *solution*, which is what applied linguists ultimately hope to achieve, and indeed there have been many solutions found as experience has grown in such fields as English language teaching and speech pathology. But when a new area of application arises, it is as well to be cautious. The reconstruction of the way people spoke in

earlier periods at present can only be an exploration of possibilities and likelihoods, and models of OP in applied contexts will certainly need revision as time goes by.

The nature of the task varies depending on the period being explored, reflecting the nature of the available evidence (see Lass 2006, Mugglestone 2006 and, for Early Modern English, Dobson 1968). For Old English, this is almost entirely based on spellings, informed by correspondences with Latin and other languages, and supplemented by structural features in the poetry (such as alliteration) and occasional rhetorical observations from the writers of the time. Doubled letters in the spelling are a clear indication of a contrast in consonant length, as in *stellan* 'leap' vs. *stelan* 'steal'. For Middle English, rhyme (such as Chaucer's *was* and *glass* in the Prologue to *The Canterbury Tales*, line 151) forms a major part of the reasoning, along with a huge growth in the amount of orthographic and dialect data arising from the great increase in manuscripts. For Early Modern English, not only are there more publications available (such as in rhyming poetry), we see the emergence of serious descriptions of English, many of which were written because of the sixteenth-century concern for spelling reform, and thus of especial relevance to historical phonology. Richard Mulcaster, for example, clearly describes the pronunciation of *t* in such words as *action*: it 'soundeth like the full *s*' (Mulcaster 1582: 122).

The period also sees the arrival of the first dictionaries, though these are of limited use. Some are sporadic in their observations about English because their focus is on a foreign language, such as John Palsgrave's *L'éclaircissement de la langue française* (1530). Others are word lists, such as Peter Levin's *Manipulus Vocabulorum* (1570), the first rhyming dictionary, where it is unclear whether a particular grouping is based on spelling resemblances rather than sound. Dictionaries in the seventeenth century begin to be more systematic, and during the eighteenth century works such as John Walker's *Critical Pronouncing Dictionary* (1791) become a major source of information, especially about social variation and the changes taking place in pronunciation at the time, though entries have to be cautiously interpreted because many writers had strongly prescriptive or purist views. All periods, of course, are informed by our general understanding of the nature of phonetic and phonological change, as part of the evolution of historical linguistics.

Decision-making is now more robust (and more complex) than it used to be, thanks largely to the increased availability of data as a result of computational advances in the later decades of the twentieth century, and ongoing. Spellings used by authors from a period are more accessible in searchable

corpora, such as *Early English Books Online* (EEBO), and reinforced by the lists of spelling variants made by lexicographers, notably in the online *Oxford English Dictionary*. The same point applies to the study of potential rhymes: online search in resources such as EEBO now permits readier compilation, and it is much easier to bring together the views of different writers, where these exist – a particularly valuable source of information during and after the sixteenth century. Increasingly significant is the impact of sociolinguistics and pragmatics, the former drawing attention to the social and regional diversity present in a period, the latter taking into account the attitudes and backgrounds of individual authors and speakers, and the nature of the audiences for whom they wrote. It is now clear, from sociolinguistic studies of present-day language variation, that change does not take place at a uniform rate: different ages, genders, and social groups adopt a feature at different times, and words displaying that feature accept the change at different times. A pragmatic perspective can be used to identify factors in the background of writers, such as the orthoepists of the sixteenth and seventeenth centuries, that would lead them to favour some pronunciations at the expense of others. A literary example is the character of Holofernes in *Love's Labours Lost*, who pedantically insists on pronouncing every letter in a word (such as the *b* in *debt*), and criticises those who leave them out. While this is clearly a satirical portrait, and commentators have speculated about the identity of the real-world personality that Shakespeare may have had in mind (Richard Mulcaster, perhaps – see the entry in Dobson and Wells 2015: 168), the character implies a recognition of the existence of an attitude to pronunciation that must be taken into account when reading contemporary descriptions.

Some kinds of potential evidence are less affected by computational and statistical advances, and remain subjective, such as the use of puns, where the decision as to whether a pun is justified is more a matter for literary critics than for linguists. Shakespeare studies in particular have been exercised by different opinions as to how far puns can be used to warrant a phonological decision, such as Cercignani's (1981) criticism of Kökeritz (1953) for including examples that some would consider dubious. But subjectivity also affects decisions about rhymes. If two lines happen to end with the same sounds, this does not necessarily mean they count as a rhyme. It is not always obvious whether a rhyme is present, especially when there are sequences of lines in blank verse or prose, as in *King John* (4.2.53–54), where Pembroke requests the freeing of Arthur 'whose restraint / Doth move the murmuring lips of discontent / To break into this dangerous argument'. There are no other rhyming candidates in

the rest of his speech, and Cercignani's principle (1981: 9–10) has to apply: 'an obvious prerequisite to the discussion of any rhyme from a phonological point of view is that two or more words are so manifestly intended to rhyme together as to justify their claim to the name of rhyme'. Caution has to be exercised even in cases where the verse is clearly rhyming, for the rhyme pattern may be unclear, and some of the words in the sequence may have alternative values. An example is the Fool's playfulness in *King Lear* (1.4.314), where we find several variables in the sequence *caught her / daughter / slaughter / halter / after*, depending on whether we treat the *ghs* as silent or /f/, retain /l/ in *halter*, and omit /f/ in *after* (as in colloquial present-day *a'ternoon*) as well as a decision to be made about the various <a>-vowel values.

