Roman Phonetic Alphabet for English

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ROMAN PHONETIC ALPHABET FOR ENGLISH

Lyubomir Ivanov, Valerie Yule

Abstract

The present work describes the underlying principles of the 2002 Basic Roman Spelling of English [4] aimed at providing an alternative English orthography for international usage. This has been developed by Lyubomir Ivanov, who introduces here a new construction for that system, and proposes a closely related Roman phonetic alphabet to be used for the pronunciation respelling of English without special characters or diacritics. A comparison is made with *Interspel* [11], a system developed by Valerie Yule that attempts to maximize the advantages and remove the disadvantages of traditional spelling of English, to benefit learners, users and international communication.

1.   Re-Romanization

Re-Romanization is to replace an orthographic system that uses the Roman (Latin) alphabet for writing the words of a certain language by another writing system that is different yet based on the same alphabet. Traditional orthographies are often modified by reform proposals when the spelling of

languages is perceived as reflecting past stages of development rather than actual present day spoken language. Traditional English orthography (*Traditional Spelling of English*, TS) is an obvious such case of outdated spelling, which according to some research impedes the acquisition of literacy and efficient reading and spelling [10].

Systems like the 2002 *Basic Roman Spelling of English* (BR) [4] seek to re-Romanize the spelling for the purposes of academic research and education in general, both for native and non-native English speakers. In one such application, BR is adapted in the present work to serve as a phonetic alphabet for the pronunciation respelling of English. This new phonetic alphabet has no diacritics, and unlike the International Phonetic Alphabet [2] has no additional special characters.

The BR orthographic system could be arrived at from various starting points. One of these is the original construction [4], which makes use of an intermediary Cyrillic phonetic transcription of English words (possibly leaving the misleading impression that BR was somehow associated with or influenced by Bulgarian phonetics or orthography). Here we shall present another construction of BR starting from scratch, which provides a better introduction and explanation of the system.

2. Spelling Principles

Our first step is to formulate and substantiate the small number of basic principles that are inherent to the BR system.

2.1. Strict Romanization Principle: Use the basic Latin alphabet, with no additional characters or diacritics.

Traditional English orthography essentially adheres to this principle too, with minor exceptions involving loanwords from other languages. In the case of languages with Latin-based orthography employing diacritics, the mass practice of modern electronic communication (e-mail, instant messaging, short

message service etc.) overwhelmingly uses not the true alphabets but their corrupted versions stripped from all diacritical marks and special characters. Therefore, it is only natural to keep this felicitous advantage of English spelling, that it is e-communication friendly.

2.2. Consistency Principle: Use single-valued spelling, with no phoneme rendered by two or more graphemes.

In the orthodox English orthography one and the same phoneme is often spelled differently in different words. For instance, the consistency principle is extensively violated by the multiple-valued rendering of the English phonemes

/æ/, /e/, /eɪ/, /ɪ/, /iː/, /ɒ/, /aɪ/, /aʊ/, /oʊ/, /ə/, /uː/, /ɜː/

respectively in:

h**a**ve, s**al**mon;
r**e**d, j**eo**pardy, s**ay**s, g**ue**ss;
p**a**per, r**ai**n, w**ay**, **eigh**t, br**ea**k;
b**i**g, dam**a**ge, pr**e**tty, w**o**men, b**u**sy, m**y**th, b**ui**ld, marr**ia**ge;
f**ee**l, b**ea**ch, sh**ie**ld, perc**ei**ve, k**ey**, p**eo**ple;
t**a**ll, w**al**k;
n**i**ne, tr**y**, h**igh**, t**ie**, h**eigh**t, b**uy**, b**ye**, **eye**, **ais**le, s**ig**n;
out, n**ow**;
n**o**, kn**ow**, b**oa**t, s**ou**l, t**oe**;
ago, anth**e**m, awes**o**me, iridi**u**m, mount**ai**n;
m**oo**d, s**ou**p, j**ew**el, tr**ue**, l**o**se, fr**ui**t, thr**ough**;
f**i**rm, f**e**rn, t**ur**n, w**o**rst, **ear**th, **err**.

This list can easily be extended, as vowels, diphthongs, and consonants have multiple-valued grapheme presentation in numerous other instances.

In particular, the above examples demonstrate that the short vowels /ɪ/ and /ɒ/ are presented in TS by more than one single letter each, with as much as six single letters representing the former as in 'b**i**g', 'dam**a**ge', 'pr**e**tty', 'w**o**men', 'b**u**sy', and 'm**y**th'.

