1. Introduction

To a linguist nurtured on predominantly twentieth-century phonetic theories and practices, the appearance of the phonetic notation Murray devised for the *New English Dictionary (NED)* in the early 1880s might seem unusual, both in terms of the choice of symbols and also in the occasional narrowness of the transcription: for example, (pό-tlēs) for *thoughtless* and (yūn̄əi-t) for *unite*. Indeed, a closer examination of not only the entire inventory of symbols and diacritics but also of the technical phonetic nomenclature reveals considerable divergences from twentieth-century as well as certain other nineteenth-century practices. In many cases, however, there are no difficulties in interpreting the notation: for example, (p k η e). A number of items will not seem unfamiliar to anyone conversant with the notational conventions of philology or generative phonology: for example, (ā) and (ō). And, particularly in an American context, the use of (y) for [J] would pass more or less unnoticed.

Having said this, however, there still remains a residue of items which are liable to be misinterpreted – or not interpreted at all. Firstly, Murray italicizes certain vowel symbols, but nowhere in the *Dictionary* does he provide any explanation for the use of italics. (They are certainly not to be equated with optional articulatory segments, as in Jones’ *English Pronouncing Dictionary (EPD)*.) Secondly, he sets up three categories of vowel, without indicating adequately what they refer to: ‘ordinary’ (also called ‘short’), ‘long’ and ‘obscure’. The second vowel in *ever* is ‘ordinary’, whereas the second vowel in *datum* is ‘obscure’; the /æ/ and /ɛ/ in *here* and *there* are ‘long’, but the /au/ in *eye* is ‘ordinary’. Thirdly, certain diacritics are not to be interpreted
according to present-day IPA conventions: for example, (,) indicates a syllable-boundary, not syllabicity; and a raised (˘) above (n) indicates nasalization of the previous vowel, not palatalization of the consonant itself. Finally, one finds a considerable amount of phonetic terminology in both the section of the Introduction to the Dictionary devoted to pronunciation as well as in the ‘Key to the Pronunciation’, which might easily be regarded as either simply nineteenth-century in character (even though this terminology has been retained, virtually unchanged, in the two Supplements of 1933 and 1972), or else the result of an inaccurate analysis by Murray of English sounds. Thus, one notes ‘voice-glide’, ‘mid-mixed vowel’, ‘consonantal diphthong’, ‘generally recognised diphthong’, ‘doubtful or imperfect diphthong’, ‘non-recognised vowel elements’ and ‘medial or doubtful length’. In Supplement 2, the term ‘semi-consonant’ makes its appearance. In explanation, the only phonetic authority to which Murray refers as his source is Melville Bell’s Visible Speech of 1867. Yet this by itself does not elucidate all of the difficulties: one has to consult Ellis’ Essentials of Phonetics (1848) to find some of the answers.

Altogether in the Dictionary, Murray employs 108 symbols and diacritics, most of which are used for notating English – the others are used, when appropriate, for the forty-one other languages, mainly Indo-European, to which he refers. Could the model accent of English on which the pronunciation is based have determined in some way such a large number? The problem, however, is knowing what the accent was. In his Introduction, Murray describes it variously, without elaboration, as ‘the actual living form or forms of a word’, ‘current pronunciation’, and ‘modern English speech’.2 In Supplement 2, Burchfield is more specific: ‘the educated speech of southern England (the so-called ‘Received Standard’).3 Both Murray’s and Burchfield’s descriptive labels suggest that RP was (and still is) the model. If this is so, one must accept that the accent is rhotic (cf. the transcription of ARMOUR with medial and final (I)4), that FIR and CURL contain different vowels (Murray writes them (5) and (B) respectively), that the vowels of ALMS and LAST are different – (a) and (a) – and that the vowels of NOT and WATCH are different – (9) and (9).

One might reasonably say, with reference to the distinction
between the vowels of not and watch, that Murray was deliberately using a narrow phonetic transcription at this point, with the aim of indicating phonetic differences which are dependent on contextual factors. Indeed, support for this view would seem to be found in the somewhat intricate notation he uses for unaccented vowels: vanity with \( \text{(i)} \), remain with \( \text{(i)} \), parody with \( \text{(i)} \), added with \( \text{(e)} \), and react with \( \text{(i)} \). On the other hand, he describes the first four of these /ʌ/ vowels as being 'obscure', whilst the last one is merely 'ordinary' – all of which would seem to make an unequivocal interpretation that much more difficult to achieve. Similarly, amoeba has an initial \( \text{(ä)} \), but accept an initial \( \text{(æ)} \).

On the evidence presented so far, there are strong grounds for unease, both about the phonetic analysis of the data and also the form of English that he was actually notating. It may, then, be significant that no work on English pronunciation since Murray's day, excluding the Supplements, has used his notational system. And even in his day, opinions about its usefulness were divided. Yet Murray was neither a novice in the field of phonetics and phonetic notations, nor was his notation the result of any superficial or unimaginative amalgam of existing notational conventions. To understand fully the raison d'être of his notation, one must go beyond the Introduction to the Dictionary and the sections introductory to the individual letters of the alphabet to the extant source-materials, which reveal the gradual development of his ideas. What follows below, then, is an exegesis of the notation, which aims to illustrate not only the slow and often uncertain unfolding of Murray's views but also something of the historical background to phonetic practices a century and more ago. It will be shown that Murray's notation can be justified in the context of phonetic procedures of his time: also that, in some respects, his achievement went beyond anything his contemporaries (and even his successors in lexicographical phonetics) had accomplished.

2. The plan for phonetics in the Dictionary

The decision to mark pronunciation in the Dictionary dates not from Murray's involvement with the project, but appears to have been reached many years previously in the discussions the Society
had had about how a new dictionary of English could be compiled. Trench, in his paper to the Society in 1857 on 'Some deficiencies in our English dictionaries', had never mentioned the topic. Nor was it mentioned in the official Proposal for the Publication of a New English Dictionary by the Philological Society of 1859. It first appears formally, almost as though by accident, in the Canones Lexicographi, the set of instructions drawn up by the Society to inform members of the proposed contents of the Dictionary and to give guidance to readers on how words were to be 'collected': 'The Pronunciation and Accent shall be marked; and any changes which the former have undergone shall be briefly pointed out'.

The credit for establishing in the first place the need for the proposed Dictionary to pay some heed to phonetic matters can be attributed to Derwent Coleridge (one of Samuel Taylor Coleridge's children, but no relation of Herbert Coleridge, the Dictionary's first editor). In a paper read to the Society in 1860, he expressed the view that there would be 'some difficulties' in tackling the orthoepical part of the Dictionary (which, in turn, suggests that the question of phonetics had already been broached), but that 'The standard of pronunciation should be fixed by a comparison with some foreign standard or standards . . . [that] varying pronunciations should be given, and where the preference is not decided by custom, then, and then only, it may be given in favour of the spelling or etymology'. Clearly, his idea was that some form of standard pronunciation should be notated. His views on phonetics in the Dictionary must have gained acceptance amongst members of the Society, because during the planning stages for the Concise Dictionary, it was agreed that the pronunciation of each individual word should be included.

The intention to include phonetics in the Dictionary may have been aided, perhaps even kept alive, during the 1860s and early 1870s, by four important papers on phonetics and phonetic notation that were read to the Society by Derwent Coleridge, Ellis and Melville Bell. In the mid-1870s, when the Society was trying to formalize its precise involvement with the Dictionary project, Sweet's papers to the Society on phonetic topics may well have made more acceptable the principle of including phonetic notation.
Murray, for his part, was convinced that there existed a sufficiently solid basis to contemporary phonetic practices to make the marking of the pronunciation a realistic undertaking. In a reply to Price, the Secretary of the Clarendon Press, who had expressed reservations about marking pronunciations at all, he was able to assure him that this could be accomplished 'in some simple and intelligible form', that the notation would be 'permanently intelligible', and that a Key would be provided to explain the values of the symbols and diacritics. He could, after all, speak with some confidence, for he had had experience of marking pronunciation in the proposed Macmillan's Dictionary, which he had been involved with since the autumn of 1876. Earlier still, he had devised a notation for Jamieson's Etymological Dictionary of the Scottish Language.

Gradually, however, from 1879 onwards, his optimistic faith in the method he would employ was undermined, as he came to appreciate the formidable difficulties involved in treating a whole range of English pronunciations in a systematic fashion. There was relatively little difficulty in describing an individual accent, but devising a means of notating scales of variability across accents was quite a different matter. None of his predecessors or contemporaries had attempted it in the way he was to; and even he would eventually achieve only an approximation to it.

3. The accent(s) to be notated

The question of which accent of English is represented in the Dictionary has already been raised, but scarcely answered. Murray made it clear in his Introduction that the vocabulary was to be that of 'English-speaking men', thereby automatically ruling out the possibility of words which were restricted to use in, for example, Scots being included. Yet a clear delimitation of English and Scots vocabularies should not have extended a priori to English and Scottish accents of English. Given the wide geographical distribution of accents of English throughout the world at the time, Murray might, logically, have taken into consideration not only British Insular accents but also those of North America, South Africa and Australasia, for example. Nevertheless, there are no
grounds for believing that he ever contemplated notating anything other than an accent or accents of mainland British English.