Testing hypotheses about frequency and consistency of use – to establish patterns and preferences in such areas as spelling and punctuation – has been facilitated by the use of search routines in several websites, such as *Shakespeare's Words* (Crystal and Crystal 2002), though results always have to be treated with caution, as they reflect the choice of text that editors have made. For example, in the First Folio we find *murder* and its derivative forms spelled as *murder* (eighty-four times) and as *murther* (175 times), so if an analysis used an edition that consistentised on *murder*, it would miss the point that a fricative consonant was an option – and a similar omission would occur if the editorial decision went in the other direction. A particularly common issue arises over hyphenation, which can alter our perception of whether a sequence of words is a compound or not, with implications for the way the sequence should be stressed. For example, in *Antony and Cleopatra* (2.7.2), we hear the First Servant say 'Some o' their plants are ill-rooted already', in which *ill-rooted* (meaning 'unstable', 'likely to fall down') is taken as an adjectival compound, which would motivate a single primary stress; but in the First Folio there is no hyphen, which suggests a rendition in which *ill* and *rooted* are given equal stresses.

8.2 CONSTITUENCIES OF INTEREST

The operative word in my definition of applied linguistics is, of course, *problem*, and this is always initially specified by the non-linguist. What is interesting, in relation to the current topic, is that the nature of the problem varies, depending on which period of English we are dealing with, and the

range of situations involved. For Early Modern English, the period that has received most investigation to date, there have been five constituencies, each with a different practical reason for wanting to find out about OP.

8.2.1 Music

Practitioners of early music want to hear how the songs and madrigals of the period sounded, especially in places where rhymes fail to work in Modern English (such as the opening lines of John Dowland's 'Sleep, Wayward Thoughts', where *love* rhymes with *move*) or where alliterations, assonances and stress shifts would present the modern singer with a new and unfamiliar phonaesthetic. In the same piece, two lines end in *fear* and *appear*, presenting singers with a choice: as postvocalic /r/ was pronounced at this time (see Section 8.4), should they elongate the long vowel and keep the /r/ short, or shorten the vowel quantity and elongate the /r/? And which quality of vowel should they go for, given that there is a choice in OP: both words rhyme with /i:/-quality words (such as *here*) as well as /ɛ:/-quality words (such as *there*)? A few lines later we find a nice example of the new phonaesthetic, 'Impatient, yet of perfect temperature', where all the lexical words have their character altered in OP: /ɪm'pɛ:siənt/, /'pɛ:ɪfɪt/, /'tempəratəɪ/, with a closer articulation of *yet* approaching /ɪ/. As singers usually produce vowels in a more open articulation than would be heard in everyday speech, the question arises of how far this process would affect the auditory impact of OP. For example, in my analysis the diphthongs in such words as *my*, *boy* and *now* all have a central onset (/əɪ/, /əɪ/, /əʊ/). In singing, it would be natural to use a more open articulation, in which case the two diphthongs would approximate to those in Modern English, and the auditory character of the OP would be lost. A great deal of discussion among singers who have performed OP concerts (see the references at Crystal 2011) has focused on issues of this kind.

8.2.2 Religion

Two domains have generated an interest in OP, one biblical, the other liturgical, with a common focus on oratory. The biblical interest was sparked by the 400th anniversary of the King James Bible in 2011, when there were

many readings, and it was a natural question to ask how the text would have sounded to a contemporary Jacobean audience. A few years later, the British Library, publishing a facsimile edition of William Tyndale's translation of the Gospel (the Library owning one of only three known surviving copies of the 1526 edition), accompanied the book with a CD recording of the Matthew Gospel in the OP of its time (Crystal 2013b). Also in 2013, John Wall of the University of North Carolina published his proposal for a Virtual St Paul's project – a reconstruction of the London cathedral and its churchyard as it would have been in the early seventeenth century (Wall 2013). John Donne, Dean of the Cathedral, is reputed to have given sermons to thousands of people in the yard, and the question was asked how such an event would have sounded, and how many of the people would have been able to hear him. A visual model was created, and a reading recorded in OP of his sermon for Gunpowder Day 1622. In the online site, it is possible to simulate how the sermon would have sounded to people who were standing near the speaker and at various distances from him (at <https://vpcp.chass.ncsu.edu>). In a second stage of the project (Wall 2020), a re-creation was made of the entire liturgy for two representative days from the liturgical calendar: Easter Sunday and the Tuesday after the First Sunday in Advent, using the Book of Common Prayer, and including choir and organ music. All liturgical texts were recorded in OP by a team of actors, along with a sermon in the morning by Bishop Lancelot Andrewes, and another in the afternoon by John Donne. The aim of the project is summarised thus (at <https://vpcathedral.chass.ncsu.edu>):

Our goals in this project have included exploring how the liturgies and sermons that survive for us in books and manuscripts served for Donne and his contemporaries as scripts for performance that achieve their true identity when enacted and delivered before specific audiences in particular places on specific occasions, thus recovering interactive and performative elements in English worship.