2.3. Proportionality Principle: Spell short vowels by single letters; spell long vowels and diphthongs by digraphs.

Orthodox English orthography defies the proportionality principle e.g. by using

'a', 'eigh' and 'aigh' for /eɪ/ as in 'p**a**per', '**eigh**t' and 'str**aigh**t';

'e' for /iː/ as in 'del**e**te';

'i' for /aɪ/ as in 'f**i**ne';

'o' for /oʊ/ as in 'n**o**';

'u' for /jʊ/ or /juː/ as in 'd**u**ty' and 't**u**ne';

'y' for /aɪ/ as in 'b**y**';

'ea', 'ai', 'ie', 'eo', 'ay', 'ue' for /e/ as in 'l**ea**ther', 's**ai**d', 'fr**ie**nd', 'j**eo**pardy', 's**ay**s', 'gu**e**ss';

'oo', 'ou' for /ʊ/ as in 'b**oo**k', 'sh**ou**ld';

'ou' and 'oe' for /ʌ/ as in 't**ou**ch', 'd**oe**s';

'ai' and 'ou' for /ə/ as in 'mount**ai**n', 'fam**ou**s';

etc.

It is worth mentioning the uniform presentation by the same single letters of pairs of 'short/long values' of vowels, such as the pairs /æ/-/eɪ/; /e/-/iː/; /ɪ/-/aɪ/; /ɒ/-/oʊ/; and /ʌ/-/jʊ/ (or -/juː/) in 'n**a**tional/n**a**tion', 'ser**e**nity/ser**e**ne', 'f**i**nish/f**i**nal', 'p**o**sture/p**o**se', and 'st**u**dy/st**u**dent'. These vowel alternations in stressed syllables have their origins in the Great Vowel Shift of Early Modern English, "the pivotal process of Modern English phonology" according to Chomsky and Halle [5].

Obviously, there are three possible ways of dealing with the Great Vowel Shift at orthography level. The first one would be to disregard it and keep the pre-Shift (now dual) usage of the letters 'a', 'e', 'i', 'o', and 'u', thereby preserving the spelling uniformity in relevant word families (such as the word pairs above) at the expense of phonemicity. That is precisely what the TS does. A technical advantage of this approach is that the presentation of 'long value' vowels by

single letters contributes to the brevity of TS, i.e. the lower grapheme to phoneme ratio in TS texts.

A second tactic – employed by *Interspel* [11] – would be to maintain the dual usage for the five single vowel letters, but indicate long vowels when necessary, especially for learners, with a diacritic, as in Interspel 'national/nàtion', 'repetition/repèt', 'finish/fìnal', 'impotent/pòtent', 'study/stùdent'. This approach, proposed for investigation by Valerie Yule, is discussed in greater detail below.

The third approach, prescribed by the proportionality principle and adopted by BR, would be to explicate the vowel shift by a corresponding spelling shift, to the effect of preserving phonemicity at the expense of the abovementioned uniformity of word families' spelling.

2.4. Context Freeness Principle: Spell diphthongs in accordance with the spelling of their components; spell long vowels either as diphthongs or by doubling the letters spelling the respective short vowels.

In other words, 'xy' renders /αβ/ if and only if 'x' renders /α/, and 'y' renders /β/. That is, whenever some letters 'x', 'y' represent respectively the short vowels /α/ and /β/, then the digraph 'xy' represents the diphthong /αβ/; also, 'xx' represents the long vowel /α:/. And conversely, whenever the digraph 'xy' represents the diphthong /αβ/, then 'x' and 'y' should represent the short vowels /α/ and /β/ respectively; and whenever 'xx' represents the long vowel /α:/, then 'x' should represent the short vowel /α/. (We have used here 'α', 'β' to denote both short vowels and related diphthong components. Sometimes the IPA notation uses slightly different shapes for that purpose, e.g. /ɪ/, /ə/, /ɒ/ but /i:/, /ɜ:/, /oʊ/, not /ɪ:/, /ə:/, /ɒʊ/, indicating that the respective pairs differ not only in length but also in quality.) The principle stipulates that if we represent

say /ɒ/ by 'o' (as in 'n**o**t') and /ʊ/ by 'u' (as in 'p**u**t'), then we always do that including in the diphthong /oʊ/ which is always represented by 'ou' as in BR 'n**ou**', 'b**ou**t', 's**ou**l', 't**ou**' (TS 'no', 'boat', 'soul', 'toe').

