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Christopher Upward

ENGLISH SPELLING:
THE NEED FOR A PSYCHO-HISTORICAL PERSPECTIVE

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Note on th spelng used in this paper

To ilustrate a point made in its conclusion, this paper is ritn in Cut Spelng (CS), a simplifyd orthografy wich cuts redundant letters by 3 rules:

- 1 CS cuts letrs irelevnt to pronunciation: *debt* becomes CS *det*.
- 2 CS cuts letrs representng post-accentul schwa with L, M, N, R: *bottle*, *bottom*, *button*, *butter* becom *bottl*, *bottm*, *buttn*, *buttr*; it also cuts vowel-letters in inflections and some suffixs: *washd*, *washng*, *washes*, *washbl*.
- 3 CS simplifys most dubld consonnts: *bottl*, *bottm*, *buttn*, *buttr*, *accommodation* becom *botl*, *botm*, *butn*, *butr*, *acomodation*.

Aditionly, 3 rules of letr-substitution aply:

- 1 Th sound /f/ is spelt F: *fotograf*, *enuf*.
- 2 Th sound of /j/ is spelt J: *jinjr*, *juj*.
- 3 IG pronounced as long /i/ is spelt Y: *sigh*, *sight*, *sign* becom *sy*, *syt*, *syn*.

CS also reduces th use of capitl letrs and apostrofes.

Readrs unfamiliar with CS shud try to ignor unusul spelngs until, with practis, readng becoms fluent.

A ful acount of CS is givn in *Cut Spelling: a handbook to the simplification of written English by omission of redundant letters*, Birmingham: Simplified Spelling Society, 2nd (revised and expanded) edition 1996.

English Spelling: The Need for a Syco-Historical Perspective

Christopher Upward

1. Themes and their interpretation: an outline of this paper

This paper arises from a presentation entitled ‘The Development of English in Spelling: applying past lessons to the future’, given at the 31st Annual Conference of the United Kingdom Reading Association (UKRA) in July 1994. The themes of the conference were announced as 1) the development of English, 2) the demands of a literate society, 3) literacy and language, 4) knowledge about language, and 5) literacy difficulties of children and adults, to which the present author adds, by way of conclusion to his paper, 6) the future. The approach to be adopted to these themes was outlined as follows.

Regarding “the development of English”, a historical view of the problems of modern English spelling is argued to be essential. The alphabet is a key invention of human civilization, yet over the past 900 years English has carelessly frittered away its main advantages. We have to understand how a situation has arisen which has been aptly described as “one of the world’s most awesome messes” (Pei, 1968).

As to the “demands of a literate society”, these are fundamentally two. One is that when people see a written word, they should be able to tell what it says; and the other is that when they wish to write a word, people should be able to do so in a manner acceptable to any reader. If these two demands are not met, none of the more sophisticated demands of a literate society can be fully met either. The ability to decode and encode any English word from and into its written form is the foundation for all education.

“Language and literacy” implies understanding the psychology of alphabetic writing systems, and judging the English writing system (i.e., its spelling) in that light, in the process dispelling some of the myths that are commonly woven around the subject in English-speaking countries at the present time.

“Knowledge about language” concerns how languages are written down, that is, their writing systems, and how these can help or hinder literacy. Specifically, it means knowledge of the obstacles which the present misuse of the alphabet creates for literacy in

english. For it is imposbl to be as litrat in english as in, say, italian, spanish, or jermn.

Th fifth theme “litracu difictis of children and adlts” brings togethr th four previus themes, wich hylt and explain th “cognitiv confusion” (Vernon, 1957) children and adlts alike experience wen faced with ritn english.

Th conclusion drawn is that we shud not just accept these litracu difictis as inherent in english, but examn how they can be overcome. Theorists and teachng methodolojists tend to look for ansrs in th lernrs themselvs and in new aproachs to teachng, th latr recently asociated with such terms as hole languaj, real books, look-and-say, readng recovry and fonics. Yet this paper wil atemt to sho that th problm lies not in th lernrs, nor, primarily, in teachng methods. Th problm and its solution lie, it wil be sujetd, not so much in how lernrs aproach litracu aquisition in english, but rathr in wat ther task consists of. For ther task is both absurd, and, as a british govmmnt report (Cox 1989) admitd, ultmatly imposbil.¹ It is in our hands to make that task mor manajbl than it is today, by developng a riting systm that is mor user-frendly, and abov al mor lernr-frendly.

fig 1 *Themes and ther interpretations*

GIVN THEMES	INTERPRETATION
1. <i>development of english</i>	<i>from (relativ) ordr to (relativ) caos</i>
2. <i>demands of a litrat society</i>	<i>to encode and decode ANY word</i>
3. <i>litracu and languaj</i>	<i>alfabet as syclogicl cornrstone</i>
4. <i>nolej about languaj</i>	<i>english spelng as handicap</i>
5. <i>litracu difictis of children & adlts</i>	<i>cognitiv confusion</i>
6. <i>th futur</i>	<i>need to reduce confusion</i>

¹ Th ‘Cox Report’ (*English for ages 5 to 16*, 1989) was th final documnt of th National Curriculum English Working Group set up undr th chairmanship of Professor Brian Cox in 1988 to prepare th National Curriculum for English. It stated (§17.33) that “the aim cannot be the correct unaided spelling of any English word — there are too many ... that can catch out even the best speller”.