The project team felt that only a rendition in OP would allow them to provide a plausible presentation of the events on those days.

8.2.3 Heritage

Some of the locations which have tried to replicate the life and times of the early seventeenth century have shown an interest in having their participants

use OP. Among the best-known sites are Plimoth Plantation (the Mayflower landing) in Massachusetts and Shakespeare's Birthplace in Stratford-upon-Avon, but there are numerous smaller-scale heritage projects, especially in the United States. Along with the careful reconstruction of ways of life, staff interacting with the public will often adopt a dialect that resembles (to the best of their ability) the kind of English which would have been used by the people of the time, and it is a natural next step to try to make the older grammar and vocabulary phonetically plausible. This is the domain about which least is known about OP usage in practice, as practitioners rarely report their experience; but at an informal level there is certainly an awareness of OP that is realised by performances of varying levels of accuracy, depending on the amount of training received.

8.2.4 Theatre

The primary interest has been in relation to Shakespeare, where OP takes its place alongside other 'original practices' (sometimes, confusingly, also called OP), as part of an ethos where the intention is to get as close as possible to how the plays would have been performed and heard during his lifetime. So, for example, Shakespeare's Globe in London is a reconstruction (insofar as historical records permit) of the original Globe theatre that burned down in 1611, and it has devoted a great deal of its work to presenting plays using original music, instruments, costumes, lighting and (what is often forgotten) actor movement – on the outdoor main stage, to cope with the two large pillars holding up the 'heavens', and in the indoor Wanamaker Playhouse (opened in 2014), to cope with the restricted sightlines from the tiered galleries on either side of the stage. Although original practices had been explored in many productions from the outset (the theatre opened its doors in 1997), no attempt was made to deal with pronunciation until 2004. The delay was due to a concern that a 400-year-old OP would not be intelligible to a present-day audience, and for a theatre that was open only half the year, and with no public subsidy, the risk that people would stay away, fearing unintelligibility, was too great.

The change of heart came about as a result of the initiative of director Tim Carroll, supported by artistic director Mark Rylance, who opted to explore OP for its production of *Romeo and Juliet* in 2004. It was only a tentative exploration: OP performances took place for just one weekend in June; the

rest of the run was in modern English (for the full story, see Crystal 2005). But the experiment, as judged by audience feedback sessions, was so positive that the next year the entire run of *Troilus and Cressida* (director Giles Block) was presented in OP. In the audiences were theatre personalities from other parts of the world, who were so intrigued by what they heard that they began to explore the option themselves. Since then, some twenty Shakespeare plays have been given an OP production, mainly in the United States – American actors and directors finding themselves warming to the period pronunciation far more than was ever possible with Received Pronunciation, which they found difficult to ‘own’ (Meier 2010). Nor has Shakespeare been the only writer to be given a phonological makeover: in 2015 the Globe presented Christopher Marlowe’s *Dr Faustus* in OP in the Wanamaker Playhouse, and the following year a dramatised version of *Henslowe’s Diary*.

Theatre interest was stimulated by several issues. In particular, OP solved two problems that had long exercised actors: it eliminated the rhymes that no longer work in modern English, and it pointed to puns that modern English pronunciation hides. In the rhyme-dominant *A Midsummer Night’s Dream*, for example, about a seventh of the 466 rhyming units (mainly couplets, but sometimes with several lines rhyming) do not rhyme today, such as *one/alone*, *eye/remedy*, *grove/love*. In some plays the rhyme occupies a dramatically important position, such as at the end of a scene, and actors regularly complain about the difficulty in speaking such couplets effectively – such as the *one/Scone* pair that ends *Macbeth* or the *so/shrew* pair that ends *The Taming of the Shrew* (all of which in OP would have had an /o:/ vowel). Unappreciated puns can be illustrated from Thersites’s insult about Ajax (‘for whomsoever you take him to be, he is Ajax’) in *Troilus and Cressida* (2.1.63), which falls flat without an appreciation that one of the pronunciations of the name *Ajax* was /əˈdʒe:ks/, and that *jakes* was a contemporary word for a lavatory. Another case occurs in *As You Like It* (2.7.33), where Jaques’s description of what Touchstone has said about time (‘Tis but an hour ago since it was nine/ And after one hour more ’twill be eleven’ makes him ‘laugh, sans intermission, / An hour by his dial’). Actors struggle to find the humour, but it is virtually impossible without an appreciation that the pronunciation of *hour* /o:ɹ/ was the same as that of *whore*.