Unlike certain other languages or dialects such as Estonian, Finnish, Dutch, German, Frisian or Lombard, the traditional English orthography does not normally use double letters for the long vowels. The digraphs 'ee' and 'oo' are exceptions, and they represent /i:/, /u:/ and /ʊ/ (as in 'f**ee**l', 'm**oo**d' and 'b**oo**k'), not /e:/ and /ɔ:/ as it would have been the case if the context freeness principle explained above were applied.

In the case of digraphs used for diphthongs, TS violates the context freeness principle e.g. by the use of 'ai', 'ea' for /eɪ/ in 'm**ai**n', 'br**ea**k'. Indeed, the context freeness principle, and 'ai' representing /eɪ/ would have implied that 'a' represents /e/ which is not the case. Besides, 'ea' representing /eɪ/ would have implied by the context freeness principle that 'a' represents /ɪ/, which is not the case. Similarly, TS violates that principle by the use of 'ie', 'ei' for /aɪ/ in 't**ie**', '**ei**ther', because 'i' and 'e' do not represent /æ/ or /ʌ/; or by the use of 'oa', 'oe' for /oʊ/ in 'b**oa**t', 't**oe**' since 'a' and 'e' do not represent /ʊ/.

2.5. Universality Principle: Spell short vowels and consonants in a way that is common for the traditional orthography of most Romanized languages including English.

English spells consonants generally in a way common for the traditional orthography of most Romanized languages, with few exceptions like /ʃ/, /tʃ/ and /dʒ/. Whereas most Romanized languages are likely to pronounce 'a', 'e', 'i', 'o', and 'u' as in 'p**a**sta', 'ball**e**t', 'pol**i**ce', 'dep**o**t' and 'tab**u**', the corresponding English short vowels are as in 'c**a**t', 'p**e**t', 'b**i**g', 'f**o**g' and 'p**u**t'. The universality principle however refers to spelling not pronunciation. We shall discuss the spelling of

English vowels in greater detail below, drawing a comparison between the orthographic systems of BR [4] and Interspel [11].

We apply the above five principles to build from scratch the re-Romanization system of Basic Roman Spelling of English (BR) [4].

3.   Building BR Orthography from Scratch

The Basic Roman Spelling is aiming at a reasonably precise approximation of Spoken English, for which purpose we use 48 phonemes comprising the set of 45 English phonemes from [2], plus two rhotic variant phonemes, plus the non-English consonant /ts/.
This system is not to serve some particular standard of English pronunciation, but rather provide the means that could be used for the spelling of different varieties of English.

3.1. Short vowels

In accordance with the strict Romanization, consistency, proportionality and universality principles, we represent the short vowels

/æ/, /e/, /ɪ/, /ɒ/, /ʊ/

by

a, e, i, o, u

as in BR 'd**a**m', 'n**e**t', 'b**i**g', 'h**o**t', 'p**u**t' (TS 'dam', 'net', 'big', 'hot', 'put') respectively.

The proportionality principle dictates that this same set of letters be used for the representation of the short vowels /ə/ and /ʌ/ as well. In order to facilitate disambiguation we choose 'a' for /ə/, for /æ/ is more consistently reduced to /ə/ in unstressed syllables. The vowels /e/, /ɪ/ and /ɒ/ are not reduced to /ə/ e.g. in /en'dʒɔɪ/, /'ɑːtɪst/, and /ɒ'tɒrɪtɪ/, hence the representation of /ə/ by 'e', 'i' or 'o' would have increased ambiguity. As for the possible

representation of /ə/ by 'u', in view of the context freeness principle that choice would have created the ambiguity of both the diphthong /ʊə/ and the long vowel /u:/ being represented by 'uu', as in '**tuu**' representing both /tʊə/ and /tu:/ (TS 'tour' and 'too'). No such ambiguity arises with the chosen representation of /ə/ by 'a' as there is no /aə/ diphthong in English.

Given the intermediate position of /ʌ/ between /æ/ and /ə/, and the already fixed representation of both /æ/ and /ə/ by 'a', this dictates that /ʌ/ be represented by 'a' as well. Therefore, we represent the three short vowels

     /æ/, /ʌ/ and /ə/

by

     a

as in BR 'h**a**v', 'd**a**st', '**a**hed' (TS 'have', 'dust', 'ahead'). Let us stress that while the BR spelling does not distinguish between these three short vowels, 'a' is still pronounced differently in these three words; namely, BR 'h**a**v', 'd**a**st', '**a**hed' are pronounced /hæv/, /dʌst/ and /əhed/ respectively. (The more precise RPA alphabet in Section 6 below has different presentations for /æ/, /ʌ/ and /ə/.) BR spelling reflects the spoken language as the latter is, without hinting at, suggesting or advocating any pronunciation distortions whatsoever. In the case of homographs like e.g. BR spelling 'hat' for both /hæt/ and /hʌt/ (TS 'hat' and hut'), the relevant word and pronunciation would be differentiated from the context of the sentence.