2. Appreciating th difictis

It is hard for litrat adlts to appreciate th dificltly faced by th lernr in english, because they hav mostly forgotn wat it was like to try and make sense of th way english words ar representd in riting. For litrat adlts, readng and riting ar larjly autmatic and, at least with evryday vocablry, insuperabl difictis ar rare. But specialized vocablry is anothr matr, and even in our evryday encountrs with ritn english, ther ar certn areas wher al of us ar liabl to stumbl. Considng these hazrds may help us both empathize and sympathize with lernrs, for hom evryday english spelngs ar no less perplexng.

One such danger zone is th spelng of names, of both peple and places. Let us look at a smal sampl of english place names, and imajn we hav to telephone details of an itinry to a foren visitr. Such wel-nown freaks as *Gloucester* and *Reading* wil be ignord here on th asumtion ther spelng and pronunciation ar nown (tho th *Reading Centre* at th University of *Reading* embodis an apropriatly cruel trap, being concernd with *reading*). Th recmendd tour for our foren visitr starts at *Warwick*, hos pronunciation is shown on th motorway syn as rymng with *historic*. That may require some explnation, especialy if our visitrs ar americns ho most likely sound th two syllabis as WAR-WICK. Next stop is th litl town of *Towcester*, wich sounds like *toaster*, tho th inocent stranjer is likely to read it as tho spelt TOE-SESTER, TOUSESTER or TOUSTER. Th rute then piks up th corse of th rivr *Nene* by Northamtn, wher it is pronounced as tho spelt *NENN*, but by th time it reaches Peterboro th rivrs name has conformed to its spelling — tho NEEN wud be clearr stil. We continu east to *Wisbech*, hos B-E-C-H is in oriyn th same word and has th same pronunciation as th B-E-A-C-H of nearby *Holbeach*. Next coms *Grantham* in Lincnshr, hos TH is th same digraf as herd in *anthem* and dos not reflect th structur GRANT+HAM; but a detour to *Gotham* in Notngmshr provides th reverse readng of TH with sepatr valus (or rathr with elided H), as tho spelt GOATM. Cutng across cuntry to th northwest, we recmend *Blackley* in Manchestr, wich sounds like BLAKELEY, folod by Yorkshrs *Keighley* with its uniqe pronunciation of th jenrly weird grafeme GH, as tho it wer TH. Our destnation, th climax of our orthografic mystry tour, is up in th northeast, th district of — how shud we read it? — L-A-N-G-B-A-U-R-G-H. A by-election held ther a few years ago left th media as unsure how to cal th place at th end of th campain as they had been at th start.

fig 2 Orthographic mystery tour of England

<i>(historic) Warwick</i>	UK /wɒrɪk/	US /wɑːwɪk
<i>Towcester</i>	/toːstə/	
<i>Nene</i>	/nɛn/?	/nɪːn/?
<i>Wisbech (Holbeach)</i>	/wɪzbiːʃ/	
<i>Grantham, Gotham</i>	/græneə̃m/	/goːtə̃m
<i>Blackley</i>	/bleːkli/	
<i>Keighley</i>	/kiːəli/	
<i>Langbaurgh</i>	/læŋbɑːf/?	

Natrly, in foning al these names to our foren visitrs, we chek them in th dictionris (eg, Pointon, 1990; Wells, 1990), but they may wel giv alternativ pronunciations, or pronunciations that disagree with wat th locals say. Th dictionry pronunciation for our final destnation sujests th spelng LANGBARF, but nobody seemd to pronounce it so in th election, wen th herd variants sujestd spelngs like LANGBAU, LANGBAR, LANGBURGH insted.

Sevrl obsrvations folo from this orthografic mystery tour. Th most obvius is that, wen litrat english-speakng adlts canot tel how to read such names, it is english spelng that is to blame for preventng th excrcise of a basic litracy skil. This dificlty of english spelng is compoundd for strangers ho ar mor usury unfamiliar with th place names concernd — a point nicely made by a recent newspaper cartoon² wich showd a begr on a Londn street ofrng an americon tourist th corect pronunciation of *Leicester Square* for th price of 75p. Non-nativ speakrs, ho ar jentrly even less familir with th varying patrn of sound-symbll corespondnce in english, face particulr dificlty, tho it is ironic that ther mispronunciations shud so ofn be greetd with supercilious mirth by nativ speakrs wen th latr ar themselvs scarcely less vulnrbi to th vagaris of english spelng.

A secnd obsrvation concerns th way many dictionris try to overcom this opacity of english spelng. If, in ordr to find out how to pronounce a word hos spelng we ar unable to decode, we look it up in a dictionry, we ar then very likely confrontd by th exotic symbis of th Intrnational Fonetic Alfabet (IFA). Peple ho do not no how to pronounce th GH in *Keighley* ar thus

² Th cartoon apeard in *The Guardian* on 25 july 1994, 2, p8.

expected to know the Greek letter theta and its sound value — or at least to hunt them down in a table elsewhere in the dictionary. One is bound to ask what proportion of dictionary users are assumed by dictionary makers to be conversant with the IPA, or to be willing (or able) to take the trouble to search for the key. The inconvenience of dictionaries in this respect is highlighted by a typical bilingual Spanish-English dictionary (Smith, 1971), where every English word has its pronunciation separately shown in IPA symbols, while the Spanish pronunciations are transparent from their normal spelling. Similarly, one German-English dictionary (Collins, 1991) says “German pronunciation is largely regular, and a knowledge of its basic patterns is assumed” (what is meant here is of course not that German pronunciation is largely regular, but that German patterns of sound-symbol correspondence are).