Apart from resolving issues of rhyme and wordplay, OP presents actors with a fresh phonaesthetic, involving a more rapid mode of articulation (as Hamlet recommends (*Hamlet* 3.2.1): ‘Speak the speech . . . trippingly on the tongue’), a new set of resonances arising from such factors as postvocalic /ɹ/, optional *h*-dropping, syllabified noun endings (*musician*, *conversation*, etc. as

/sɪən/), the centralised diphthongs mentioned above (/əɪ/ in *my* and *boy*, /əʊ/ in *now*), and new long vowels in words like *all* /ɑ:l/ and the exclamation *O* /o:/, which are especially noticeable because of their metrical prominence within a line. A line can sound very different as a result: for example, in Sonnet 55, we read 'When wasteful war shall statues overturn'. In RP, *wasteful*, *war* and *turn* have very different vowel qualities, whereas in OP they have a common resonance – monophthongs, more open and all unrounded: in the transcription I use for the *Oxford Dictionary* (Crystal 2016), /wastfəl, wɑ:r, tɜ:rn/. Speech rate was certainly a major factor: in a line such as 'It is my lady; O, it is my love' (*Romeo and Juliet* 2.2.10), the unstressing of the two instances of *my* /məɪ/ to /mɪ/ helps to shave a second off the articulation – which may not seem much, but cumulatively over a whole play the difference becomes significant. The 2004 experiment was a unique event, in which the same cast performed the same text in both OP and Present-Day English, a situation unlikely ever to be repeated. The OP production was some ten minutes shorter than the modern one.

Characterisation is another area where OP choices come to the fore. In the Kansas University OP production of *A Midsummer Night's Dream* (Meier 2010), there was considerable discussion during rehearsals of the kind of speech to attribute to the various characters, and in particular the question of whether everyone should sound or drop their aitches. There was agreement that the upper-class characters, such as Theseus and Hippolyta, well-educated and literate, would respect them. There was also agreement that the mechanicals – evidently able to read scripts (though not always very well) – would drop them, much as today (and clearly shown in the spelling 'Ercles for Hercules, used by Bottom). But what should happen to the fairies? Were they 'well-educated' fairies, who would keep their aitches, or more 'down-to-earth' fairies who would be likely to drop them? In the event, the company chose to have the fairies *h*-less. And this had an unexpected but dramatically neat consequence. When Puck is imitating the voices of Demetrius and Lysander, as they chase each other through the forest (in Act 3.2), he was able to introduce *h*'s in such sentences as (Demetrius) 'Here, villain, drawn and ready!' and (Lysander) 'We'll try no manhood here'. Perhaps few in the audience would have noticed, but it is out of such little decisions that convincing characterisations are made. And a similar discussion over the use of /h/ has taken place in other plays. If Maria in *Twelfth Night* drops her aitches, then Viola can mock her in the exchange at 1.5.194: 'Will you 'oist sail, sir? 'ere lies your way. Viola: No, good swabber. I am to 'ull 'ere a little

longer.' And if Feste drops his aitches, he can adopt them later in the play when he impersonates Sir Topas.

8.2.5 Non-dramatic Poetry

Outside of drama, the poetry of the period has also attracted a great deal of OP attention, for similar reasons. Shakespeare's sonnets, in particular, have all been recorded and the pronunciation choices debated. The notion of choice is critical. OP is a sound system and thus allows as much phonetic variation in the realisation of its phonemes as any modern phonology, as when initial /t/ might be given dental or alveolar articulations, or final /t/ might be glottalised. Additionally, any rendition needs to take into account the issue of different stylistic levels. Just as in Modern English we hear considerable difference in pronunciation between formal and informal styles of speech, so in OP there are available choices that will depend on one's view of the setting for which the poetry was written. Were the sonnets intended as pieces of formal recitation (which is how they are usually rendered in modern performance) or were they read colloquially? There are certainly several signs of the latter in the language used, such as the opening line of Sonnet 40, which begins 'Take all my loves, my love, yea, take them all, / What hast thou then more than thou hadst before?' If we assume a colloquial style, then there are immediate phonological implications, such as using an unstressed /mɪ/ for *my*, the dropping of the initial consonant in *them*, and of /h/ in *hast* and *hadst*, as well as elision of the final *t*'s. *Yea* comes to sound like modern *yeah*, rather than the ponderous *yay*.

A similar question of choice arises with writers who use an archaic style: should the lines be read in an earlier form of OP? In the early sixteenth century, it seems fairly clear that the initial consonant in such words as *know* and *gnaw* was sounded, and these are heard in the Tyndale recording of Matthew's Gospel mentioned above (2.2). By Shakespeare's time, the consensus seems to be that these letters were now silent – apart from in the speech of pedants such as Holofernes (in *Love's Labour's Lost*), who would have every consonant pronounced, and perhaps of some older people. Should an older period of OP be used when reading the archaic diction in Spenser, for example (as in 'lofty trees clad with summers pride')? And if so, how far back should one go? The same issue would arise with Gower in

Pericles, who uses such words as *y-slacked* and *iwis* and old inflections such as *perishen* and *escapend*.