Nor is there any evidence to suggest that he ever considered notating a notional or fictitious ‘standard’ accent of English. Unlike many of his middle- and upper-class contemporaries in England at this time (and Derwent Coleridge was one of them), he never countenanced the idea of imposing an elocutionary or orthoepical form of English on the population as a whole. His attitude towards accents was, with certain exceptions connected with specialist registers of vocabulary, that of the descriptivist.¹⁴ Not surprisingly, though, he received at least one impassioned plea from an academic, Edward Nicholson, asking that the pronunciation in the Dictionary should ‘arrest the change’ and the ‘progress of corruption’ allegedly underway in nineteenth-century English, by prescribing ‘purer pronunciations’ and establishing ‘correctness of pronunciation’.¹⁵ He was reminded, too, by his Irish phonetician colleague, James Lecky, of the need to notate ‘real, living speech’, not the ‘formal, fictitious or antiquated orthoepy’ of earlier dictionaries.¹⁶ (This remark should be interpreted as an incidental statement of Lecky’s own beliefs, rather than as a direct response to any prescriptivist attitude on Murray’s part.) In any case, Murray was only too well aware that the pronunciations laid down by such orthoepists as Sheridan, Walker and Smart were ‘often obsolete in actual London usage’.¹⁷

There can be no doubt either that he never once considered indicating anything other than educated pronunciations of English. For reasons connected with the scholarly nature of the Dictionary and the social class structure of Victorian England, pronunciations such as Cockney or working-class Manchester were excluded. In a sense, this was a perfectly defensible procedure, since the lexical coverage of English in the Dictionary was restricted to particular varieties of the language, by the social environment in which literary English had evolved over the centuries, as well as by the general outlook of the many readers who collected the words for inclusion. Nevertheless, the fact that he was restricted to educated speech ought not to have led Murray to think in terms of only one particular accent of English. Lecky recommended that he should include two regionally distinct forms:
what he called ‘northern’ and ‘southern’ English, maintaining (without, unfortunately, presenting any reasons for his opinion) that ‘educated pronunciation divides itself into two well-marked dialects, the northern and the southern’. By ‘northern’ he undoubtedly meant a Lowland Scottish accent, since he remarked that Murray would be able to provide the ‘forms’ of that accent himself.\textsuperscript{18} But Murray does not appear ever to have consciously pursued this suggestion of ‘northern’ and ‘southern’ accents, however much transcriptions in the \textit{Dictionary} such as \textit{RAIN} (\textit{rēn}) and \textit{BOWL} (\textit{bōl}), with their diphthongal variants, might be read as representing both Scottish and Southern English forms.

Tantalizingly, Murray’s only other reference to the accents in the \textit{Dictionary} is to be found in a letter to Hallam, in which he states that what he is indicating is ‘the general outline of recognised pronunciation’, or ‘Pronunciation in the broad sense’.\textsuperscript{19} Even this is ambiguous. Could ‘recognised’ be a slip for ‘received’? And why only a ‘general outline’? On the available evidence, both published and unpublished, there is no means of determining precisely how many and which accents of English are subsumed in the notation. At its most imposing, Murray’s comment to Hallam could be read as referring to those features which characterize all educated accents of English. Yet such an interpretation is clearly at variance with what Murray must have known about the phonological and phonetic characteristics of nineteenth-century English, and also with the types of phonetic distinction that he draws in his inventory of symbols.

4. \textit{RP as the model accent?}

At this stage one might well imagine that the solution to Murray’s problems would have lain in specifying RP as the model accent, especially in view of the natural connection between RP and the intellectual and cultural \textit{milieu} in which he was working. Such a conclusion is, however, an erroneous one, for two reasons. Firstly, because the association of ‘educated English’ with RP is very much a product of twentieth-century attitudes towards language. And secondly because in Murray’s day the term \textit{r.p.} (this was Ellis’s abbreviation; I retain it here to distinguish it from Jones’s RP)
referred to a form of speech that was far less homogeneous than RP as described by Jones. In 1869, Ellis had spelt out the contexts in which r.p. could be heard: 'the metropolis, the court, the pulpit and the bar'. To this list he added, in 1874, 'the stage, the universities, parliament, the lecture room, the hustings and public meetings'.

His transcriptions in the 1874 volume of *Early English Pronunciation* of r.p. speakers reveal the wide range of variation to be heard within the accent (and Melville Bell's modified, but still rhotic, Scottish pronunciation was just one example he quoted). Yet despite his use of the term in print, on at least one occasion, a private letter to Murray, he set down what may have been his real feelings about r.p.: 'received speech is altogether a made language, not a natural growth, constantly made in every individual even now'. Murray may well have taken this opinion to heart, particularly since it was written at a time when he was under severe pressure to finalize his notational system, and decided therefore not to try to notate an accent whose very basis appeared to be suspect.

Sweet was another phonetician whose views Murray sought on the question of which accent to notate. He thought that, ideally, Murray should list 'all existing educated pronunciations', but this would obviously be impossible in view of the considerable ignorance that existed at the time about the actual state of English pronunciation: before Murray could even start work on the notation for the *Dictionary*, he would have to undertake a detailed investigation into the many social and stylistic variables at work in English speech. This immediately led Murray to invite Sweet to take over the work of developing a notation and transcribing the pronunciation, but, not surprisingly, Sweet refused, again quoting the lack of any reliable, objective information about current speech-patterns. On what grounds, he asked, could Murray reasonably establish a 'standard pronunciation' of unfamiliar technical and obsolete words and phrases — words such as QUOTH, for example? In Sweet's opinion and that of certain other members of the Society, the plan to mark pronunciation in the *Dictionary* should be abandoned. Murray's weary, despondent and cool response was to ask Sweet whether there was any need to seek perfection in the 'phonology', when defects in the 'sematology'
and 'etymology' were being condoned. In reply, and by way of compromise, Sweet suggested that only the stress-accent of words should be marked, but in any 'irregular or doubtful words' the vowel could be notated: thus, 'discolour (o=ə)', 'instead (i=ə)'. Where necessary, special notes could be added to an entry: for example, to explain the change from (o) to (w) in the word.ONE. Needless to say, Murray did not follow any of Sweet's suggestions.

5. The problems of variety

From the foregoing, it is evident that Murray was unwilling to set up any one idiolect or accent of educated English as his model. He was compelled, therefore, to find an appropriate means of categorizing the wide range of phonetic variation that could be heard in English speech. In consequence, he was soon caught unwittingly in a phonological 'trap', from which, at that time, there was no obvious means of escape. None of the phoneticians of his day had even begun to think about how accents of a language could be systematically compared: hence there was no ready-made procedure for him to follow in determining the patterns in the 'great variety of pronunciations'. Some years later, Jones was able to avoid this trap by the neat expedient of specifying one particular accent as the model in the EPD; but this simply side-stepped the central question of how to handle accent-variation. With hindsight, one can see that Murray's mistake was to believe that it was possible to accommodate a wide range of accents, expressed in purely phonetic terms, within a single notational system, without first setting up a 'base-form' to which all the accents could be related by means of a series of phonological rules. (Whether this would ever be feasible in any sort of dictionary has still to be tested!) In a sense, then, Murray was being scrupulously accurate and true to his descriptivist instincts in not wishing to give pride of place in his system to any one accent of educated English. Nevertheless, this attitude was to lead, inevitably, to considerable difficulties.

It is worth remembering, in any case, that with nearly 35 million people resident in the British Isles in 1881, the task Sweet envisaged as being a prerequisite for any statement about the
characteristics of English pronunciation was thoroughly unrealistic. Even if Murray had actually wanted to mount some sort of survey of educated speech, the number of people whose speech he would have had to sample would have been far beyond the powers of any one individual. In England and Wales alone, in 1881, there were well over half a million members of the 'Professional Classes' (Registrar-General's Class I). Of these, more than 170,000 were 'Teachers, Professors & Lecturers'. Another 8,000 were engaged in 'Literary & Scientific Work'. Furthermore, Murray did not have at his disposal any technical devices for making recordings of speech (Edison's phonograph was still in its infancy, and Poulsen was not to develop the idea of the tape-recorder, let alone the actual piece of equipment, until the late 1880s). Unless Murray had personally heard a person's speech, or could rely on descriptions provided by fellow-phoneticians, he was unable to begin to generalize about what constituted 'educated speech'. When he moved to Oxford to continue work on the Dictionary, he seems to have relied to a great extent on the views of Herbert Warren, the President of Magdalen College, as to what the educated pronunciation of certain words was. Whether the NED contains any specific examples of personal pronunciations of Warren's is impossible to say. It may be of some significance, though, that he hailed from Bristol, a rhotic area of England.

One form of variability that was to cause Murray considerable difficulties when devising the notation was unaccented vowels. For example, in the word BRIMSTONE he was aware of eight different versions of the unaccented vowel, in PROPOSE seven, and in the second vowel in ACONITE and ACOlyTE three. The initial vowel of AUTHORITY could be pronounced, he said, in six different ways. How was he to cope with such a wide range of variation? One solution he devised was to mark the vowel in such a way that it could be given a number of different phonetic values (see below). The other was, quite simply, to admit that his notation could not possibly take account of all the variants, and so to omit some of them altogether.

In the area of specialist vocabulary registers, his contacts with a number of scientists showed that variant pronunciations were rife. He claimed that for the word ACEDIAMINE '12 or 20 pronunciations
can be heard from as many professors'. To help solve his difficulty, he sought the opinion of Ellis, who, of course, was as much a scientist as a phonetician and philologist. In the circumstances, Ellis's reaction seemed to be the most realistic, and Murray appears to have heeded it: 'I'm obliged to give what I feel at a glance I should use because I think that such a first shot is likely to be more analogous', and 'since scientific words have no settled pronunciation I would lay down a consistent and thorough English one.'

Two other phoneticians put the results of their analyses of particular phonological points at Murray's disposal. Sweet, despite the differences that existed between him and Murray on the general management of pronunciation in the *Dictionary*, sent him detailed information about the pronunciation of word-initial orthographic *au* (as in *authority*, etc.). And Hallam, who had spent nearly forty years studying a small selection of phonological variants in English, forwarded a large bundle of papers on the use of /ʌ/ and /ə/ in unaccented position, in the hope that it would allow Murray to assess as objectively as possible which particular vowel should be notated.

6. *Stylistic factors*

So far, the question of variable pronunciations has been discussed solely in terms of differences between individual speakers or between two or more community-accents. Murray, however, recognized only too well that variation could be dependent on another factor – the style of speaking used at any one time by an individual. Initially, his thoughts on this centered on the differences that were caused by altering the tempo of an utterance, and at one point he had apparently considered giving two pronunciations for each word in the *Dictionary*, slow and rapid. Later, he concluded that five speech-styles (what he called 'varieties of pronunciation') existed in English. They were '1. muzical, or that adopted in singing, in which every unaccented vowel is uttered with the same clearness as an accented one, 2. rhetorical, 3. cultivated, 4. familiar, 5. vulgar.' Most of the older dictionaries of English, he said, used the 'muzical' style, whereas Sweet
notated almost the opposite in his works on phonetics, namely the 'familiar' style. All of which had led Murray to conclude that what he should indicate in the Dictionary was 'what cultivated Englishmen aimed at... [which] they actually produced in deliberate speech', rather than 'attempt to fotograf the slurred utterances of the average Londoner'. As a result, the unaccented vowels would be given their 'full "musical" value', but they would be transcribed in such a way that their pronunciation in 'ordinary "familiar" utterance' could be deduced. And so, in the Dictionary the so-called 'obscure' vowels are marked with a breve diacritic (') above the vowel symbol. This means that in the 'musical' style an (u), for example, is to be read as (u), and in the 'familiar' style as a vowel whose quality was anywhere between (u) and [3].