3.2. Consonants

In accordance with the strict Romanization, consistency and universality principles we represent the consonant sounds

     /b/, /tʃ/, /d/, /ð̆/, /dʒ/, /f/, /g/, /h/, /x/, /k/,

/l/, /m/, /n/,
/ŋ/, /p/, /r/, /s/, /ʃ/, /t/, /θ/, /ts/, /v/, /w/, /j/, /z/, /ʒ/

by

b, ch, d, d, dzh, f, g, h, h, k, l, m, n,
ng, p, r, s, sh, t, t, ts, v, u, y, z, zh

respectively.

The English dental fricative consonants /θ/ and /ð/ (as in '**th**ink' and '**th**is') are somewhat problematic for many non-native English speakers who tend to pronounce /θ/ as /t/ or /s/, and /ð/ as /d/ or /z/. (A similar merger of /θ/ with /f/, and /ð/ with /v/ occurs in native English varieties such as Cockney, Newfoundland English, African American English, and Liberian English, making inroads into Estuary English too.) At the same time, while native English speakers tend to distinguish /θ/ and /ð/ in their spoken language, they write both with the same digraph, 'th' – and increasingly not caring about the spoken distinction. While we have opted to represent them in BR by 't' and 'd' respectively, in Section 4 below the system is extended to differentiate between these consonants.

3.3. Long vowels and diphthongs

The representation of long vowels and diphthongs is obtained by a straightforward application of the proportionality and context freeness principles. In the case of long /ɪ/ we take 'y' instead of 'i' as a second letter, following the pattern of the diphthongs /aɪ/, /eɪ/ and /ɔɪ/. Namely, we represent

/ɑː/, /iː/, /ɔː/, /uː/, /ɜː/

by

aa, iy, oo, uu, aa

as in BR 'f**aa**m', '**fiy**l', 's**oo**', 'm**uu**d', 'b**aa**ning' (TS 'farm', 'feel', 'saw', 'mood', 'burning'), and

/aʊ/, /aɪ/, /eə/, /eɪ/, /ɪə/, /oʊ/, /ɔɪ/, /ʊə/

by

au, ay, ea, ey, ia, ou, oy, ua

as in BR 'n**au**', 'tr**ay**', 'h**ea**', 'w**ey**', 'd**ia**', 'l**ou**', 'v**oy**s', 'p**ua**' (TS 'now', 'try', 'hair', 'way', 'dear', 'low', 'voice', 'poor') respectively.

The initial impression of BR spelling may well be one of 'inner city talk', unusual, and in any case un-TS – which of course it is. BR spellings like 'fiyl', 'soo', 'baaning', 'tray', 'hea', 'wey', 'dia', and 'lou' (TS 'feel', 'saw', 'burning', 'try', 'hair', 'way', 'dear', and 'low') may well appear either too dissimilar to present TS forms or confusing in their similarity to contradictory TS conventions. This is the place to remind and stress that BR derives from Spoken English, and from traditional spelling patterns in the wider family of Romanized languages. Furthermore, BR is self contained; it neither derives from TS, nor is it designed with a view to a step-by-step transition from TS to some reformed English spelling. Similarity to TS is sought at the basic level only, when choosing the representation of consonants and vowels as in the case of 'sh', 'ch', 'y' (and 'j', 'w' in Section 4 below). Once that representation is fixed, then because of the inconsistent nature of TS the two orthographies could be expected to be confusingly contradictory in many cases. We are not concerned about that, for BR is intended for independent usage rather than in combination with TS; texts in BR are certainly not supposed to be read as if written in TS. For instance, once we fix 'o' for /ɒ/ as in BR 'b**o**ks' (TS 'box'), then we use 'oo' for /ɔ:/ as in BR 's**oo**' (TS 'saw'), not bothering that TS uses 'oo' for /ʊ/ or /u:/ instead, as in 'b**oo**k' and 'm**oo**d'.