8.3 HISTORY

The Globe experiment was not the first time that people had shown interest in reconstructing the pronunciation of Elizabethan English. It was simply the latest manifestation of a long tradition of study that reaches back to the early 'sound-law' days of nineteenth-century comparative philology. But in the middle of that century a new perspective was added to the focus on the distant past that had characterised the subject hitherto, with a renewed interest in Shakespeare being the primary motivation (for a full account of this period, see Crystal 2013a, adapted in the introduction to Crystal 2016). Although individual rhymes, puns and prosodic patterns had often been mentioned in books on the language, the first attempt that I have been able to find of someone addressing the task in a systematic way was Richard Grant White, an American lawyer who was also a literary and music critic, and who wrote a memorandum on Elizabethan pronunciation as an appendix to his edition of Shakespeare in 1865.

The interest that had been growing in the United States during the 1850s was paralleled by a British interest that achieved its first major treatment in Alexander Ellis's *On Early English Pronunciation* (1869–1874), in which Chaucer and Shakespeare were especially prominent. However, there was little interest in using OP in actual performance. In Part 3 of his book (1871: 982), he makes it clear that, although his readings of Shakespeare 'to many persons, including well-known elocutionists' had received 'an expression of satisfaction', with the poetry 'gain[ing] in power and impressiveness', he dismisses the prospect of performance: 'it is, of course, not to be thought of that Shakspeare's [*sic*] plays should now be publicly read or performed in this pronunciation'. In a period when a carefully articulated RP (often satirised in *Punch* magazine for its exaggerated sound) was considered the only acceptable accent for serious stage drama, it is perhaps not surprising to see him write (1871: 984):

As essentially our household poet, Shakspeare will, and must, in each age of the English language, be read and spoken in the current pronunciation of the time [he is thinking of Victorian RP], and any marked departure from it (except

occasional and familiar “resolutions”, sounding the final *-ed*, and shifting the position of the accent, which are accepted archaisms consecrated by usage,) would withdraw the attention of a mixed audience or of the habitual reader from the thought to the word, would cross old associations, would jar upon cherished memories, and would be therefore generally unacceptable.

It would be some time before these attitudes modified. Academics such as Henry Sweet and Daniel Jones helped pave the way by incorporating readings from Shakespeare (and other writers) into their lectures, and Jones went so far as to put on a public performance at University College London in 1909 of ‘Scenes from Shakespeare in the original pronunciation’, in which he himself played Prospero and Andrew Aguecheek. ‘The effect of the old pronunciation on the ear was very pleasing’, wrote a reviewer in *The Observer* (4 July). Some years later, F. G. Blandford published a booklet transcribing a scene from *Twelfth Night* into OP for the Festival Theatre Company in Cambridge (Blandford 1927), and this and other material was used several times. In the 1930s, the BBC took an interest, beginning with ‘London Calling – 1600’ in 1936, an hour-long selection of extracts from plays and poems, repeated the following year; and a decade later Jones trained a small company to present a programme in 1949 as ‘The Elizabethan Tongue: passages from the plays of Shakespeare in their original pronunciation’. In 1952 there was a production of *Julius Caesar* by the Marlowe Society in Cambridge, directed by John Barton, and the following year a production of *Macbeth*, directed by Joan Swinstead and starring Bernard Miles, at the new Mermaid Theatre in London. In the United States, Helge Kökeritz advised on a production of *The Merry Wives of Windsor* at the Yale School of Drama in 1954. The critical reaction was mixed, and in an era when RP continued to dominate in Shakespearean performance, interest waned until the Globe took up the challenge in 2004. Academic interest in theatrical applications also diminished, largely as a result of the increasingly sophisticated approaches to English historical phonology (such as Lass 1999), which brought to light a more complex soundscape in the Elizabethan period than was ever anticipated by the early scholars.

8.4 THE CHALLENGE OF OP: AN ILLUSTRATION

In all of this, we must disregard any notion of authenticity – a term I never use in relation to OP, for much the same reasons as it is avoided by

Shakespeare's Globe. It is not possible to refer to attending the Globe as an authentic experience when there are aircraft flying overhead, optional cushions and rainhats, and modern plumbing. In a similar way, OP can never be authentic as we may not have the same 'auditory mindset' as Elizabethans (differing in our view of how close two vowel values have to be in order to be considered a rhyme), and there are features of pronunciation that we can never replicate, such as intonation and tone of voice. While there are grounds for thinking that intonation patterns have little changed in the past 250 years, judging by the examples used as illustration in Joshua Steele's *Melody and Measure of Speech* (1775), using a musical stave to illustrate what today we would call tones and tone units, we have no systematic prosodic record for any period in the language before the arrival of twentieth-century phonetics, and it is always possible that there were patterns in Elizabethan intonation that have since been lost. The occasional allusions suggest otherwise: John Hart, for example, in his *Orthographie* (1569) describes *what*-questions as beginning 'sharp, and so falleth lower, according to the length of the sentence', which is very close to present-day works that contrast the intonation of *yes/no* questions and those beginning with a question-word. But the general point remains: when listening to OP, we hear a modern prosody superimposed onto an older segmental sound system.