Our main lesson from the orthographic mystery tour, however, is that the problems literate adults experience with such place names are precisely the problems that learners experience with the basic vocabulary of the English language. Listed in *fig 3* below are 57 words from among the 200 most commonly occurring in English, yet the reading and spelling of each one is to beginners as unpredictable as those place names were for literate adults. They are unpredictable in the sense that in crucial respects the letters they contain do not tell the reader how to pronounce them, nor the writer how to spell them. (The words of Germanic origin are listed separately to refute the claim by a noted literacy specialist that Germanic derivations have “basically phonemic spellings”. Such fundamental misconceptions as to the nature of English spelling are no rarity.)

fig 3 Beginners mystery tour of written English

57 aberrant spellings among the 200 commonest English words
52 aberrant spellings in words of Germanic derivation: <i>of, to, was, have, are, which, you, they, were, there, one, all, their, would, when, who, more, said, what, some, only, could, two, other, do, any, should, before, where, many, your, work, know, might, through, own, here, great, come, again, though, thought, right, world, while, against, does, always, young, why, once, nothing</i>
5 aberrant spellings in words of French derivation: <i>Mr, people, (be)cause, course, government</i>

Provided we can detach ourselves from the appearance of normality that these spellings inevitably have for literate, English-speaking adults, the difficulty they present for beginners is evident. For instance, the most common word in the list, *of*, suggests the pronunciation of *off*, and the next most common suggests the pronunciation of *toe*. Particularly notorious among teachers is *once*, which beginners commonly mispronounce as though spelt ONKI. But over and above these 57 exceptionally irregular forms, there are many, many others among the 200 commonest words which contain less unpredictability, such as the vowel in *first* or *most* or *good* or *few*, or the fact that *as* has a different S-sound from *us*, or that the E in *time* and *little* is silent.

3. The alphabetic principle: a case study in B

To understand the cause and the cure for these difficulties, we need to go back to the origins of the alphabet. The general way in which most of our letters came down to us can be illustrated from the development of the letter B (as told by Healey, 1990).

The symbols of Egyptian hieroglyphics originated a good 5,000 years ago, typically as pictographic representations of visible phenomena. Thus a rectangle with a gap in its lower side represented the ground plan of a one-room house with a doorway. As the word for *house* was pronounced with the consonants /p-r/, the symbol could be taken to stand for those sounds as well as for the word meaning *house*.

Egyptian hieroglyphics:  = /p-r/ = *house*

This correspondence between the symbol and the consonants of a particular word allowed the same symbol to be used also to represent the same consonants occurring in different words. In this way, Egyptian hieroglyphics, despite its vividly pictographic appearance, operated to a considerable extent as a phonographic writing system, i.e. one that represented the sounds of words. It could, however, not yet be described as an alphabet, because there were still hundreds of such symbols, and they were not consistently used to represent sounds unambiguously.


The next, crucial stage came around 3,700 years ago, and was initiated by Semitic peoples living in the zone of Egyptian influence. In their Semitic languages the word for *house* was, approximately, *bet* or *beth*, and to represent it, they took the hieroglyphic rectangle symbolizing *house* in Egyptian, and used it to represent no longer the whole word for *house*, but only the first consonant,

wich was /b/, in their quite different pronunciation of the word. This process of representing the initial sound of a word is known as ‘acrophony’. These Semitic peoples then used the same symbol (simplified to four asymmetrical strokes from the symmetry of five in hieroglyphics) consistently to represent the single consonant phoneme /b/ wherever it occurred in their language.


semitic acrophony:  = /b/

So was invented the alphabetic principle, that each sound should be written consistently with its own symbol, with that symbol conversely always standing for the same sound. (Incidentally, the word *bet(h)* survives in modern English as the final syllable of our *alphabet*, as well as Hebrew place names such as *Bethlehem*.)

The shape of the letter B subsequently passed through several stages before achieving the form we know today. Thus the Phoenicians cursive-ized the previously rectangular box:

Phoenician, c. –1000  = /b/

and early Greek right-to-left writing doubled the loop, perhaps to prevent confusion with other similarly shaped Phoenician letters, though an alternative origin for the Greek letter has been proposed (Bernal, 1990)³:

Archaic Greek, c. –700 *beta*  = /b/

When classical Greek finally, by around the –6th century, fixed upon the modern western left-to-right direction of writing, many letters, including *beta*, were reversed, so producing today's form **B**.