The obtained BR system uses 22 Roman letters (the letters 'j', 'q', 'w' and 'x' are not used), with no special characters or diacritical marks. The chosen representation of short vowels, together with the derivative representation of long vowels and diphthongs it entails, contributes most to shaping the characteristic features that distinguish BR from TS, Interspel, and other orthographic systems such as those discussed in Section 7 below.

4. Extensions and variants

4.1. Rhotic variety

Rhotic dialects are accommodated by appending 'r' to the relevant non-rhotic graphemes, so that /ɚ/, /ɝ/ are rendered by 'ar' and 'aar' respectively [4], as in BR 'tiycha', 'paasiyv' becoming 'tiych**ar**', 'p**aar**siyv' (TS 'teacher', 'perceive').

4.2. Dental fricatives

Traditional English spelling represents both dental fricative consonants /θ/ and /ð/ by 'th' as in '**th**ink' and '**th**is', and dialects may vary in which words are pronounced with what. BR differentiates between the two, but spells /θ/ same like /t/, and /ð/ same like /d/. Seeking to expand BR as near to one-to-one phoneme-grapheme correspondence as possible, one may consider a version of the system using 'th' for /θ/, and 'dh' for /ð/ [4], as in '**th**ink', '**dh**is' instead of BR '**t**ink', '**d**is' (TS 'think', 'this').

4.3. 'w' vs. 'u'

The BR system could also be extended by spelling the consonant /w/ (as in '**w**e', 'q**u**een') by 'w' instead of 'u' [4]. This extended system provides for a possible variant using 'uw' instead of 'uu' for /u:/ as in 'm**uw**d' instead of BR 'm**uu**d' (TS 'mood'), which however we do not take as standard.

4.4. 'j' vs. 'dzh'

The BR orthographic system could be further extended by using the grapheme 'j' instead of 'dzh' for /dʒ/, as in '**j**oy' instead of BR '**dzh**oy' (TS 'joy') – a compact and traditional English spelling pattern [4].

We call *Extended Basic Roman Spelling of English* (EBR) the 24-letter system (the letters 'q' and 'x' are not used) obtained from BR by incorporating all the extensions given in 4.1-4.4.

Therefore, we consider two systems here: the simpler BR, and the more elaborate EBR. The former is the system originally introduced in [4], while the options for an extended system were discussed in that work too. The better choice between these two systems would derive from one's preference for the precision of the system, or for its simplicity in using the available Roman letters and letter combinations instead.

5. Phonemicity

While the present approach is essentially phonemic, the introduced orthography falls short of establishing a one-to-one correspondence between phonemes and graphemes; hence it could be described as semi-phonemic at word level. It indicates the approximate rather than precise pronunciation of individual words. In addition to the homophones now receiving identical spelling, more homographs are created by the presentation of /æ/, /ʌ/ and /ə/ by one and the same letter.

At textual level however, readers could retrieve the relevant word from among several homographs by taking into account the context of the sentence. Therefore, writing in BR is context-free, while reading is context-dependent. This property may possibly allow for the automated conversion of texts from BR into traditional spelling.

6. Roman Phonetic Alphabet for English

The BR orthography is close enough to one-to-one phoneme-grapheme correspondence, which makes it possible to engender one by means of a minor adaptation. We start from the full extended system EBR, then add stress marks as appropriate for a transcription system, and use them both to indicate stress and to disambiguate homographs as follows.

As shown in the table below, we take the unstressed

'a' to represent /ə/, and use two primary stress marks
"'' and "'', and two secondary stress marks ',' and ',,',
with 'a' in syllables stressed by "'' or ',' representing
/æ/, and 'a' in syllables stressed by "'' or ',,'
representing /ʌ/. This convention is extended to the
two relevant long vowels /ɑ:/ and /ɜ:/ too, taking into
account that the latter may occur in unstressed as
well as stressed position. Namely, we take 'aa' in
syllables stressed by "'' or ',' to represent /ɑ:/, and 'aa'
in syllables that are either unstressed or stressed by
"'' or ',,' to represent /ɜ:/. In short, the set of stress
marks "'', ',' is used in the case of /æ/ and /ɑ:/, while
the stress marks "'', ',,' are used in the case of /ʌ/ and
/ɜ:/. Stress marks are placed before the syllable
concerned (i.e. not necessarily next to the relevant
vowel as in the table below).