Murray's views on style-shifting were not accepted uncritically— at least not by Ellis and Sweet. They both thought the distinctions he had drawn were 'artificial', and Ellis was quite opposed to notating the 'musical' values of vowels, on the grounds that singers 'treat the vowels vilely'. Nevertheless, the other members of the Society supported Murray, and so his viewpoint prevailed.

7. The logic of the notation

It is now possible to understand exactly what Murray was trying to do in his notation. Firstly, he was attempting to take account of as broad a range of educated accents of English on the British mainland as possible. Secondly, he was allowing for style-shifting between the extremes of 'musical' and 'familiar' to be formally recognized. It would not seem unreasonable, therefore, to conclude that what he was evolving was a particular type of diaphonetic notation for educated varieties of English.

8. The phonetic theory

The phonetic theory that underlies the symbols and diacritics is set out variously in the Introduction to the NED and, more extensively, in the prefaces to both individual letters of the alphabet and also ch- and th-. The inventory of items remained virtually
unchanged during the forty-four years in which the Dictionary was in the process of being published, but, as time passed, a certain amount of inconsistency crept into the explanations given for certain symbols. Thus, in 1899, (k) was described as a 'back voiceless stop consonant', but ten years later (t) was a 'point-breath-stop'. Onions, in 1920, in his discussion of y, referred to 'voiced guttural or palatal stops', but described (z), not in the same conventions as a 'voiced alveolar fricative', but as a 'blade-open-voice consonant'. In 1884, Murray had described (b) as a 'sonant labial mute', but twenty years later, Bradley was defining (m) not as a 'labial nasal' but as a 'bilabial nasal consonant'. Despite these examples of changing nomenclature, the classificatory principles remained the same, namely the schema that Murray himself devised, based on the views of Ellis, Melville Bell and Sweet.

The space he devotes to the phonetic description of sounds shows that he intended that the Dictionary, in its phonetic aspects, should be of use (and value) not only to the educated layman with minimal acquaintance with phonetic matters, but also to those who were proficient in the subject. To accommodate the former category of reader, he sometimes uses longer-established terminology such as *tenuis*, *mute*, *surd* and *sonant*, and *hard and soft c*. Indeed, the arrangement of the subject-matter of articulatory description and classification under the heading of letters of the alphabet rather than specific categories of consonant and vowel is proof of his desire to integrate the discussion of phonetics with the rest of the Dictionary material in the most convenient way possible for the lay reader. For the phonetician, there are some useful asides on more specialized areas of concern, such as the forms of certain non-RP accents, and the phonetic and orthographic practices of Scots. Later, in 1908, Bradley was to draw attention to some of the finer points in the articulation of /s/ and /ʃ/. On the basis of the phonetic comments scattered through the work, it is possible to establish reasonably confidently the phonetic theory that Murray evolved. A little is said en passant about the organs of speech, but no attempt is made to describe the vocal tract in its entirety. To the lay person, terms like 'palate' and 'point of tongue' would have been self-explanatory; but the expression 'narrowing of the glottis' and the five terms associated
with states of the glottis (breath, voice, voiced, voiceless, unvoiced) may well not have been.

The terminology for places of articulation derives from the work of Ellis, Melville Bell and Sweet. Occasionally, for example in the description of (t), very precise distinctions are drawn – between 'dental', 'gingival' and 'alveolar'; but such precision contrasts awkwardly with the use of the terms 'reverted', 'retracted' and 'cerebral' (in the description of (r)), which are never explained. For manners of articulation, Murray drew heavily on the work of Sweet. Secondary articulations are rarely mentioned.

One particular expression deserves closer discussion, 'voice-glide' or 'simple voice', used, for example, in the notation of a word like bottle: (bɒtl). 'Voice-glide' is a term used by Bell (Murray seems to have been responsible for its synonym 'simple voice'; Bell also refers to it as 'voice-murmur'), and he defines it as a vowel sound, rounded or unrounded, used 'habitually in commencing or finishing other elements.' From his Visible Speech symbols for it, it would seem to be equivalent to IPA [ɔ] and [ɔ]. However, unlike Ellis and Murray, Bell did not consider that it was used between a stop and an immediately following homorganic nasal or lateral. Ellis and Murray thought that it was used there. So for them, the /dn/ and /dl/ sequences in words like midnight and bottle would not have nasal and lateral plosion respectively of the /d/.

On the other hand – and this is one reason why the term 'voice-glide' is now ambiguous – Bradley and Craigie (possibly with Murray's approval) use the (') diacritic expressly to mark syllabicity of nasals and laterals. For the description and classification of vowels, Murray and the later editors use Melville Bell's Visible Speech schema, with its thirty-six vowels. There are, however, a number of important differences between Bell's classification of certain English vowels and Murray's. (Whether they were both classifying the same sound cannot, of course, be said.) Thus, for Bell, the /e/ of ell is a primary vowel, whereas for Murray it is a wide. Bell's /ɔ:/ in all is primary and his /ɔ:/ in or is wide: Murray reverses the analysis. (The question of two /ɔ:/ vowels is dealt with below, § 11.) Whereas Bell treats the vowel in the terminations '-tion' and '-tious' as a
high-back-wide (equivalent to IPA [u]), Murray regards it as more open and front, a mid-mixed-wide, his symbol for it being (ə), equivalent to IPA [ə]. Lastly, Murray conflates the distinction between the vowels of ASK and PSALM: for him they are both (ã) –

### TABLE 1

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Notes: 1. Diphthongs (including [iu]- types) are classified according to the articulation of their first elements.
2. ‘Obscure’ vowels, marked [ ], are articulated at any point between the appropriate box and (depending on the lip-posture) [ə] or [ə].
or at least they can be. Bell, however, takes the former to be a mid-wide sound, the latter a low-wide.45

To interpret Murray's vowel symbols properly, a two-stage process is necessary. Firstly, the symbols have to be aligned with the Visible Speech categories; and, secondly, IPA equivalents must be derived for them. By using material in Murray's *Dialect of the Southern Counties of Scotland*, his Introduction to the *Dictionary*, the prefaces to individual letters of the alphabet and certain comparative data in works by Bell and Sweet,46 it is possible to 'reconstruct' the Visible Speech values of his symbols. This is what failed to appear in the *Dictionary* itself. The symbols are set out in Table 1.

From the Table, it is clear that the italicized vowels are all narrow. This point was never explained in the *Dictionary*, and it is only in the published minute of one of the Society's meetings that the distinction between italic and roman symbols was clarified.47

The process of assigning IPA values to Murray's symbols is not a straightforward one, and the results detailed below must be regarded as approximate. This is because Murray was utilizing a schema in which thirty-six vowels was the highest possible number that could be classified. With the Cardinal Vowel scheme, of course, considerably more than thirty-six can be realistically distinguished. A second factor which hinders an accurate translocation of Murray's symbols into IPA is his use of the wide/narrow (primary) distinction. The nearest one can reasonably come to this in IPA terms is to specify the narrow vowels as being more close, the wide vowels more open. Even so, given the differing criteria for establishing narrowness and closeness/openness, such a compromise is not likely to be completely accurate. Nevertheless, a proposed IPA interpretation of the symbols is given in Table 2.

The classification and terminology of diphthongs can only be described as confusing to a reader unversed in the work of Ellis, especially his *Essentials of Phonetics* (1848). In Table 3 the categories and terminology used by Murray have been set alongside Ellis's, to show as far as possible how Murray may have been using them. Still, it remains a mystery why he should have thought it useful to re-introduce some of Ellis's ideas, when Bell and Sweet
TABLE 2

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**Note:** Symbols in the form of, for example, \( u \rightarrow a \) indicate that the quality can be at any point between [u] and [a].

had discussed, in a most effective and convincing manner, simpler classificatory schemes. Murray provides no explanations of his terms, and, as can be seen from Table 3, considerable confusion is associated with his use of the words *imperfect* and *doubtful.*

9. A choice of notations

From the outset, Murray was faced with a choice: either he could use an existing notational system (with or without modifications), or he could devise one of his own, tailor-made for the needs of the Dictionary. Eventually he found himself compelled to adopt the latter course, although he did give serious attention to a number of notations already in use at the time. These were of two types: reformed spelling systems and phonetic notations proper.
A system of reformed spelling might seem a somewhat unusual proposition for him to have taken seriously, but at the time the whole question of changing the spelling of English was of considerable interest to the general public, and so a Dictionary notation of that format would not have been viewed as an unusual choice. In any case, many of the older dictionaries, especially the pronouncing dictionaries, had utilized the principle, often fairly effectively. (Nor should one overlook the fact that since Murray’s time the principle of respelling has been used to advantage in, for example, the COD.)

In Murray’s estimation, however, a system of reformed spelling was inappropriate for his purposes, mainly because no one particular system had established itself yet as the most acceptable version: if there could be agreement ‘upon one system of writing English words, there would be an obvious advantage in adopting this as a pronunciation Key in the Dictionary’, he told members of the Society. Still, during his first two years’ work on the Dictionary notation, he seriously attempted to work out a system that would serve the dual function of a reformed orthography and a phonetic notation. It was even pointed out to him by one of his ‘advisers’, Joseph Rundell, that a reformed orthography which was sanctioned by the Philological Society and the Clarendon Press would be a sufficient guarantee of the system’s quality and effectiveness as an instrument of instruction.

There were a number of phonetic notations that Murray considered using. Two of them were relatively minor ones, an unpublished system by a Canadian lawyer, Caleb P. Simpson, the other the system used by Isaac Pitman in his weekly Fonetik Journal. Neither met with his approval.