The significance of this whole evolution was that the alphabetic principle once established, was observed throughout, with the B symbol consistently retaining the sound-value /b/, and that sound-value being consistently represented by that symbol. In the same way, most of the letters of our alphabet were designed to correspond unambiguously to a given sound and vice versa. The alphabetic

³Bernal suggests that the double loop of Greek *beta* may derive from a different Semitic letter altogether; but that does not affect the argument presented here.

principle represented an enormous advance over earlier writing systems, such as Egyptian hieroglyphics or Mesopotamian cuneiform, as it allowed the whole language to be written down by means of a couple of dozen letters, which could be quickly learned and easily used. It is not surprising that by the early Christian era the cumbersome, complex hieroglyphic script fell into disuse, and indeed that alphabets have today prevailed throughout most of the world.

However, the real secret of the alphabet's success is cyclical: it is based on the simple yet systematic visual representation of speech, which is the primary manifestation of language in human consciousness. The weakness of hieroglyphics was that it failed to integrate the visual dimension systematically with the spoken, a failure that is, fundamentally, also the weakness of modern written English today. That is why there are in English-speaking education circles today endless, and ultimately fruitless, arguments as to whether, in considering literacy in English, it is the visual aspect that should have primacy over the auditory in the teaching/learning process, or vice versa. If written English observed the alphabetic principle there would be no basis for such arguments, as the visual and auditory dimensions would simply be two sides of the same coin.

Nevertheless, as the alphabet spread from one language to the next, from Phoenician to Greek, and from Greek to Latin, and from Latin to English, maintaining the alphabetic principle was not always a simple matter, indeed a variety of complications could arise. Thus, if one language adopted the alphabet wholesale from another, it was sometimes difficult to identify the same phonemes in the new language, and the sound-values of the letters therefore sometimes did not quite fit the original alphabetic scheme. Furthermore, when vocabulary was borrowed from another language, it was not obvious whether its foreign spelling should be borrowed too, especially if the pronunciation of such vocabulary was different in the borrowing language. A separate problem was that, even without borrowing from one language to another, words often change their pronunciation in the course of time, and when that happens, the original spelling may cease to show the sound of a word according to the alphabetic principle. In such circumstances, a language may consider it appropriate to preserve the spelling of words as they were borrowed or as they had formerly been used. Finally, unless the spelling of a language is subjected to critical scrutiny by authorities who understand the facts involved, the written form of words may be determined by historical accident, carelessness, or even crass ignorance.

These difficulties lie at the heart of the English spelling problem, as can be seen from the letter B in the following examples, where the silent B in English is compared with its occurrence or non-occurrence in related words in the same

languages, German and French. The B in *dumb*, *lamb*, though now silent, is a relic of historic pronunciations, and similarly medieval German pronounced P in the cognate words *tump*, *lamp*; but when the P fell silent in German, the alphabetic principle ensured its disappearance from the written form of words, and so it does not figure in modern German *dumm*, *Lamm*. Slightly different is the silent B in English *crumb*, *thumb*, where it was inserted by analogy perhaps with the historical B of *dumb*, *lamb*, or perhaps with the epenthetic B in *crumble*, *thimble*, which was inserted as the new consonant came to be pronounced; but either way, there was no alphabetic or historical justification for inserting B in *crumb*, *thumb*. A slightly different story lies behind the B in *bomb*, *tomb* which derive from French *bombe*, *tombe*; but while French preserves the sound of B, English preserves the letter B without the sound. So the alphabetic principle has become corrupted in English: English-speaking writers can no longer tell from the pronunciation of words which of *ram*, *lam* or *crum*, *rum* should be written with a final B, nor can non-native speakers tell from the spelling which of *bomb*, *bombing*, *bombard* has a silent B. The inevitable consequence is that misspelling and mispronunciation are rife.

4. Alphabetic modernization and anti-alphabetic conservatism

Old English, the language of the Anglo-Saxons, had the distinction of being the first major European language, other than Latin itself, to adopt the Roman alphabet (around the year 600). The Anglo-Saxons needed several centuries to develop a more or less standard spelling system, but once they had done so (around the 10th century), it was fairly straightforward, because its foundation was the alphabetic principle of predictable sound-symbol and symbol-sound correspondence. There is every reason to believe that, without the Norman Conquest (1066), written English would have evolved smoothly and naturally, continuing to respect the alphabetic principle to produce a modern spelling system comparable in its rationality and simplicity to those of Dutch, German or the Scandinavian languages today.

Indeed, the spelling of quite a few words has developed in this way, with letters ceasing to be written as their sounds fell silent (like the P from medieval German *tump*, *lamp*) over the next four centuries. Thus we see the Old English form *endleofan* reducing through *endlevene* (13C), *enleven* (14C), to reach modern *eleven* by the 15th century. More drastic was the reduction of Old English *hlafweard*, which became *laford* (12C), *loverd* (13C), and by the 14th century modern *lord*. The Domesday Book (1089) reduced Anglo-Saxon *Dornwaraceaster* to *Dorecestre*, which was already almost modern English *Dorchester*. If every word descended from Old English had evolved like these,

beginning learners would not today face 52 problem spellings of Germanic origin among the 200 commonest words in the language.