For instance, the BR homographs 'hat' (IPA /hæt/,
TS 'hat') and 'hat' (IPA /hʌt/, TS 'hut') are
differentiated now to become RPA /'hat/ and /"hat/
respectively; the BR homographs 'faam' (IPA /'fɑ:m/,
TS 'farm') and 'faam' (IPA /'fɜ:m/, TS 'firm') become
RPA /'faam/ and /"faam/ respectively, etc.

While the use of the same letter for distinct sounds
differentiated by stress marks may not be very user
friendly, the insufficient number of Roman letters
leaves few available alternatives: either diacritics (and
our use of additional stress marks plays the same
role); or additional diphthongs (such as 'ae', 'ao' in
[7]), or special characters (as in IPA). The spelling
principles given in Section 2 above would rule out all
these options. Indeed, the strict Romanization
principle rules out the first and the third one, while
the proportionality and context freeness principles
rule out the second option (which is uneconomic in
terms of text volume too). However, we are dealing
now with phonetic transcription rather than spelling,
and transcriptions normally allow for some use of
stress marks.

We add also a distinct digraph, 'hh' to represent the Scottish consonant /x/ as in 'loch'.

This way we obtain a phonetic (or more precisely, phonemic) system for the transcription of English words, the *Roman Phonetic Alphabet for English* (RPA). This new system is presented below in a table based on the standard *International Phonetic Alphabet* (IPA) transcription system for English from [2]; we write also BR for 'Basic Roman Spelling of English', EBR for 'Extended Basic Roman Spelling of English', and TS for 'Traditional Spelling of English':

IPA	BR	EBR	RPA	TS vs. RPA vs. Interspel, as in:
ɪ	i	i	i	city /ˈsiti/ sity
e	e	e	e	red /red/ red
æ	a	a	ˈa, ˌa	handbag /ˈhandˌbag/ handbag
ʊ	u	u	u	put /put/ put
ʌ	a	a	″a, „a	luck /″lak/ luk homerun /ˈhoumˌˌran/ hòm run
ɒ	o	o	o	not /not/ not
ə	a	a	a	adapter /aˈdapta/ adapter
ɚ	ar	ar	ar	adapter /aˈdaptar/ *(rhotic)*
iː	iy	iy	iy	feel /fiyl/ fèl
ɑː	aa	aa	ˈaa, ˌaa	farm /ˈfaam/ farm wildcard /ˈwayldˌkaad/ wìld card

ɜː	aa	aa	aa, ″aa, ,,aa	fur /″faa/ fur sunburn /″san,,baan/ sunburn perceive /paa′siyv/ persèv
ɝ	aar	aar	′aar; ,,aar; aar	fur /″faar/ sunburn /″san,,baarn/ perceive /paar′siyv/ *(rhotic)*
uː	uu	uu	uu	mood /muud/ mood
ɔː	oo	oo	oo	saw /soo/ saw
eɪ	ey	ey	ey	day /dey/ day
aɪ	ay	ay	ay	life /layf/ lìf
ɔɪ	oy	oy	oy	toy /toy/ toy
ɪə	ia	ia	ia	here /hia/ here
eə	ea	ea	ea	fair /fea/ fair
oʊ	ou	ou	ou	no /nou/ no
aʊ	au	au	au	out /aut/ out
ʊə	ua	ua	ua	tour /tua/ toor
p	p	p	p	pen /pen/ pen
t	t	t	t	top /top/ top
k	k	k	k	kid /kid/ kid
b	b	b	b	bit /bit/ bit
d	d	d	d	desk /desk/ desk
f	f	f	f	fix /fiks/ fix or fiks

v	v	v	v	voice /voys/ vois
s	s	s	s	sea /siy/ sè
z	z	z	z	zoo /zuu/ zoo
m	m	m	m	may /mey/ may
n	n	n	n	net /net/ net
r	r	r	r	red /red/ red
l	l	l	l	link /link/ link
w	u	w	w	west /west/ west
h	h	h	h	how /hau/ how
g	g	g	g	go /gou/ go
ts	ts	ts	ts	tsar /tsaa/ tsar
tʃ	ch	ch	ch	choice /choys/ chois
θ	t	th	th	think /think/ think
ʃ	sh	sh	sh	ship /ship/ ship
x	h	h	hh	loch /lohh/ lohh *(Scottish)*
ŋ	ng	ng	ng	sing /sing/ sing
dʒ	dzh	j	j	joy /joy/joy
ð	d	dh	dh	this /dhis/ this
ʒ	zh	zh	zh	measure /mezha/ mezùr
j	y	y	y	you /yu/ u