The major systems he considered (and subsequently rejected) were those devised by Ellis, Melville Bell and Sweet. Although Murray respected Ellis as a phonetician, he was out of sympathy with him when it came to phonetic notations, on account of ‘his hobby to invent systems and discard them’. For this reason, the man was ‘impractical and impracticable. The world must move without him and his crotchets’. His specific objection to Palaeotype was that it was ‘unsuited in many ways for Dictionary purposes’, in that it could not handle ‘Pronunciation . . . in the broad sense’. It was more efficient for the transcription of
idiolects. Furthermore, Ellis's use of italics for what he called 'later' sounds was inappropriate for Murray's purposes. The objection to Glossic was that the 'vowel sounds [were] on a Modern English basis': the Dictionary would be notating older as well as contemporary pronunciations.

Even though Bell's phonetic theory provides much of the frame of reference in the presentation and discussion of points of pronunciation in the Dictionary, Murray seems to have decided against using Visible Speech on the grounds that the general public would likely have found it visually off-putting as well as hopelessly intricate - despite, of course, the simple principles on which it was based. Sweet was undoubtedly right when he remarked that it was 'little known, except by name, outside a small circle of [Bell's] own pupils'.

The case for Sweet's Narrow Romic was argued in detail and with some passion by Lecky, primarily because 'as an instrument [it] is almost perfect'. It was easier than any other system 'to work with in phonetic study, easier for the printer to reproduce, easier for the public to understand'. Murray, on the other hand, objected that, like Palaeotype, it could not notate pronunciation 'in the broad sense'. In addition, Sweet's use of italics was in direct conflict with Murray's plan to use them for narrow vowels. Nevertheless, as will be shown below, Murray, in the process of developing his own system, came very close to choosing a mixture of features from both Palaeotype and Narrow Romic.

With hindsight, we can regret his decision not to use one of the Romic systems, especially since the IPA alphabet is partly modelled on Broad Romic. Had he done so, the notations in the Dictionary and in works using the IPA conventions would have been that much closer. Ironically, no later lexicographer or phonetician used the Dictionary notation: it was strictly an ad hoc construction, whereas hundreds of works have used what, from the mid 1890s onwards, became a reasonably standardized IPA system.

10. Stages in the development of the NED notation

Murray approached the question of developing his own phonetic notation with a certain amount of experience in the subject as well
as in working with various forms of notation generally. Two years after starting the study of phonetics with Melville Bell in 1857, he prepared a phonetic key for Jamieson’s *Etymological Dictionary.*60 Then, for ten years, between 1868 and 1878, he furnished Ellis with material, transcribed in Visible Speech, on various accents and dialects in different parts of the British Isles.61 It was during this period, too, that he gathered together his materials for what was to be his *Dialect of the Southern Counties of Scotland.* The notation he used was Ellis’s Palaeotype, with the symbols explained by reference not to key-words but to Visible Speech values.

Between 1873 and 1879 there are few extant published examples of his use of phonetic notation. Of those that do exist, two cases call for comment. In his ‘Notes upon West Somerset pronunciation’, he uses (a’) for what he calls ‘the fine sound often heard in ask’.62 Whether he meant an /æ/ or an /ə:/ or something else is touched on below, § 11. Secondly, in his *Encyclopaedia Britannica* article of 1878 on the English language, he notates bow (/bəʊ/) as *bow,* high as *hi* and dough as *də.*63 Such a notation was to be the first version of what eventually became the *Dictionary* notation.

In 1876, Murray was approached to take on the editorship of a new dictionary of English being sponsored by Macmillan’s, the publishing house. One result of his work for them was the preparation, in the autumn of that year, of a type-set proof to illustrate something of the proposed format of the work.64 He used a phonetic notation to indicate the pronunciation of various words (from *carp* to *carrocol*), and this reveals the strong influence on him of Ellis’s two notations, Glossic and Palaeotype, especially in the symbolization of vowels. Glossic symbols include (ee) for /iː/, (ai) for /eɪ/, (au) for /ɔː/, (oa) for /oʊ/, (ng) for /ŋ/ and (j) for /dʒ/. Features from Palaeotype are the use of the raised period (’) to denote stress – it is also used as such in Glossic, and was in due course to be used in the *NED* notation – and the (‘) for the so-called voice-glide. Nevertheless, he did not slavishly imitate these two notations: from the proof it is clear that he was deliberately experimenting with alternative symbols for the same phonemes. He transcribes *carpet* as (kaar’pet) but *carp* as (kahrp) – the use of (ah) for /ɑː/ being a well established convention in many eighteenth- and nineteenth-century pronouncing dictionaries; it
was also used by Ellis in Glossic. Carpological has (dzh) for /dz/ (taken from Palaeotype and also used by Sweet in Broad Romic), but Carphology has (j) for the same phoneme (taken from Glossic). Also, one sees the conscious symbolization of rhoticity, although at this stage he did not allow for non-rhotic and rhotic forms to be notated simultaneously, as he was later to do in the NED with the use of (j) as distinct from (r).

Some two and a half years later, in March 1879, the first proof of three words for the NED (CASTLE, PERSUADE and PERSUADED) was made public. The phonetic notation shows not only a continuation of certain Glossic features from the Macmillan’s work, but the emergence of new ideas of Murray’s own. The three words appear as (kaa’s’l), (pej-swaid’) and (pēj-swai’d-ed). A second specimen page a few weeks later includes the word ADDRESS transcribed as (a-dres’). In both the proofs there is a certain resemblance to Glossic (a Glossic notation would be (kAA’sl), (perswaid’), (perswaid’ed) and (adres’)), but where Murray departs from Glossic most radically is in the diacritics for stress, unaccented vowels and the marking of syllable-boundaries. Numerous examples of what we may call the ‘1879 notation’ can be found amongst the Dictionary slips stored in the Bodleian, and also in an early draft (c.1879) of the Introduction. For example, ABIGENESIS, ALMS, ALTERATION and CAROUSINGLY appear as (a-bei-’ō-gen’-ēs-is), (ahmz), (aul-te-rai’-shun) and (ka-row-zing-li).

Between 1879 and 1881, Murray found himself assailed with advice and criticism from well-meaning colleagues on which notation he should use in the Dictionary. The practical result of this was that his 1879 notation, based mainly on Glossic, began to seem increasingly inappropriate for the task he had set himself. As he himself admitted, an Old English base for the representation of the vowels ‘would suit best with the scientific character of the Dictionary’, yet, on the other hand, it would be ‘less popular as a practical guide to the pronunciation’. If he made the base Modern English, ‘digraphs for simple vowels [= monophthongs]’ would often be ‘cumbrous and awkward in the extreme [for words of Romance origin]’. It was this conflict between the need for the system to be capable of notating sounds unambiguously whatever their nature and current orthographic equivalents and at the same
time to be intelligible to a lay person, that was to compel him to recast his notation in favour of a 'scientific' rather than a more traditional, 'orthoepical' format.

Thus, in July 1881, he began abandoning the relative simplicity of a Glossic-based notation in favour of something more adventurous. On one slip of paper that has survived,70 twelve RP phonemes are notated with single symbols, /r/ is represented by (r) when syllable-initial and by (ı) when syllable-final. For /e/, he experiments with two symbols (e) and (ı), neither of which found their way into the final NED version.71 Similarly, there are two symbols for /eu/: (e) and (ı); and two symbols for /i/: the word HONEST is transcribed both as (onëst) and (nônëst). (The symbol (n) was later to be used, albeit italicized, in the NED for IPA /n/.) At the same time he tried italics for wide vowels (as in Narrow Romic), and three different ways for symbolizing post-tonic /a/. Choosing a symbol for /u/ led to various suggestions: Lecky wanted him to use (≪), but only if the sound were a 'mid-back [u]'. If it were a 'mid-mixt [u]', then he should use (ë). As an alternative to (≪), he ought to consider (n).72 Pitman, on the other hand, thought he ought to use the 'ram's horn γ', the very symbol he used in his Fonetik Jurnal.73 But at this stage, at least, Murray preferred none of these, but instead the (u) symbol used by Pitman (and earlier by Pitman and Ellis in their Phonetyp of 1846) for the /ju:/ of FEUD. An alternative he tried was a slightly opened (a): thus, COME was (cam). Evans, who was cutting type for Murray, was not, however, convinced.74

As well as having to contend with questions of symbol-shapes, Murray was also compelled to take into account an important theoretical matter that Lecky and Pitman raised. They objected to the proliferation of symbols for unaccented /i/. Murray was using at least three: (i) in BELIEVE, (i) in EVENT, and (ı) in FISHES. For the second element in the /au/ diphthong, he was using (ı). Lecky could accept this 'degree of minuteness', as he called it, if equally fine distinctions were made between the different realizations of /au/ and /ao/. Pitman too pointed out that Murray had 'two notashonz for the same sound in the same pozishon'.75 Murray's reaction apparently was simply to disregard the point that his two colleagues were making. Had he taken their view into account, a
different direction might have been lent to the later development of the notation. As it happened, the question of the notation being phonemic or phonetic or a mixture of the two was to reappear later on.

By about the end of November 1881, Murray's ideas had evolved to the point at which his notation showed strong resemblances not only to features of Sweet's Revised Romic (1880) but also to what was to be the final phonetic notation used in the *NED*. Narrow vowels are indicated by the use of italics, front rounded vowels (for French, German, etc.) by the diaeresis diacritic, long vowels by a horizontal macron, all low rounded vowels, both narrow and wide, by a tag (e.g. ə), and all mixed (i.e. central) vowels by a period either below or above the symbol. Still, some uncertainty (or perhaps just the desire to experiment) remained: the words *wet* and *wed* are transcribed (*wet* wet *wed*); and the symbol for /o/ is variously (ө), (d) and (o).

The next few months were critical for the final development of the notation. Although Murray felt that he had produced a notation which was equal to the task, this was not Lecky's view. He thought the notation was full of 'heresies', and would have to be 'learnt as something fresh both by the public and by phonetic students'. What Murray had done, he said, was to alter the conventions of Narrow Romic, for example by using italics for narrow vowels, by assigning 'totally new values' to eight symbols. In short, he was being perverse by devising a system of his own, based in part on Romic, when Romic itself would have been perfectly suitable for his purposes. All that Murray could say to this, though not directly to Lecky, was that his system had to be seen as a 'compromise, necessary for practical purposes'.