However, other Old English forms developed less satisfactorily, thanks to the impact of printing, introduced to England from the continent in the 1470s by William Caxton. To help sell their books, printers tended to aim for a common, publicly acceptable orthography, which represented a kind of spelling standard reached by consensus. They were not interested in anything as abstract as the alphabetic principle, nor in the needs of literacy teaching for mass education. Once printers had more or less agreed on this standard, it worked against any further change in spelling, because strange new spellings could be presumed to put readers off. Yet enormous changes took place in the pronunciation of many words after the advent of printing, and these changes were then not reflected in changes to the spelling. Thus there were certain sounds which were still pronounced perhaps for 200 years after printing was introduced, and though they are silent today, they are still shown in the spelling. In these cases, the alphabetic principle eccentricities (and concomitant literacy problems) that are characteristic of modern English. Typical cases are *answer* which retains a now silent W, *knight* which retains now silent K and GH, and *Worcester* which retains a whole syllable that no longer corresponds to the pronunciation.

5. The impact of French

The above examples of spelling development or non-development are all words descended from Old English. But long before printing had stopped English spelling continuing to evolve in line with pronunciation, the influx of words from French from 1066 had been undermining the simplicity of the Old English spelling system more fundamentally. For instance, unlike Old English, French used the letter C for the sounds of both /k/ and /s/, but also used the letters K and Q for the sound /k/, as well as the letter S for the sound /s/. If French was uncertain on these points, their impact on English was to spread confusion far and wide.

By the 16th century the letters C and S, when pronounced /s/, had in many words become more or less interchangeable. The following examples show how, although they are mostly no longer interchangeable in individual words in modern English, C and S often switch arbitrarily between *groce*: *grosser*, modern English preserves the reverse alternation between *gross*: *grocer*, and similarly from 16th century *lowce*: *lyse* to 20th century *louse*: *lice*, from *offense*:

offensive to *offence*: *offensive*, from *presede*: *supercede* to *precede*: *supersede*, and from *sause*: *saucege* to *sauce*: *sausage*. Comparison with modern French highlights the arbitrariness of other such variations (sometimes in French as well as English): French has *conseil* for meanings which English distinguishes as *council*: *counsel* (*council* served for both senses in 16th century English), and in *danse*: *rinse* French has the reverse alternation to English *dance*: *rinse* (16th century English also wrote *danse*: *rinse*).

Other 16th century alternations correspond to modern spelling traps involving C/K, as in *skeptick*: *skeleton* (cf. American *skeptic* and 16th century *septre*), or C/T as in *antient*: *pacient*, *condicion*: *suspition*, *spatious* (modern *spacious*: *spatial*). We routinely note some 16th century spellings which would have benefited learners ever since: *sizzers* avoids the triple trap of modern *scissors* (why C? why SS for /z/? why -OR?), and *vicount* avoids the confusion of modern *viscount*, which is riven with S like Italian *visconte*, but spoken without it like French *vicomte*.

Not merely were the 16th century alternations and alternatives no more illogical than today's equivalents, but we inevitably ask, if C/S were so readily interchangeable 450 years ago, why did English not regularize their use — as America does in a few cases, such as S in both *defense* and *defensive*? If a powerful 16th century monarch like Henry VIII or Elizabeth I had decreed the regularization of English spelling, there were plenty of scholars at that time who would have left to implement the royal command (Scragg, 1974). But the command never came, and teachers today are left unable to explain to learners why, in our efficiency-conscious age, writing *sizzers* is wrong, although the 'primitive' 16th century allowed it.

6. Lost opportunities for regularization

If the best spellings of the late medieval and early modern English periods had been selected as the modern standard forms, many of today's greatest difficulties could have been desyncretized out of the system centuries ago. Just what opportunities were missed for systematizing the riven forms of the whole language is powerfully demonstrated by the rhyming set *leave*, *sleeve*, *receive*, *achieve*, *eve*, which in the 14th century, that is, in Chaucer's day, could all be spelt in parallel with the simplest exemplar, which is *eve*, just as we pronounce them in parallel today. The resulting forms, *eve*, *leve*, *sleve*, *receve*, *acheve* would largely overcome that notorious bugbear of English spelling, the sudo-rule 'I before E except after C', as well as aligning the last two of those words with the simple E of French *recevoir*, *achever*. Just how variable has been the evolution of the vowel spellings of these

words is seen from *figr 4*, wich shos for wich centuris wich spelngs ar atestd by th *Oxford English Dictionary* (OED) for wich of those words.

It is symtmatic of al this confusion that th comn 20th century ‘mispelngs’ **recieve*, **acheive* ar not atestd as variants in th *OED*, tho they ar not infrequently seen in th media.

figr 4 *Vacilations of -EVE thru th centuris*

20th century	<i>leave</i>	<i>sleeve</i>	<i>receive</i>	<i>achieve</i>	<i>eve</i>
EA	15C onwrds	16C, 18C <i>sleeve</i>	16-17C <i>receave</i>		17C <i>eave</i>
EE	14-15C <i>leeve</i>	14C onwrds			16-17C <i>eeve</i>
EI			16C onwrds	15C <i>acheive</i>	
IE			17C <i>recieve</i>	15C onwrds	
E—E	14-16C <i>leve</i>	14-17C <i>sleve</i>	14C <i>receve</i>	14-16C <i>acheve</i>	13C onwrds