7.   Illustration and Comparison

Some similarities could be observed between RPA and the systems of the NBC Handbook of Pronunciation [1], the Carnegie Mellon version of Arpabet alphabet [7], and the World Book Dictionary [8]. Instead of the widely unfamiliar IPA symbols, these systems provide for the pronunciation respelling of English by means of the plain Roman alphabet with no diacritics or special characters. To make up for the insufficient number of Roman letters, these transcription systems use 'h' as a second letter not only in digraphs representing consonants like 'ch', 'sh', 'th', and 'zh' as in TS, EBR and RPA, but also to fix or alter the phonetic value of vowels in new digraphs such as 'ih', 'eh', 'oh', 'uh' and 'ah'. Unlike the Roman Phonetic Alphabet which is closely related to Extended Basic Roman Spelling, the systems in question derive from certain traditional spelling patterns, with Arpabet being specifically designed to provide straightforward machine readability.

The design of Interspel [11] on the other hand is an attempt to apply consistent principles to English spelling for international use, while retaining the greatest possible similarity to TS. Interspel has three levels: (1) alphabetic sound-symbol correspondence for initial learning and pronunciation guide in dictionaries; (2) plus four modifications for writing: for visual representation of grammar and morphemes; consistent spelling patterns for final vowels; and retention of irregular TS spellings for around thirty of the most common English words, so that the hundred most common words, which make up 'half the words you read' in English text, will be unchanged in appearance; and (3) eight further alternative vowel spellings are added as options, to produce 'reading without traps', the level closest to TS. Machine readability is by algorithms, except for level (1) where the plain alphabetic principle applies.

In Interspel, English 'short' and 'long' vowels are both represented by the primary vowel letters 'a', 'e', 'i' , 'o', 'u', but the long version can be differentiated

as needed with a diacritic, as shown in word pairs with vowel alternations, as in 'national/nàtion', 'repetition/repèt', 'finish/fînal', 'impotent/pòtent', 'study/stùdent'. While diacritics are increasingly dropped in modern alphabetic writing systems, their optional use for this particular purpose could benefit learners and fast visual word recognition of vocabulary that is similar across many modern languages. That is, Interspel tries to apply more consistently what Chomsky sees as an advantage of TS – the common visual appearance of related words with so-called 'underlying phonology', while seeking to ensure phonemicity by allowing some diacritics (in disregard of the strict Romanization principle). By contrast, the BR offers a wider international perspective transcending Chomsky's defense of TS.

By way of comparison and illustration of these two alternative approaches, we append a brief text in Traditional Spelling, BR, EBR, RPA and Interspel, as well as in World Book Dictionary [8] transcriptions. The reference text used by Valerie Yule to compare various alternative spellings is 'The Story of the Beautiful Princess', which contains most of the English phonemes and a number of irregular TS spellings:

Once upon a time, the beautiful daughter of a great magician wanted more pearls to put among her treasures. "Look through the centre of the moon when it is blue," said her royal mother in answer to her question. "You might find your heart's desire." The fair princess laughed, because she doubted these words. Instead, she used her imagination, and moved into the photography business, and took pictures of the moon in colour. "I perceive most certainly that it is almost wholly white," she thought. She also found that she could make enough money in eight months to buy herself two lovely huge new jewels too.

Basic Roman spelling (non-rhotic version):

Uans apon a taym, da byutiful doota av a greyt madzhishan uontid moo paalz tu put amang haa

trezhaz. "Luk tru da senta av da muun huen it iz bluu," sed haa royal mada in ansa tu haa kueschan. "Yu mayt faynd yoo haats dizaya." Da fea prinses laaft, bikoz shi dautid diyz waadz. Insted, shi yuzd haa imadzhineyshan, and muuvd intu da fotografi biznis, and tuk pikchaz av da muun in kala. "Ay paasiyv moust saatanli dat it iz olmoust houli wayt," shi toot. Shi olsou faund dat shi kud meyk inaf mani in eyt mants tu bay haaself tuu lavli hyudzh nyu juualz tuu.

Extended Basic Roman spelling (non-rhotic version):

Wans apon a taym, dha byutiful doota av a greyt majishan wontid moo paalz tu put amang haa trezhaz. "Luk thru dha senta av dha muun hwen it iz bluu," sed haa royal madha in ansa tu haa kweschan. "Yu mayt faynd yoo haats dizaya." Dha fea prinses laaft, bikoz shi dautid dhiyz waadz. Insted, shi yuzd haa imajineyshan, and muuvd intu dha fotografi biznis, and tuk pikchaz av dha muun in kala. "Ay paasiyv moust saatanli dhat it iz olmoust houli wayt," shi thoot. Shi olsou faund dhat shi kud meyk inaf mani in eyt manths tu bay haaself tuu lavli hyuj nyu juualz tuu.