In May 1882, the Clarendon Press asked for a copy of the Key to the Pronunciation – which would suggest that Murray had by now either completed his work on the notation or else was being urged to do so by the Press – but alterations to it were still being made by as late as October. One of these, which may have arisen from Lecky and Pitman's remarks on the excess of symbols being employed, was for what Murray called 'elastic values' to be assigned to certain symbols. He explained that a symbol (every symbol) had to be read as meaning, for example, any vowel sound
between two extremes. He quotes two examples to make his point:

\[ \text{f} [= \text{IPA}[\sigma]] \quad \text{and} \quad \text{t} [= \text{IPA}[\delta]], \]

perhaps most commonly \[ \text{f} [= \text{IPA}[\sigma]] \], '\( \text{\( e \)} = \text{Palaeotype (e)} [= \text{IPA}[\epsilon]] \) and '\( \text{\( e \)} [= \text{IPA}[\epsilon]] \)'\(^{80} \). From this we can conclude that the transcription was meant to be phonemic, as Lecky and Pitman had implied it should be, yet the principle was never extended to the notation of unaccented vowels. Furthermore, Pitman discerned something of the contradiction between phonemic and allophonic criteria when he suggested Murray should have a convention whereby vowel + (1) sequences could be read in two ways. Instead of, for example, (\( \text{\( e \)}i\)) alongside (\( \text{\( e \)}\)), a single transcription (\( \text{\( e \)}r\)) should be used.\(^{81} \) In other words, Pitman wanted to see a 'base-form' notation being used, to avoid the necessity of indicating two separate notations.

The first Part (but not Volume) of the \textit{NED} appeared in January 1884. For eighteen months the printers had been working on setting Murray’s copy in type, and, for this reason, any alterations he proposed making to the notation were, to all intents and purposes, out of the question. Still, there is evidence that he had, on reflection, wished to introduce some changes. Indeed, if he had succeeded in introducing them before the exigencies of the type-setting process precluded them, the notation would have been slightly easier for a lay person to understand.

In a letter to Hallam in January 1883, he confided that he wished he had not symbolized \(/e\)/ and \(/o\)/ as (\( \text{\( e \)} \)) or (\( \text{\( e \)}i\)) and (\( \text{\( o \)} \)) or (\( \text{\( o \)}u\)), but simply as (\( \text{\( e \)} \)) and (\( \text{\( o \)} \), ‘leaving the tapering [i.e. the diphthongization] to be supplied by the reader where he pleased’.\(^{82} \) Further, he wished that he had symbolized \(/a\)/ as (\( \text{\( o \)}i\)), not (\( \text{\( a \)}i\)); the latter had been more or less forced on him by Ellis. Another, relatively minor, alteration would have been to symbolize the second vowel in ‘-ology’ terminations not as (\( \text{\( o \)} \)) but as (\( \text{\( o \)} \)). This symbol did, however, slip into the \textit{Dictionary} during Craigie’s years as editor.\(^{83} \) Another change he had in mind, despite what his colleagues had told him about it, was to indicate yet more precisely the actual qualities of unaccented \(/u\)/. Not only did he want to have different symbols for the \(/u\) of \textit{roomy}, \textit{solid} and \textit{mid}; he also wanted to show that, in the word \textit{city} at least, a Scottish pronunciation would be [i], whereas some Londoners would use [e], others [\( \text{\( e \)} \)].\(^{84} \)
11. Some problematical features of the notation

(ai) and (ai) In the Key to the Pronunciation, Murray makes a distinction between (ai) in AYE and (oi) in I or EYE. The explanation for this would appear to lie in a series of confusions deriving from variant pronunciations of /ai/ in regional varieties of English, from contextually-dependent phonetic differences within a particular idiolect, from the phonological/phonetic situation in his own Lowland Scots dialect, and from his interpretations of the views of Ellis and Melville Bell. The result is that users of the Dictionary have often found it difficult to accept Murray's two symbols.

In the Key, the word AYE is given with (ai), but in the Dictionary itself AYE and AY (the interjections indicating assent) have two pronunciations: (ai) and (ai). AYE and AY as adverbs have (aι'), as does AY, the interjection denoting surprise or regret. The word AYE-AYE, a Madagascaran animal, has only (aiiai). Yet despite the alleged distinction between (ai) and (ai), only a small minority of words containing /ai/ are marked with (ai); the rest have (ai).

Three different sources for the distinction (and the ensuing confusion) can be traced. The first is the phonology of Murray's own native dialect of Denholm in Roxburghshire. In 1952, the Linguistic Survey of Scotland noted that the informant from Denholm, an elderly farmer, distinguished AYE and AY: the first word was [Ei], the second [hi]. (A second minimal pair to illustrate the distinction is [tEi ]TIRE and [taix] TYRE.) But what is also noticeable is the allophonic range of the second phoneme, from [ai] to [ai], as well as the existence of a third diphthong, used in words like BIDE and wide, and phonemicized by the LSS as /Ei/ 85. It would be a reasonable assumption, then, that in Murray's own dialect speech there would have been two, if not three, diphthongs corresponding to an RP /ai/.

But what of his 'educated' Scottish, as distinct from his Scots, speech? Here one finds, I believe, a second source for the distinction. Nowhere at all, either in print or in his private correspondence, does he remark on the existence of a contrast between /ai/ and /ae/, as in TIDE and TIED, a contrast which exists today in almost all forms of Scottish speech, including that of the Denholm area, and which has been a feature of Scottish since the
seventeenth century. It is possible, then, that by the time he began work on the pronunciation aspect of the *Dictionary* he had ceased to make the distinction: possibly in reaction to the situation in his own dialect pronunciation but also because his phonetics teacher, Melville Bell, despite his Edinburgh background, did not make the distinction in his own speech. And yet Bell, in his *Visible Speech* (1867), distinguished between the vowel of, on the one hand, *AY*, *AYE* and *AISLE* (in IPA terms [ɑː]) and, on the other, that of *I* and *EYE* (=IPA [ɑː]). Twenty years later, however, in his *University Lectures on Phonetics* (1887), *I* and *EYE* remain the same, i.e. [ɑː], but *AY* is now [ɑː] (but there is no indication as to how *AYE* and *AISLE* are pronounced).

Thirdly, Ellis must have created some confusion in Murray's mind about the phonetic and phonemic facts of /at/ in English. In 1867, he noted that the distinction between (ai) and (ai) was dependent on the position of the accent in a word. In the word *ISAIAH*, he says, (ai) is used in the first, unaccented, syllable, but (ai) in the second, accented, one. But in 1874, he was adamant that 'The words *eye*, *aye* are now so distinguished (aɪ, a')—even though there is no shred of evidence to support this conclusion from other contemporary sources. Murray must have been conscious of the fact that Ellis was heaping confusion upon confusion, because he admitted, in a letter to Hallam, in 1883, that 'Mr. Ellis maintained that the distinction of sound [i.e. between (ai) and (ai)] in accented and unaccented (i) was merely Scotch, one which Englishmen could not even imagine'. What, of course, Ellis had apparently failed to recognize was that the distinction applied to accented syllables in Scottish English, and, furthermore, that the phonetic difference was comparatively easy to perceive in unaccented versus accented syllables in English English.

Murray eventually regretted ever having made the distinction in the first place, because he told Hallam that he must 'point out in the explanations that *ai* means *ai*, or *ai* according to stress'. He never did, however.

(*a*) and (*b*) The distinction between the (*a*) of *FIRST* and the (*b*) of *TURN* might, at first sight, seem to be an importation of a feature of Murray's own accent. (What his accent was actually like is far from
certain. The distinction would have existed in nineteenth-century Scottish accents, and it is found today, not only in the speech of most native Scots but also in the present-day version of the Denholm dialect: \[\text{fēr}\] FIR contrasting with \[\text{fār}\] FUR. An argument against it being simply a Scottish feature is that Murray, to be consistent, ought to have distinguished three vowels, not two, the other being the vowel of EARTH, comparable to the RP /\varepsilon\varepsilon:/ . That he did not suggests that an explanation should be sought elsewhere.

A second possibility is that as a philologist he was well aware of the history of /\varepsilon\varepsilon:/ , and that he was blindly following the rule that a word such as BIRD, which in ME contained an /\varepsilon/ , or SERVE, which contained an /\varepsilon/ , would appear in his notation with (\(\text{3}\) ); words such as WORK and CURSE, with /\varepsilon/ in ME, would appear with (\(\text{6}\) ). But this hardly does justice to his abilities as an observer of the phonetics of nineteenth-century speech.

The most likely explanation has nothing to do with his accent or with the history of English, but with the fact that some people in England in the 1880s did indeed make the distinction. Admittedly, Ellis, writing in 1874, had expressed considerable doubts about this, except, he said, for speakers in Scotland, the West of England and ‘many outlying districts’, but earlier in the century, in 1836, Benjamin Smart had pointed out that the distinction still existed ‘in the more refined classes of society’.

\((\text{0})\) and \((\phi)\) Murray distinguishes clearly between the vowels of GOT and WATCH. The former, symbolized as \((\phi)\), he describes as a ‘low-back-round, varying with mid-back-round-wide’ (\(\approx\) IPA [\(\text{n}\)] to [\(\text{ɔ}\)]); the latter, \((\phi)\) as ‘low-back-round-wide’ (\(\approx\) IPA [\(\text{ʊ}\)]). He himself made the distinction, but it cannot have been universal in nineteenth-century speech. At the end of the previous century, Walker had stated explicitly that COT, LOT and WHAT were ‘perfect rhymes’, and this opinion was to be repeated by later compilers of pronouncing dictionaries. Ellis, whose accuracy of observation on phonetic matters can normally be relied upon, remarked, in 1867, that the vowels of words, on the one hand, such as SQUASH and WHAT and, on the other, HOSTILITY, were ‘theoretically perfectly distinct’, yet ‘constantly confused’.
The source of the distinction is undoubtedly Melville Bell. He, like Murray, made a distinction in his own speech between the got and watch vowels. In his Visible Speech he described the /o/ of honest, knowledge and foreign as a wide vowel, but the /ɑ/ of want and salt as a primary. In other words, the honest vowel was made with a relaxed pharynx, that of want with a tightened pharynx. Equally importantly, though, he pointed out the existence of a third vowel, which is of relevance here: a lengthened version of the salt vowel, used in words like all, taught and saw. But in his later publications, he made no mention of the second (salt) vowel; instead, the distinction was between the short, wide honest vowel and the long, primary all one.