An aditionl complication that arose afr th invasion of french was that for som centuris England was not just a bilingul cuntry, with french and english, but in an importnt sense, actuly trilingul (as demnstrated in th *Eadwine Psalter*, eds. Margaret Gibson et al., 1992), with latn domnnt in certn sferes, especyaly th church, th universitis and diplomacy. And ther wer som significant discrepncis between french and latn spelngs wich modrn english has in its usul careless way contrived to mudl up. Edmond Coote (1596) epitmized th problm with th foloing exampl: “Some write *malicious*, deriuing it from *malice*. Other write *malitious*, as from Latine *malitiosus*.” Th figr of Edmond Coote is of intrest as th authr of a book entitled *The English school-maister*, a gide to english spelng used for litracy teachng over 150 years from th late 16th to th mid-18th century. He mor than anyone else may perhaps be creditd with wat standrdization and simplification english spelng did acheve during that period, as typifyd by th reduction of such forms as *bytte* to modrn *bit*.

The quotation from Coote shos th dilema facing 16th century riters wen they had to choose between th french and latn forms of loan words. It was

a problm they nevr resolvd, and we sufr from th consequences today. Th most pervasiv ambivlnce is probbly th unpredictbly varying -ANT/-ENT endng, but th british/amerin diverjnce between -OUR/-OR presents a problm of choice for foren lernrs. Figr 5 shos a set of words with a comn root wich orijgnated in latn, but pasd on to varius modrn european languajs. French is seen to adapt th latn endng consistntly to suit th nasalized french pronunciation, wile jermn is seen consistntly to retain th latn vowel to suit th jermn pronunciation; but english vacillates unpredictbly between th french and latn spelng patrn, altho its pronunciation coresponds to neithr.

figr 5 *French -ANT or Latn -ENT?*

french -ANT	english -ANT/-ENT	jermn (<latn) -ENT
<i>assistANT</i>	<i>assistANT</i>	<i>assistant</i>
<i>consistANT</i>	<i>consistENT</i>	<i>konsistENT</i>
<i>insistANT</i>	<i>insistENT</i>	<i>insistENT</i>
<i>persistANT</i>	<i>persistENT</i>	<i>persistENT</i>
<i>résistANT</i>	<i>resistANT</i>	<i>resistENT</i>

Part of th problm for english here lies in th fact that its pronunciation has neithr a clear A-vowl nor a clear E-vowl wich cud determ n a consistnt spelng, but th unstresd centrized vowl nown as shwa, for wich th roman alfabet has no obvius letr. Erlir centuris dithrd over wethr to rite -ANT or -ENT in such cases, Samuel Johnson remarkng: “...some words, such as *dependant, dependent* ... vary their final syllable, as one or other language [french or latnl is present to the writer” (1773, p.iv). Th 20th century prefers rijid insistnce on inconsistncy to such orthografic tolrnce. Wat shud we recmend for th 21st century?

Equally unpredictbl, but with twists and turns of its own, is th -OUR/-OR variation. Th british began to resolv it in th 18th century wen *emperour, error* became *emperor, error*, but they left America to regulrize many othr exampls (*honor, harbor*), tho *glamour* retains a special aura worldwide (se figr 6). Othr franco-latn uncertntis ar seen in th varying prefixs DES-/DIS- (*despatch/dispatch*), EN-/IN- (*enquiry/inquiry*) and in

countless pairs of related words (eg, *imperial* from latin, *emperor* from french). The british -OUR forms are not merely unpredictable for writers who have to learn which words take -OUR and which -OR, and in which derivatives the -OUR becomes -OR (*honourable* but *honorary*, *favourite* but *invigorate*), but for readers they create ambiguity with the stressed ending of *devour*. As with the -ANT/-ENT variation, the pronunciation is an essential part of the problem: the vowel letters of the syllables -OUR/-OR do not correspond to an equivalent vowel sound, but to a reduced, unstressed centralized schwa that can in principle be spelt with any vowel letter, so that the pronunciation can give no clue to the spelling. But where the second vowel sound of English *honour*: *honorable* is indistinguishable, the different EU/O spellings of French *honneur*: *honorable* reflect quite distinct sounds and so do not constitute a spelling problem (the double N in *honneur* is another matter).

fig 6 Anglo-french -OUR or US-latin -OR?

modern french -EUR	british -OUR (<old french)	american -OR (<latin)
<i>honneur</i>	<i>honOUR</i>	<i>honOR</i>
<i>empereur</i>	← <i>emperOR</i> →	<i>emperOR</i> (latin <i>imperatOR</i>)
<i>erreur</i>	<i>errOR</i>	<i>errOR</i>
—	(<i>harbOUR</i> <Old English)	(<i>harbOR</i>)
—	<i>glamOUR</i> (< <i>grammAR</i>)	<i>glamOUR</i>

7. The greek ingredient

A further major complication that arose in the early modern English period was the influx of learned words from Greek. Some had entered English previously, in the Middle English period (approx. 11th-15th centuries), when they were typically spelt more or less as pronounced — i.e., by the alphabetic principle, as cognate words are in Italian and Spanish today. But after the advent of printing the influence of classical learning overtook these simple spellings, and they were etymologized. That is to say, they were respelt according to the Latin tradition of transliteration from Greek, and no longer as they were pronounced in English. That represented a further blow to the alphabetic principle.