Roman Phonetic Alphabet transcription (non-rhotic version):

″Wans a′pon a taym, dha ′byutiful ′doota av ″a greyt ma′jishan ′wontid moo ″paalz tu put a″mang ″haa ′trezhaz. "Luk thru dha ′senta av dha muun hwen it iz bluu," sed ″haa ′royal ′madha in ′ansa tu ″haa ′kweschan. "Yu mayt faynd yoo ′haats di′zaya." Dha fea ′prinses ′laaft, bi′koz shi ′dautid dhiyz ″waadz. Insted, shi yuzd ″haa i,maji′neyshan, and muuvd intu dha fo′tografi biznis, and tuk ′pikchaz av dha muun in ″kala. "Ay paa′siyv moust ″saatanli ′dhat it iz olmoust houli wayt," shi thoot. Shi olsou faund ′dhat shi kud meyk i″naf ″mani in eyt ″manths tu bay haa′self tuu ″lavli hyuj nyu ′juualz tuu.

World Book Dictionary [8] transcription (rhotic):

Wuhns uh′pon uh tym, thuh ′byootihfuhl ′dawtuhr
uhv uh grayt muhjihshuhn wontihd mawr purlz tu
put uh′muhng hur ′trehzhuhrs. "Luk throo thuh
′sehntuhr uhv thuh moon hwehn iht ihz bloo," sehd
hur ′royuhl ′muhthuhr ihn ′ansuhr tu hur
′kwehschuhn. "Yoo myt fynd yur hahrts dih′zyr."
Thuh fair ′prihnsehs lafd, bih′kawz shee dowtihd
theez wurdz. Ihn′stehd, shee yoozd hur
ih,majuh′nayshuhn, and moovd ′ihntoo thuh
fuh′togruhfee ′bihznihs, and tuk ′pihkchuhrz uhv
thuh moon ihn ′kuhluhr. "Y puhr′seev mohst
′surtuhnlee that iht ihz ′awlmohst ′hohlee hwyt,"
shee thawt. Shee ′awlsoh fownd that shee kud mayk
ih′nuhf ′muhnee ihn ayt muhnths tu by hur′sehlf too
′luhvlee hyooj nyoo ′joouhls too.

In Interspel [11] by Valerie Yule thirty of the most
common English words remain unchanged, and
final vowel spelling patterns are made consistent in
order to maintain close resemblance and backward
compatibility to traditional spelling. Here is its
application to 'Writing without traps':

Once upon a tìm, the bùtiful dauter of a gràt
magisian wonted mor perls tu put amung her
tresùrs. "Luuk thru the senter of the moon wen it is
blu," sed her royal mother in anser to her qestion.
"U mìt fìnd yur harts dezìr." The fair prinsess lafd,
becaus she douted thès wurds. Insted, she ùsed her
imajinàsion, and mùved intu the fotografy biznes,
and took pictùrs of the moon in culer. "I persèv
mòst sertinly that it is almòst hòly whìt," she thaut.
She also found that she could màk enuf muny in àt
months to bì herself tuw lovly hùj nu jùels too.

With a few alternative spellings admitted, this
becomes 'Reading without traps for learners', even
closer to TS but more consistent:

Once upon a time, the bùtiful dauter of a gràt
magisian wonted mor perls tu put amung her
tresùres. "Luuk thru the senter of the moon when it

is blue," sed her royal mother in anser to her question. "U might fìnd yur hart's dezire." The fair prinsess lafd, becaus she douted these wurds. Insted, she ùsed her imajinàtion, and mùved intu the fotografy bizness, and took pictùrs of the moon in culer. "I perseve mòst sertinly that it is almòst hòly white," she thaut. She also found that she could make enuf muny in ait months to bì herself tuw lovly huje new jùels too.

Here then, are two approaches to the problems of traditional English spelling. The Interspel notation applies a set of phonemic-morphemic-pragmatic principles to enable learners internationally to progress from initial sound-symbol correspondence to a consistent English writing system and ability to read present English spelling 'without traps', so that our present English heritage of print remains accessible. Its details are subject to experimental research on its usefulness. On the other hand, the Basic Roman approach is applied to produce both an internationally flavoured alternative English orthography, and a related pronunciation respelling of English.

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