I view any reconstructed sound system, in the absence of clear descriptive data, as plausible rather than authentic. The important thing, in the applied domain, is that there should be some evidence for the existence of the chosen sounds at the time, even though the choices made might not be those in commonest use. There are various competing considerations when there are alternative pronunciations. A theatre company might want the OP to be closer to modern English, for certain words, to aid intelligibility. It might wish to go in the opposite direction, to choose the less familiar alternatives – a view taken by director Tim Carroll in his 2004 *Romeo* production, on the grounds that an audience coming to hear an OP performance 'need to be given their money's worth'. A choice might be made on the grounds that it is dramatically or aesthetically more effective. Much will depend on the abilities of the company. A case in point is /r/, which is mentioned by some Elizabethans (such as Jonson below) as being trilled, using such terms as 'trembling', 'quavering', and 'jarring'. The articulation is referred to regularly throughout the period, and into the eighteenth century, before it seems to have died out other than in some regional accents.

The tongue-tip trill is a sound that many people have difficulty in reproducing; some find it impossible. Actors are no different. So what should an

OP consultant do, faced with a cast most of whom are unable to reproduce the sound? This was exactly the situation I found myself in in 2004. Fortunately, some contemporary descriptions hint at other kinds of /r/ articulation present in the speech of the time, but it can be quite a challenge establishing what the alternatives are. As an illustration, here is Ben Jonson – whom I often refer to in rehearsals as he is well known to actors – making the following observation about R in the introduction to his *English Grammar* (Gifford 1816: 281):

Is the dog's letter, and hurreth in the sound; the tongue striking the inner palate, with a trembling about the teeth. It is sounded firm in the beginning of the words, and more *liquid* in the middle and ends; as in *rarer*, *riper*. And so in the Latin.

The original manuscript was destroyed by fire in his home in 1623. It is unclear when he rewrote it, with some arguing for an early date of composition, others later, pending its eventual publication in the second folio in 1640–1641. I follow Britton (2002) and Donaldson (2011: 369) in going for the earlier date. Certainly, if an ongoing project of mine were destroyed by fire, I would want to begin rewriting it as soon as possible while it was reasonably fresh in my memory. So, I would say his observations are relevant for the earlier period in which Shakespeare was working.

He accompanies his English text with an array of notes showing his wide reading in Latin authors. They clearly influenced his phrasing, but at the same time they display a judicious selectivity. The first part of his description of /r/ alludes to a Latin tradition which refers to it as 'the dog's letter' (*littera canina*). His reference is to Persius, citing his first satire, who in turn seems to have been influenced by Lucilius (Book 1.22), who had described it as the sound of 'a growling bitch that a man pronounces as clearly as he can' (*Irritata canis quod homo quam planius dicat*). Its trilled character he takes from Terentianus Maurus, *De Litteris De syllabis De metris* (l. 238), who writes: *vibrat tremulis ictibus* ('vibrates from trembling strokes'), and it is this phrasing that Jonson includes. An additional sentence is from Martianus Capella, who gives a series of succinct one-line descriptions of each letter, and says of R, *spiritum lingua crispante corraditur*. The translation is uncertain, but the intent is clear: 'the tongue brings (or scrapes) together the air with curling (or trembling)'. That is the extent of Jonson's acknowledgement to Roman authors. The second part of his description seems to be his, and the interesting question is what he meant by the contrast between *firm* and

liquid. One interpretation is a less prominent trill; another, more likely in my view, is that the trill is replaced by a different /r/ articulation – a fricative (if we focus on scraping) or retroflex (if we focus on curling), or perhaps a tap or approximant (as in Present-Day English). It might also have been the case that the trilled /r/ was restricted to certain positions within a word. Kemp (1972), for example, in his commentary on John Wallis's *Grammatica Linguae Anglicanae* (1653: 183), suggests that 'the trill was probably still widely used in an educated accent intervocally, but fricative *r* was almost certainly common in other positions, even though it is not described by major sources'. Different linguists will take their own views on this, but from an applied angle, the various options (trill, retroflex, fricative, tap, approximant) need to be made available to any director or performer.

In a phonological transcription, the phonetic detail can be side-stepped. A transcription using the symbol /r/ could be used throughout, giving no hint as to the phonetic nature of the phoneme. Alternatively, if the teacher wished to draw attention to the fact that Shakespearean OP had a postvocalic /r/ whereas RP does not, a different symbol might be used, and this is the practice I adopted in my transcriptions, where we find *rider*, for example, shown as /rəɪdɪɹ/. The phonetic value to be given to the final /r/ would then be a matter of choice. A retroflex articulation has been the one most widely chosen by companies, but if any member of a cast was able to do a lingual trill, and decided it suited his character, I would applaud it.

8.5 NEW APPROACHES TO OP

Although most recent interest in OP has focused on the Elizabethan era, the growing availability of phonological data on other periods has motivated performances related to personalities from those times. Two projects are illustrative, each characterised by inter-disciplinary collaboration and the use of digital technology to place the reconstructed accents within a historically realistic physical and social matrix. One is later, helping to bridge the gap between Elizabethan English and the present day; the other is earlier, contributing to the neglected period – of nearly 200 years – between the time of Shakespeare and that of Chaucer.