Figr 7 shos wat hapnd, and by contast, wat hapned in italian, or spanish, wher th alfabetik principl has been faithfully observd. It wil be noted how, on th hole, th Midl English spelngs corespond to modrn english pronunciation mor closely than do th modrn english spelngs.

The modrn english forms *ache* and *anchor* deserv special note, since, unlike most othr words listed here, th H in ther spelng has no basis in greco-latn derivation. It was Dr Johnson ho in his 18th century dictionry (1773, p22) edtablished th form *ache* in place of *ake* (at least for th noun) in th mistaken belief that th word derived from greek. Th H in *anchor* is simlrly spurius, th Midl English form *anker* paralelmg modrn jermn *Anker*.

figr 7 *Greco-latn and th alfabetik principl*

greco-latn	Midi English	italian	modrn english
<i>asthma</i>	<i>asma</i>	<i>asma</i>	<i>asthma</i>
<i>echo</i>	<i>ecko</i>	<i>eco</i>	<i>echo</i>
<i>physica</i>	<i>fisik</i>	<i>fisica</i>	<i>physic</i>
<i>psalmus</i>	<i>salm</i>	<i>salmo</i>	<i>psalm</i>
<i>rhetorica</i>	<i>retorik</i>	<i>retorica</i>	<i>rhetoric</i>
<i>schisma</i>	<i>sisme</i>	<i>scisma</i>	<i>schism</i>
<i>schola</i>	<i>scole</i>	<i>Scuola</i>	<i>school</i>
	<i>ake</i>		<i>ache</i>
<i>ancora</i>	<i>anker</i>	<i>ancora</i>	<i>anchor</i>
greco-latn	erly ModE	spanish	ModE
<i>hæmorrhagia</i>	<i>hemoragie</i>	<i>hemorragia</i>	<i>haemorrhage</i>
<i>psychologia</i>	<i>psycology</i>	<i>sicologia</i>	<i>psychology</i>

Greek derivations ar not an abstruse area of vocablry that can be efectively ignord as remote from th needs of th mass of scool pupils. On th contry, they are centrl to many fields of study that al pupils nowadays face in

british secondary schools, in mathematics, in science, in geography, and elsewhere and anyone who advances to higher education is in due course likely to be surrounded by them. Indeed there is a new interest in literacy circles today in how best to prepare young pupils for their future linguistic needs in such areas (eg, Mason, 1985; Byrne, 1986). Yet greek-derived spellings pose enormous additional difficulties to the learner, as publicly witnessed by Dr Bernard Lamb (1992), who has analysed the problems of his biology students at Imperial College, London, in mastering the terminology of the life sciences. Just why they cause such difficulties is not hard to see: they constitute yet another stratum in the English spelling system that often conflicts with the generality of spelling patterns familiar from other areas of English; and they diverge from the alphabetic principle (quite apart from blatant errors such as *ache*) in ways all of their own, for instance with silent letters (especially P and H, as in *psychology*) and the vowel Y frequently preferred to I (contrast the perverse DIS-/DYS-variation between *disorganize: dysfunction*, the first of which attaches a Latin prefix to a Greek root, and the second a Greek prefix to a Latin root).

Another important point arising from the 'Greek' chart concerns comparative standards of literacy in English and Italian. As the above examples show, even technical terms of Greek derivation have predictable sound-symbol correspondences in Italian. We should therefore not be surprised at recent research findings (Thorstad, 1991) to the effect that Italian youngsters far outstrip their English counterparts in basic literacy skills. Particularly striking was the finding that Italian children could often read words they had never previously met, whereas the English children were often unable to read words they were familiar with. Underlying this disparity between literacy standards in English and Italian is the fact that English does not observe the alphabetic principle while Italian does (Upward & Pulcini, 1996), a difference that is nowhere more marked than in the spelling of Greek-derived words.

8. Lessons for the present

The above analyses merely sample the quagmire of English spelling at a few selected points, but give a fair indication of its general incoherence. They demonstrate how ill-founded are some of the popular beliefs about it, such as that the orthography usefully reflects the derivations of words or corrections with other languages, and that such virtues compensate for its faults. Above all, the analyses show that over the last 500 years the prime quality a good orthography should possess, its observance of the alphabetic principle has in English been egregiously neglected. Five hundred years ago there was perhaps some chance that a natural tendency to spell as we speak might have prevailed, but especially the

impact of classical learning at the time of the Renaissance, coinciding with the advent of printing, felt that opportunity a fatal blow.

The consequence for literacy standards is grave throughout the English-speaking world. There is tremendous concern about standards in England today, but the various nostrums proposed nearly all ignore the fundamental problem, whether they are called *fonics* or *real books*, *look-and-say* or *whole language*, *reading recovery* or whatever other new approach may be launched next week or next year. Some of these approaches show a quite basic misunderstanding of what alphabetic literacy entails. For instance, recent research into literacy promotion by TV, with children watching televised versions of stories with key phrases shown as subtitles, was rated successful because children “remembered a lot of the text” and “used picture cues to guide them”, even though “they were far less confident in doing so with phrases they had not seen” (Marshall, 1994). Literacy is not to mean being able to decode not merely words that one has not seen before, but words that one has not heard before either, and literacy teaching should mean equipping children with the techniques that will enable them so to decode whatever words they encounter (as well, of course, as the reverse skill of encoding, as required for writing). New words are after all the essence of education. Fortunately, the ‘top-down’ theory of literacy, which regarded word-decoding as unimportant (global understanding of text without precise identification of each word was considered the natural process of reading) and which created such a stir in the 1970s, is now becoming discredited, as the experimental research carried out in the 1980s accumulated evidence that the ‘top-down’ view of the processes involved in literacy was systematically unfounded (Stanovich, 1991).