What Murray did, then, in the Dictionary was to perpetuate a feature which other phoneticians, including Bell, no longer saw fit to mention. Rather than being a phonemic distinction, akin to that between, say, (ɸ) and (ɒ), this was an allophonic difference arising from the nature of the segment preceding the /o/, which Murray, from his knowledge of the history of /o/, was acutely aware of. He admitted as much to Pitman: ‘The matter is partly historical. ɒ in watch, what, water is a very recently rounded ā remaining like ā a wide vowel. ɒ in not, shot is a lowered o . . . a narrow vowel.’

(a) and ‘Middle A’ Murray’s (a), which denotes either (æ) or (ā) [IPA [a:]], obviously permits a feature of phonological structure to be formally recognized: some speakers, in their pronunciation of a word like pass, for example, used the vowel of hat, others that of arm. What he never remarks on, however, is the precise phonetic quality of (ā) – unless one is to assume that it has, like (e), an ‘elastic value’. This in itself is surprising not only in view of his keen ear for sub-phonemic differences, but also in view of the fact that a fronter realization of /a:/ before certain fricatives and /n/ had already been noticed by a number of pronouncing dictionary compilers. The term ‘Middle A’ or ‘Smart’s Compromise’ had been used for such a sound. As Smart himself expressed it, in 1836, speakers were ‘apt, even in London, to give a slight prolongation to the vowel . . . as in graft, glass, plant; which slight prolongation was once universally accompanied by a decidedly broader sound, such as might be signified by graft.’
In other words, a fronter articulation of /a:/ (or a backer articulation of /æ/) was current. Ellis, too, in 1874, remarked on it: in London, he said, he had heard words such as *graft*, *pass*, *wrath* and *chance* pronounced with a vowel extending from [e] through [a] to [ã] — but, notice, not to [ã] or [ã]. Murray, himself, in his observations of West Somersetshire speech, had commented on the 'fine sound of ask'. Why, then, he never once mentioned it in the *Dictionary* or his correspondence remains unclear, unless it is meant to be understood from the (a) symbol.

12. Conclusions

Whatever defects can be found in the notation, it should not be forgotten that Murray developed it under circumstances that were far from ideal. At virtually no time was he ever free from the pressures of being Editor of the *Dictionary* or from a spate of well-intentioned, but sometimes contradictory, advice from his colleagues, to be able to devote his thoughts exclusively to the subject. That he even found the time and stamina to devise an entirely new notation when the simplest course might have been to have used one of Sweet’s Romic systems is, in itself, commendable. If he had thought harder and longer about the nature of the task he had set himself, he might have recognized early on in his work that to try to evolve a system which was partly phonemic, partly allophonic, and partly comparative was going to be fraught with problems. It was not that the concept of the phoneme was unknown at this time,¹⁰⁶ but that no attempt had been made to incorporate it into comparative work — which, essentially, was what Murray was trying to do. In this sense, he was treading on new ground altogether.

The notation can be seen as being diaphonetic in certain respects. At the level of phonological structure, there is the distinction between rhotic and non-rhotic forms, between the use of /ɔ/ or /ɔ:/ and /æ/ or /ɑː/ in certain contexts. But many other examples of structural variation are overlooked: for example, the use of /ɪ/ or /ɨ:/ in the unaccented vowel of *city* — although, as has been indicated, Murray was well aware of this variant and had even thought of marking it in the notation.

The only examples he gives of variation in the realization of
phonemes are the monophthongal and diphthongal forms of /ei/ and /oo/. Not only does he fail to refer to diphthongal realizations of, for example, /iː/; he also omits any mention of a whole series of other realizational variants: for example, /ʌ/, /e/ and /ʌ/ . Perhaps he singled out diphthongization because it could be easily symbolized, and because it was an obvious distinguishing feature of English versus Scottish accents. To have indicated differing qualities of, say, /e/ would have meant, inevitably, a set of additional symbols.

Examples of different pronunciations involving the selection of phonemes in particular words (for example /æ/ or /eu/ in patriot) were handled not by special diaphonetic symbols, but by listing the pronunciations side by side.

Two examples of systemic variation have been noticed: the vowels of bird/turN and got/watch. But where, one might ask, is an indication of other systemic differences which very probably existed in nineteenth-century educated accents: the contrast in certain Western accents between /æ/, /æː/ and /əː/, for example, or that between /uː/ and /iʊː/ in certain Welsh accents?

In spite of reservations about the form of the notation and lingering doubts about which accent or accents of educated English Murray was actually attempting to encapsulate in his notation, it seems clear that the NED reflects a brave attempt, in the face of many theoretical and practical difficulties, to try to state how individual words were pronounced across the educated spectrum of mainland British or, perhaps more narrowly English, English accents. The task Murray set himself was certainly more ambitious than anything attempted before – or since.

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Notes
1. Murray's symbols and diacritics are quoted, without alteration, between ( ) brackets. Where no ambiguity can result, however, some items have been interpreted directly in IPA terms.
4. In Supplement 2 this (I) is glossed as a sound 'that may be omitted either by individual speakers or in particular phonetic contexts' (loc. cit.). If the accent really is RP, there can be no justification for an optional medial (I).

5. 'I like the arrangement very well indeed' (Hallam to Murray, 2 November 1882). '... whether Dr. Murray's notation is, from a scientific point of view, the best possible, we do not undertake to say' (Bradley 1884: 142). 'I like extremely the pronunciation ... which is a sage milieu between the old pedantry of former lexicographers and the slovenly vulgarism of Sweet. I perfectly understand your notation ... whereas Mr. Ellis's palaeotype is very obscure sometimes' (Storm to Murray, 12 April 1888. Cf. also Storm 1892: 455-61). '... die wegen ihrer orthoepischen Toleranz leider etwas komplizierte Umschrift' (Vie\tor 1904: 14).

6. The unpublished source-materials on which this article is partly based include the Murray Papers (in private ownership – for further details, see Murray, K. M. E. 1977), the Hallam Papers (Madan & Craster 1924: 123-9, MacMahon 1983), and various items in the Archives of the Oxford University Press and the Archives of the Oxford English Dictionaries. Of the colleagues who have been instrumental in making material available to me, none deserves greater thanks than Miss Elisabeth Murray. She has kindly given me free access to the Murray Papers, and has been a continuing source of enormously efficient and insightful advice.

7. Trench 1860: 5. The Canonones were published as part of Part II of the 1857 Transactions, which, however, were not issued until December 1860.


10. In February 1863, Coleridge spoke on 'A scientific classification and representation of the sounds in English words attempted' (TPS 1862-3: 332). Ellis's paper 'On palaeotype' (see TPS 1866, Appendix 13) was published as the second supplement to TPS 1867. His 'On glosis' appeared in TPS 1870-2. Melville Bell's paper, 'How to speak all languages', an exposition of his Visible Speech principles, was delivered in December 1869, and was received warmly, especially on account of its 'value for philological investigations' (TPS 1868-9: Appendix 17).

11. Price to Murray, 14 May 1878; Murray to Price, 16 May 1878.

12. Although the Macmillan's Dictionary was never published, some proofs of it were prepared, and these have survived. They are discussed below, § 10, together with Murray's work for Jamieson's Dictionary.

13. So far as the inclusion of Scots words in the Dictionary was concerned, Murray regarded it, rightly or wrongly, as a dialect of English, and hence treated it like other dialects, extracting from its vocabulary only those post-1500 words and expressions which had achieved a certain literary currency (Murray 1888: xviii). Later, in a letter to Craigie (10 May 1901), he emphasized the need to exclude Scots vocabulary as far as possible: 'I think it is very necessary to reduce Scotch words to a bare minimum. After all, we are making an English dictionary, and must not allow purely Scotch words to take up space wanted for English words.'

14. In 1886, in response to a query from an American lady, Murray stated his views very firmly: 'Outside England (i.e. in the United States, Scotland, Ireland, the colonies), much more than in England, people are apt to think that there is only one correct or proper, or right pronunciation of a word. We in England on the other hand recognize that language is mobile and liable to change and that a very large number of words have two or more pronunciations current at the same time, and [sic] giving life-variety to language . . . You may therefore quite freely choose
for yourself between pronunciation and pronunciation, or use them alternately; either (eether or ither) is intelligible . . . I say eether, my children all say ither.' (Letter of 15 April 1886. The name of the recipient is not known.)

15. Nicholson even suggested that 'the conquests of the neutral vowel' should be halted, that 'the sound hw' should be reinstated, and that the English public should be spared the pronunciations 'Ashia' and 'Ashiatic'! (Nicholson to Murray, 7 March 1880). Edward Williams Byron Nicholson (1849–1912) was Librarian of the London Institution and, from 1882 until his death, Librarian of the Bodleian. Ironically, his reactionary point of view in regard to phonetic topics stands in marked contrast to the ultra-radical position he assumed in political discussions.


18. Lecky to Murray, 21 and 27 July 1881. In the first of these, he mentions the 'North of England', but not in the same sentence as his comment about Murray being able to give the 'northern' forms. He could, conceivably, have meant that a Northern English rather than a Lowland Scottish accent should be notated – he might even have believed that the two were the same. If so, he showed a curiously unperceptive awareness of the character of Murray's own (original) accent, out of character with his proven abilities as a phonetician. (Murray's accent is discussed below, Note 93.)


20. Ellis 1869: 23; 1874: 1216. For examples, see 1874: 1168 f.

21. Ellis to Murray, 26 September 1882.

22. Sweet to Murray, 22 March 1882.

23. 'Twenty years ago people would not have gone to the dictionary for the facts of contemporary English pronunciation; on the contrary, they would have expected you to set up a standard by which they could “correct” their own natural utterances, and the more artificial and unreal that standard, the more they would have been pleased. Now people are beginning to see that before setting up a standard, we must find out what the actual natural pronunciation is, how far it varies locally, chronologically, and according to rank, occupation etc; how far there is unity in educated speech; if so, what does that unity consist in? In the retention of archaisms by “careful” speakers? or in a general approximation of provincial speakers to educated London English?; how far it is [sic] possible to keep up an oratorical pronunciation distinct from a colloquial one. Even those who admit the variety of concurrent pronunciations laid down by you, must also admit that a preliminary study of natural colloquial pronunciations is, at any rate, a very safe basis for the further investigation of the necessarily vague ideas and aims of theorists . . . The plain fact is, we do not yet know anything certain about these preliminary questions – there is nothing but guess, imagination, prejudice and contradiction. And such will be the state of things till we have a number of careful special investigations, to which I hope my own work may be an incentive.' (loc. cit.) The category of natural pronunciation is very probably taken from Ellis's five-fold classification of accents: received, correct, natural, peasant, vulgar and illiterate (Ellis 1874: 1214–16, 1243–4).