8.5.1 John Keats

Keats died on February 23rd 1821, and to mark the 200th anniversary of his death, the Keats–Shelley Memorial Association commissioned the Institute for Digital Archaeology in Oxford to provide a virtual reconstruction of him reading one of his poems, ‘Bright star’. Linguists collaborated with social historians and digital specialists, who created a 3D model of the house in Rome where Keats died, as well as a virtual reality persona, based on scans of contemporary sources including portraits and death masks. The performance in OP was presented on the anniversary in a webinar, voiced by an actor using a reconstruction by Ranjan Sen of the University of Sheffield. The approach operated within the perspective provided by the Eighteenth-Century English Phonology (ECEP) Database (Beal et al. 2015), further informed by an awareness of Keats’s London background and the nature of his rhymes. As in the earlier period, when writers (and sometimes characters) remarked on the aptness of a rhyme – for example, Benedick (in *Much Ado About Nothing* 5.2.36) complains that he ‘can find out no rhyme to lady but baby, an innocent rhyme’, and concludes that he ‘was not born under a rhyming planet’ – many of Keats’s idiosyncratic rhymes evoked contemporary comment. *Lady/baby* would not have bothered Keats, who frequently used half-rhymes and eye rhymes, such as *muse/prison-house* and *bliss/is* (in ‘Lamia’) – a practice that offended some of his contemporaries, but which gave rise to metalinguistic observations that can be helpful to the historical phonologist. One critic, writing for *Blackwood’s Magazine* in 1817, dismissed rhymes such as *thorns / fawns* as ‘Cockney rhymes’, a label that tells us more about the way Keats’s own accent was being perceived than about the rhymes themselves (Lockhart 1818: 520).

An earlier event took place at the University of Sheffield in 2017, to mark the launch of the ECEP project, when an extract from Act 3 from Oliver Goldsmith’s *She Stoops to Conquer* (1773) was performed in OP by Joan Beal and Ranjan Sen. What made this event distinctive was its focus on the sociolinguistic contrast between a young gentleman (Marlow) and a woman (Miss Hardcastle), who is masquerading as a barmaid, and who claims to be able to speak in the style associated with that social class. Marlow’s upper-class accent was based on the usages recommended in William Kenrick’s *New Dictionary of the English Language* (1773), published in the same year, where (as was usual in the pronouncing dictionaries of the period) a distinction is drawn between ‘polite’ and ‘vulgar’ pronunciations.

Miss Hardcastle's lower-class accent was based on the vulgar variants as found in the dictionaries included in the ECEP database, such as the use of initial /h/ in ways that would be condemned by upper-class speakers. In a social world where politeness and etiquette were highly valued, great reliance was placed on the guidance provided by the many published pronouncing dictionaries – a situation which makes OP reconstructions of the eighteenth and nineteenth centuries more robust, bridging the gap between the more speculative reconstructions of earlier centuries and the arrival of the first speech recordings in the 1860s.

8.5.2 Richard III

The discovery in 2012 of the skeleton of King Richard III (1452–1485), buried within the site of the former Grey Friars Priory in Leicester, has opened up a new direction in OP in which phonological deduction is complemented by the possibility of a limited reconstruction of voice quality. Commissioned by the Richard III Society, a team at the University of Dundee, led by Caroline Wilkinson, created a cranio-facial reconstruction from a 3D digital model of the skull derived from the computed tomography scans recorded at Leicester Royal Infirmary (Wilkinson 2013). This identified several features that could have affected his voice quality. The skull suggested a male of slender build with mild brow ridges, a square jaw-line, a wide palate, angular orbits, and an upright profile. The lips were determined as thin with down-turned corners, a wide philtrum, and a slightly more prominent lower lip than upper lip. A jaw with a slight forward protrusion would have introduced a degree of limitation in how far Richard opened his mouth while speaking. A tense jaw position could also have affected the direction of airflow from the lungs, so that he may have spoken with a degree of nasal resonance. A sideways curvature of his spine (scoliosis) might well have affected his voice quality when speaking at length, making his speech breathier and more effortful. His slight build suggests a softer vocal resonance – though common experience shows that there is no necessary correlation between body size and voice quality.

The tentative modal verbs in the last paragraph underline the speculative character of the phonetic exercise; and a similar tentativeness surrounds Richard's phonology. While a great deal is known about the phonological systems of Middle and Early Modern English, there is much less certainty

about the rate of transition between the two. Richard lived in a time of significant phonological change, with the Great Vowel Shift in full flow, and it is unknowable whether his accent would have been influenced more by the older generation who brought him up or by the accents of his peer groups. The plural is important. Richard spent much of his childhood in Yorkshire, his adolescence in Warwickshire, and his later life in London, with other travels in between. A mixed accent is a likely outcome, or he may have been bidialectal. An analysis of the spellings in the letters known to have been written by Richard may provide relevant evidence (Morley 2015), but as things stand, performances which attempt to portray Richard's voice are likely to differ greatly, depending on the weight speakers attach to these variables.

8.6 THE TENSION BETWEEN THEORY AND PRACTICE

These examples illustrate the challenge that faces anyone trying to reconstruct an OP or to provide materials to help people learn it. Several other parts of the sound system present similar issues to the one illustrated by /r/ in Section 8.4, such as whether to keep separate or merge the contrast illustrated by *see* and *sea*, or whether to use a rounded or an unrounded vowel in words like *cut*. The period around 1600 also seems to have been one of relatively rapid pronunciation change, with important social differences – something evidently noted by Shakespeare himself, when Tybalt is described as one of the ‘new tuners of accent’ (*Romeo and Juliet*, 2.4.29). Any of the well-recognised issues in the phonology of the period, as described in other chapters, present applied linguists in a theatrical or musical setting with alternatives of this kind, requiring sometimes uncomfortable decisions in order to arrive at a coherent system that is learnable and aesthetically acceptable. There is an inescapable tension between linguistics and applied linguistics, in that the simplification and selectivity that has to be introduced to make an approach usable by non-linguists can receive criticism from researchers who have taken pains to acknowledge the complexities and uncertainties within their descriptive statements.

It is a tension that affects practitioners too, who can find themselves being pulled in opposite directions. On the one hand, they want an OP that brings

them as close as possible to the speech patterns that Shakespeare, for example, would have heard around him – that is, after all, the point of the exercise; on the other hand, they want an OP that is dramatically effective, pedagogically practicable, and audience-aware. For the most part there is no conflict; but every so often an issue arises where one has to ‘take a view’ – such as in the choice of /r/ articulation, where a simple matter such as the (in)ability to produce a phonetic distinction can influence the decision made by a director or actor. At such moments, it is important for phonologists to base their advice on the facts, insofar as they are known. There needs to be some evidence on the table for each of the alternatives, or, at the very least, there should be no counter-evidence to exclude them. Any linguist presenting OP in applied contexts needs to make clear what the alternatives are, so that users can make an informed choice – which will be made partly on non-linguistic grounds. The goal of replicating a Shakespearean auditory experience is indeed closer as a result of the research and experience that informs the modern OP movement, but it is still some way off, and compromises will always be needed.

These remarks raise issues that need in-depth discussion, of the kind that is routine in other domains of applied linguistics such as English language teaching or speech pathology. A critique of any one phonological decision, if it is to be helpful, needs to be accompanied by an exposition of the alternative, and an exploration of the way this alternative fits in to the sound system as a whole. That is standard procedure in theoretical phonology. Additionally, though, the implications of the new decision need to be thought through in terms of the criteria used by the practitioners. An example is the issue of rounding in words like *cut*. There is evidence of both unrounded and rounded vowels during the Elizabethan period. Presenting a speech in alternative versions – one with the vowel rounded, the other with it unrounded – allows practitioners to make a judgement about the auditory effect on themselves and (by implication) on the audience. In one such discussion, at the Globe, the rounded vowel was felt to be so ‘northern’, to modern British ears, that the cast felt it would distract from the content; in another British setting, the opposite conclusion was reached; and in an American rehearsal room, where there was no instinct for the north/south divide in the use of this feature in England, the choice was made on purely phonaesthetic grounds. Genre considerations can enter in, with one variant welcomed in comedy, but not in tragedy. Other solutions include a decision to have one character, or set of characters, to use one variant, and the rest to use the other, as in the example earlier of *h*-dropping in *A Midsummer Night’s Dream*. Decisions of this kind are of course

routine in the accent choices made in modern productions, as when, in Greg Doran's 2005 production of *Dream* for the Royal Shakespeare Company, the mechanicals were given a broad (present-day) Birmingham accent.

More fundamentally, there have been productions where the cast is split in two, with just one character, or a group of characters, using OP. Examples include Gower in *Pericles*, who presents the play as a medieval chorus; Feste in *Twelfth Night*; and Edgar as Poor Tom in *King Lear*. Choices relating to the development of a single character also enter in. When Ralph Fiennes was performing the lead in *Richard III* at the Donmar in London in 2016, he experimented with using OP just for his final scene, when he felt Richard needed to do something vocally different faced with impending defeat. Similarly, when Ben Crystal played Timon in the production of *Timon of Athens* for the series 'The Show Must Go Online', presented during the pandemic in 2020, he switched from RP into OP for emotionally heightened moments, and for some of the speeches in the second half of the play, when he becomes a hermit in a cave outside the city.

Accent dramaturgy is routine in theatre, but is a long way from historical phonology as conventionally practised. I hope in this chapter to have suggested some directions which would enable the gap between the two domains to be bridged. Little discussion has so far taken place, however, perhaps because few phonologists have had a sufficiently serious interest in the theatre or musical worlds or – more likely – have had the opportunity to explore them. Becoming involved with an artistic company is extremely time-consuming, and it can be difficult to fit the frequent rehearsal demands in with daily academic commitments. But in times when efforts towards public engagement are seen to be a growing priority in academic circles, developing such relationships is likely to be far more than personally rewarding.

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