25. Loc. cit.


27. Sweet to Murray, 29 March and 3 April 1882.

29. Murray, K. M. E. Personal communication.

30. (bri-mst'o'n, -sta'n, -ston-stön, -stön, -stan, -stan, -stan', -stan'), (prö-pu'-z, pro'-, pro-, pro-, pro-, pro-, pro-, pro-), (o o o o o o o) Murray to Hallam, 12 October 1883, id. 5 October 1882, loc. cit., id. 19 November 1882. The (3), (a) and (3) symbols, which do not appear in the *Dictionary* (but see Note 83 below), should be interpreted as IPA \[\beta\] [\varepsilon], [\varepsilon] and [\varepsilon] respectively.

31. Murray to Hallam, 19 November 1882. Pitman too had noticed the extensive range of pronunciations of scientific terms (Pitman to Murray, 6 October 1882).

32. Ellis to Murray, 29 October and 31 [sic] September 1882. Murray did, nevertheless, try to verify putative pronunciations with colleagues (Murray 1888: xi).

33. Sweet to Murray, 3 November 1884.

34. Hallam to Murray, 15 January 1883.

One should note in any case that there are often discrepancies between the notation (especially of unaccented vowels) on the slips of paper which were sent as copy to the printers and the published versions of each entry. Whether the published versions reflect uncorrected errors at the proof stage, or a change of opinion on Murray’s part between copy being sent to the printers and the published work appearing, is impossible to determine. Nevertheless, such alterations as the following, which I have found, must raise doubts about the real accuracy of the transcription as a reflection of how ‘educated’ English was spoken. Symbols on either side of the oblique / refer to the copy/NED versions respectively; (a) represents either \(\beta\) or \(\varepsilon\): accumulated \(\varepsilon\); acetone \(\varepsilon\); achor \(\varepsilon\); aconite \(\varepsilon\); aegrotat \(\varepsilon\); agony \(\varepsilon\); alas \(\varepsilon\); alcohol \(\varepsilon\); alto \(\varepsilon\); \(\varepsilon\); altogether \(\varepsilon\); amatory \(\varepsilon\); amzon \(\varepsilon\); bath \(\varepsilon\); brimstone \(\varepsilon\); (see also Note 30 above.); casque \(\varepsilon\); chiffchaff \(\varepsilon\); circumstantial \(\varepsilon\); contralto \(\varepsilon\); demand \(\varepsilon\); dur \(\varepsilon\); European \(\varepsilon\); evaporate \(\varepsilon\); hero \(\varepsilon\); honorarium \(\varepsilon\); honourable \(\varepsilon\); iodine \(\varepsilon\); lather \(\varepsilon\); masculine \(\varepsilon\); meteorphose \(\varepsilon\); moor \(\varepsilon\); morality \(\varepsilon\); mourn \(\varepsilon\); mor \(\varepsilon\); psycye \(\varepsilon\); worm \(\varepsilon\); worship \(\varepsilon\); Worship \(\varepsilon\); worthy \(\varepsilon\); xylophone \(\varepsilon\); your \(\varepsilon\); your (unacc.) \(\varepsilon\); zi; zoi; zero \(\varepsilon\); zoology \(\varepsilon\). The slips for giraffe and plaque contain (a), which is repeated in the *NED*. Presumably, though, it should have been either (a), (a) or (a). The slip for majesty illustrates nicely one of the problems Onions faced. In his handwriting is (mae.dgasti). The (a) was then changed to (i). This, in turn, was crossed out and replaced by (e). In the *NED*, however, the vowel is (e)!

35. There is only Lecky’s word for this (Lecky to Murray, 27 July 1881).


37. Cf., for example, Walker (1791: v): ‘But if a solemn and familiar pronunciation really exists in our language, is it not the business of a grammar to mark both?’ Sweet’s ‘familiar’ style is seen perhaps most obviously in his fairly free use of elisions and assimilations in the phonetic transcriptions in his works. Even so, he was sensitive to, and rejected, the criticism that was often made that his own speech (which, with minor adjustments, is what appears in his works on English phonetics) was ‘vulgar’ or ‘Cockney’. 
39. See the explanation in the NED in the first column of ‘A’.
40. Murray 1881-2: 78–9, Ellis to Murray 19 September 1882. See also Murray to Hallam, 19 November 1882. It is not difficult to find fault with Murray’s viewpoint. If he really had chosen a style used when speaking carefully, then surely it would have been the ‘rhetorical’, not the ‘muzical’ one. And, in any case, one of his key-words used to illustrate the pronunciation (Murray 1888: xxv), the word nation, is clearly not in the ‘muzical’ style, since it contains in the unaccented syllable a (a); it ought to be (ð). See also Murray 1881-2: 79. Furthermore, style-differences are to be found in contexts other than unaccented vowels. Changes in the articulation of consonants, involving elision, assimilation, liaison and co-articulation have to be taken into account. Additionally, non-segmental features such as continuity and tempo can be indicators of style-shifting – even though, of course, they would remain unmarked in a dictionary.
41. See, for example, the introductions to the letters ‘n’ and ‘o’.
42. See under ‘s’.
43. Bell 1867: 69, Ellis 1848: 10. The diacritic (‘) is from Ellis.
44. See the introduction to ‘l’.
45. Bell 1867: 113. Bell’s distinction between primary and wide vowels (those with a contracted pharynx and those with a relaxed pharynx (Bell op. cit.: 71)) was remodelled by Sweet into a distinction between narrow and wide vowels (those with tension in the tongue surface and those without it). Murray uses Sweet’s terminology, but may have kept to Bell’s criteria for ‘primariness/wideness’. Thus, for Sweet the vowel in air is narrow, for Murray it is wide. Similarly, his narrow /ɔ:/ in saw is Murray’s wide (ø), and his wide /øj/ in not is analysed by Murray as a narrow sound. (Sweet’s analyses of English vowels did, however, vary: cf. his tabulations in the Handbook of Phonetics (1877) with those in the Primer of Phonetics (1890).)
46. Bell 1867; Sweet 1877, 1890.
47. Murray 1881-2: 78.
48. Worcester (1859: xv) uses the terms ‘proper’ and ‘improper’ in yet another sense. The former is a vowel digraph in which both ‘letters’ are pronounced (e.g. voice), the latter in which only one of them is pronounced (e.g. heat).
49. Three periods in the history of spelling reform in nineteenth-century Britain (or, more accurately, England, since the topic did not appear to arouse the same degree of interest – or ir - in other parts of the British Isles) can be distinguished. Firstly, the late 1840s onwards, when Pitman and Ellis began devising their phonotypic alphabets (cf. Kelly 1981). Secondly, the years 1869 and 1870 when the Philological Society made moves to institute an informed discussion of the problems of reforming English spelling – Ellis’s paper of 1870 on Glossic is a product of this. And, thirdly, the second half of the 1870s, when two separate requests were made to the Government, in 1876 and 1877, for a Royal Commission to be set up to enquire into the whole question.

Nothing came of these two initiatives, but public interest in the subject had been kindled, and in 1879 the English Spelling Reform Association (ESRA) was set up, with strong backing from well-placed members of the philological, educational and scientific branches of the Victorian establishment. Two journals appeared, the Spelling Experimenter and Phonetic Investigator and the Spelling Reformer, devoted exclusively to considering possible reformed systems and, more generally,
the practical problems attendant on any partial or, indeed, whole-scale reforms of English orthographic practices.

In 1880, the Philological Society, at Murray's instigation, looked once more at the entire question, and, after a year's deliberations, produced its 'Partial Corrections of English Spelling Aproovd of by the Philological Society' (1881), a well-written and level-headed statement, mostly the work of Murray and Sweet. Before Murray's initiative, there had been some behind-the-scenes moves. In 1878, Sweet convened a private meeting of Ellis, Murray, Nicol (Sweet's cousin) and himself to discuss the question. Ellis's attitude was, given his long-standing interest in spelling reform, far from progressive, and Prince L. L. Bonaparte was led to comment that the endeavour to reform the spelling of English was 'childish' (Sweet to Storm, 4 November 1878).

Despite any privately expressed reservations about the direction things were taking, no fewer than twenty-seven different schemes for a new spelling system had been published within a year of the founding of ESRA (Soames 1880: 3). The air was full of talk of the respective advantages of, to name but a few, Dimidian, Utility, Cheilic, Europic, Suggestive, Union, Popular English, Proximate, Consistent and Compendious.

Not surprisingly, philologists soon became exasperated by the sheer volume of trivia that had been generated, as well as by the lack of any clear appreciation of the real problems associated with reforming the spelling of a language like English. (There were notable exceptions, however: Sweet's paper of 1881 on the 'Elementary Sounds of English' is a model of lucidity amidst a welter of dilettanteish concoctions.) Thus, Lecky revealed to Murray, in 1881, the distinct bitterness he felt about the way ESRA and its activities were developing, and went on to say that 'We [i.e. the phoneticians in ESRA] have come . . . to look on any new system as a public nuisance and on its maker as a public enemy' (Lecky to Murray, 21 July 1881).

Thankfully, the end was soon in sight. By 1883, the more dynamic of the two journals, Evans's Spelling Experimenter, had ceased publication; the Spelling Reformer soon followed suit. Still, the few years of sometimes heated and frenetic debate, both in public and private, had, at least, allowed most sides of the competing phonological, morphological and etymological bases of English orthography to be aired ad nauseam. Furthermore, various linguists had used the opportunity to make a number of telling points, especially about phonetic topics, such as the need for anyone contemplating a reform of English spelling to adopt a descriptive and not a prescriptive approach to the sound system of English (cf. Sweet 1881; Soames 1880). It had also been an opportunity to explain the concept of the phoneme – variously 'elementary sound', 'distinctive sound'. See also Note 106 below.

50. Murray 1877–9b: 573; see also 1880–1: 268. Sweet urged on him the idea of using Evans’s Union system, if he finally decided to opt for a reformed spelling rather than a phonetic notation (cf. Murray 1880–1: 268). William Robert Evans (1831–88) was a printer, publisher and author and the founder/editor of the Spelling Experimenter (see Note 49 above). As well as advising Murray at various times on the choice of symbol-shapes for the notation (his experience as a printer was invaluable), he also contributed papers on phonetic subjects to, inter alia, Pitman's Fonetiik Jurnal and Victor's Phonetische Studien. His brother was Edward Challenger Evans, a senior member of the staff of the Ashmolean Museum in
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Oxford. For a brief biography, see *Phonetische Studien* 2 (1889) 112. (I am grateful to Mr. R. F. Ovenell, formerly Librarian of the Ashmolean, for the information about Evans’s brother.)

51. Murray to Pitman, 7 October 1882.

52. Rundell to Murray, 20 January 1880, 12 March 1881, Murray to Rundell 15 March 1881. Joseph Benjamin Rundell (c. 1834-89) was a civil servant in the Science and Art Department of the Committee of Council on Education (the forerunner of what is now the Science Museum, the Victoria and Albert Museum and the Library of the Department of Education and Science). As an educationalist, he was particularly interested in matters connected with spelling reform and shorthand as they related to schools. For an obituary, see *Shorthand* 1885-9: 300. (I am grateful to Miss D. M. Jepson for information about his professional career.)

53. Simpson to Murray, 17 December 1880. Caleb Platt Simpson (c.183lk.1905) offered Murray his notation for use in the *Dictionary* as ‘the best intermediary phonetic alphabet yet devised’ and preferable, he said, to the one published by the ‘American Philological Society’ [sic]. No copy of his alphabet appears to have survived on either side of the Atlantic. (I am grateful to Mr. Kenneth Jarvis, of the Law Society of Upper Canada, Ms. Yves Marcoux and Ms. Louise Ouellette, of the Public Archives of Canada, for their help in trying to track down a copy of it).

54. Pitman to Murray, 18 February 1881, 25 July 1881, 29 July 1881. Pitman, not unnaturally, had an eye on the commercial advantages to himself of Murray adopting his system. Nevertheless, he was genuinely keen to help him out of his difficulties.

55. Murray to Rundell, 15 March 1881. This criticism is well borne out when one considers that behind the two systems of Palaeotype and Glossic there were, in fact, seven different alphabets. Palaeotype was first published in 1867, in two forms: ‘approximative’ and ‘complete’; an ‘extended’ version followed in 1874; ‘Dialectal Palaeotype’ appeared in 1889 (Ellis 1867: 34 f.; 1869: 1-12; 1874: xii-xiv; 1889: 76*-88*). The first version of Glossic was ‘Glossotype’ (Ellis 1869: 614), which was followed the next year by two further versions, ‘English’ and ‘Universal’ (Ellis 1870-2: 89-118; 1874: 1174).

56. Murray to Hallam, 5 October 1882.

57. Sweet 1880-I: 177.

58. Lecky to Murray, 11 January 1882, 31 July 1881.


60. This must have been a purely private and self-educating undertaking, in no way sponsored by the publishers or editors. In none of the various editions of Jamieson, from 1808 to 1877, is the pronunciation marked. No Key was ever published by Murray (or by anyone else), and no copy of his work has survived (Murray, K. M. E. 1977: 72-6).

61. See, for example, Ellis 1874: 1254 et passim; 1889: 682 f.


63. Murray 1878: 400.


65. Loose insert to TPS 1877-9.

66. The entry for *castle* is also reproduced in Anon. 1882: 246.


68. An unclassified and undated document in the Archives of the Oxford English Dictionaries.
69. Murray 1880-1: 268.
70. Reverse of a letter from J. Yates to Murray, 12 July 1881. The letter itself is unconnected with the notation.
71. The alignment of the tag diacritic in relation to the main symbol was commented on by at least two acquaintances of Murray. Evans (see above, Note 50) favoured the appearance of (ə) and (ʊ) rather than (ˈa), (ˈo), (a) or (o). Valpy suggested Murray should use (ʊ) instead of (o), in view of the likelihood of (ʊ) being confused with a small capital ʊ—something that Lecky had also drawn Murray's attention to (Valpy to Murray, 3 April 1883; Lecky to Murray, 31 July 1881). John Julius Culpeper Valpy (c.1828–1900) was Rector of Elsing, Norfolk; for which information I am indebted to Mr. Andrew Stephenson, of Norwich.
72. Lecky to Murray, 21 July 1881; Evans to Murray, 23 July 1881.
73. Pitman to Murray, 29 July 1881.
74. Evans to Murray, 23 July 1881.
75. Lecky to Murray, 27 July 1881; Pitman to Murray, 29 July 1881.
76. Reverse of Lecky to Murray, 27 November 1881.
77. Lecky to Murray, 11 January 1882. See also Furnivall to Murray, 1 March 1882.
78. Murray to Hallam, 11 December 1882.
79. Dohle to Murray, 10 May 1882. See also following Note.
80. Murray to Hallam, 5 October 1882.
81. Pitman to Murray, 6 October 1882.
82. Murray to Hallam, 29 January 1883.
83. See the introduction to letter 'x'. See also Note 30 above.
84. Murray to Hallam, 29 January 1883, 12 October 1883.
85. I am indebted to Dr. H.-H. Speitel for permission to consult the field-worker's notebooks for Denholm and to listen to a tape-recording of the informant.
86. His thə and səigt were transcribed by Ellis, in 1874, both with (ai), whereas equivalents to /æ/ and /ʌ/ would have been expected (Ellis 1874: 1172). Other examples of a lack of contrast can be found in the same transcript, pp. 1171–3.
88. Bell 1887: 32.
89. Ellis 1867: 14. It is noticeable that Murray quotes this same word in his Key to the Pronunciation. He very probably took it straight from Ellis.
90. Ellis 1874: 1101.
91. Murray to Hallam, 29 January 1883.
92. Loc. cit. This feeling may well have been reinforced the following year when he received a letter from one of the Dictionary's readers, Miss Edith Thompson (13 February 1884), pointing out that she could perceive only a 'slight difference between ay and aye'. She was the daughter of T. Perronet E. Thompson, of Liverpool, a County Court Judge. Her accent, on the basis of her background, was presumably something akin to RP.
93. Murray spent the first twenty-seven years of his life in the Border country in and around Hawick. Both Sweet and Ellis, who came to know him only after he had moved to London, pointed out that his accent was Scottish (Sweet to Murray, 27 March 1882; Ellis to Murray, 26 September 1882). As a teacher at Mill Hill School, his speech was remembered as having had a careful, 'somewhat affected' Scottish flavour to it (Murray, K. M. E. 1977: 109). And at one stage he openly confessed to Sweet that he had 'had to learn the standard pronunciation' (Murray to Sweet, 27 March 1882), and, more tellingly still, that his 'conception of the...
pronunciation of a large number of words was acquired, artificial, personally-warped & garbled.' He continues: 'I have no 'natural' pronunciation & no intuitive knowledge' (Murray to Sweet, 29 March 1882).

In later years, however, he may have acquired more and more of an English accent — although the evidence for this is not conclusive. His son Jowett remembered his accent as being 'normal, southern standard English', and yet one of his granddaughters recalls 'a mildly Lowland Scotch accent with a light voice'. (I am indebted to Mrs. P. Berne for these two pieces of information.) Also, when reading the lessons in the Congregational Church in Oxford, his accent was decidedly Scottish. (I am grateful to Mr. Douglas E. Phillips for this.)

In the absence of any cylinder or disc recordings of his speech, one is left to conclude, I think, that Murray was probably capable of adjusting his accent from Scottish to (?) RP reasonably effortlessly, as the occasion demanded.

94. Ellis 1874: 1156.

95. Quoted by Ellis, loc. cit. Walker, in his Pronouncing Dictionary (1791) makes a distinction between FIR with /iә/ and FUR, BIRD and CURL with /aә/. See also the comparable entries in Boag 1858.

96. See the introduction to letter 'O'.

97. 'I do not pronounce or teach not and watch alike' (Murray to Pitman, 7 October 1882). His native Denholm dialect has [o] and [a] in the words cor and wasp respectively, but such a distinction is much greater in articulatory and auditory terms than the one Murray and Bell made between [o] and [a].

98. Walker 1791: 21 (1838 ed.: 32); Worcester 1859: xiii; Cooley 1861: xii; Boag 1858: 34.

99. Ellis 1867: 10. The evidence supporting this is reviewed by Eustace 1969: 40-3. Ellis was aware that the auditory difference between the two sounds could not be attributed solely to a difference of tongue height: the setting of the pharyngeal muscles and the degree of lip-rounding contributed something to the total auditory effect (Ellis 1874: 1116-17).

100. Murray to Pitman, 7 October 1882.

101. Bell 1867: 115–16


103. Only the Norwegian phonetician, August Western, distinguished between the cor vowel and its narrow equivalent, in the first edition of his Engelsk Lydliere (1882: 9). But this was on the basis of syllable-type: the wide vowel (cor) was used in a closed syllable, the narrow vowel in an open one. In the first German edition (1885) of his book, however, and in subsequent Norwegian and German editions, the distinction was no longer indicated.

104. Murray to Pitman, 7 October 1882.

105. Smart 1836: v. Cf. also Worcester 1859: xi, xiii; Cooley 1861: xxii; Longmuir 1865: Key & viii; Soule and Campbell 1873: vi; Western 1885: 15, 39.

106. What is nowadays regarded as the classic nineteenth-century statement on the phoneme versus the speech-sound is to be found in Sweet 1877: 103-4. But before then, other linguists had made effectively the same point. Ellis, discussing the range of vowel-sounds used in speech, had noted that 'no language or dialect certainly distinguish[es] the six sounds formed by 'primaries' or 'wides' of any series (except as accidental varieties due to the character of the following consonant, or to the presence or absence of accent — never to distinguish words' (Ellis 1874: 1107). Murray, too, had commented in similar vein on the subject in his Dialect of the Southern Counties of Scotland (1873: 106). See also Morris 1873: 61; Evans 1881:
There seems sufficient evidence for one to be able to conclude that some at least of the nineteenth century's phoneticians were aware of the need to distinguish between a 'phonetic' and a 'phonemic' approach to sounds. However, unlike their twentieth-century successors, they saw no reason to develop the distinction into a major item of theory.

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