However, among these approaches we should not be in any doubt about the importance of phonics: phonics is the key to literacy in every language that is written alphabetically (as most languages have always appreciated), and it is the key to the best results that can be obtained in English today. But those results will forever limp behind what is achieved with far less effort in most other languages, until English regains the respect it is due for the alphabetic principle. Whether or not we investigate the history of English spelling to discover how we got into our present parlous state, whether or not we try and catalogue the innumerable inconsistencies and absurdities with which written English is riddled, the practical evidence for the problem is all around us. It faces us on road signs whenever we travel around the country. It faces us whenever we have to check the spelling of a word in the dictionary when we do not perfectly well how to pronounce it, or conversely when we check its pronunciation though we may have been familiar with

its right form for most of our lives. It is implicit in unfavorable comparisons between English-speaking and non-English-speaking countries (Upward, 1995). But above all it faces us whenever we see our pupils and students, whether at infants school or university, struggling with right English.

Those are the lessons the past has for the present, enabling us to diagnose our present problems. Underlying them all is the fundamental importance of the alphabetic principle. One of the criticisms of education standards in English-speaking countries is that our expectations of what children can achieve are too low. In no field is that truer than in literacy. We do not expect 8-year-olds to be able to read whatever English word they meet anywhere whether they are already familiar with it or not, and whether they understand it or not. A Hungarian linguist once told me of a Hungarian physics professor's grandchild who would read scientific papers aloud to him, naturally without understanding, but equally naturally conveying the sense to the listening grandfather. We must ask why we should not expect as much of English-speaking children.

9. Looking to the future

Diagnosing a disease is the first step. Finding and prescribing the appropriate treatment is something else again, and actually applying the remedy is a further step which, in this world of human fallibility, sadly does not automatically flow from diagnosis and prescription. But to diagnose a problem, and let it rest there, is no way to advance the cause of education in which we all have an interest. We have to think ahead and consider what might usefully be done, and what practical possibilities there may be for implementing improvements to English spelling. Other languages recognize the need to update their writing systems, and in the 20th century at least they have done so (in approximately chronological order): German, Norwegian, Romanian, Russian, Afrikaans, Turkish, Dutch, Danish, Japanese, Irish, Spanish, Chinese, Malay-Indonesian, Malayalam, Greek, Portuguese. In 1990 the French Ministry of Education announced a number of permissible simplifications, for instance that children need no longer learn to write the circumflex accent on many words that had previously been spelled with it (thus in future *flûte* could align with its rhyme *chute* and be right *flute*, as in English) (*Rectifications*, etc, 1991). In 1995 the education authorities in Germany/Austria/Switzerland and in the Netherlands have been finalizing plans for a simplification of right German (Heller, 1996) and Dutch (Cohen, 1995). For English as a world language the organization of a spelling reform would be far more complex, and this paper is not the place to consider those complexities; but at least the need for reform, of whatever kind, should be understood and accepted. One has to say that at present, in the English-speaking

cuntris at least, such undrstandng is rare, tho elswher it is mor ofn taken for grantd because in othr languajs th alfabetic principl is mor ofn taken for grantd as th necesry basis for any alfabetic riting systm. It is no accidnt that th authr of th remark, quoted erly on in this paper, about english spelng being “one of th world’s most awesome messes”, was an americh ho receved his primary education, including his first instruction in litracy, in Itly (Pei, 1968).

This paper has atemptd to make th case for th need for spelng reform in english, and it has itself been ritn in a simplifyd orthogrfy, Cut Spelng (CS), as an exampl of a modratly radicl kind of reform. A handbook (Upward, 1996) to th systm sets out its varius advantajs, wich include econmy, lejbility for readrs without instruction, flexibility, far-reachng compatability with traditionl ritn english, but abov al gretly improved regularity and predictbility. An outline of its rules is givn at th beginng of this paper. It must be emfazized that, in ordr to preserv a strong visul resemblnce to traditionl spelng, CS delibratly dos not atempt to rectify evry regularity. Its main procedur is merely to remove redundnt lettrs, tho ther ar also a few patrn of letr-substitution. By way of ilustration, we wil here list th simplifications that CS aplys to certn of th problm spelngs discusd abov.

If th spelng of place-names wer simplifyd, th foloing new forms wud arise (those for wich no CS equivlnt is givn remain unchanged watevr th deficiencis of ther presnt spelng):

Warwick >CS *Warik*, *Towcester* >CS *Toestr*, *Nene* >CS *Nen*
Wisbech (Holbeach), - *Grantham* >CS *Granthm*, *Gotham* >CS
Gotam, *Blackley* >CS *Blakly*, *Keighley* >CS *Keighly*,
Langbaurgh >CS *Langbrh* (if th final sylabl is pronounced as
in *Edinbrh*), *Leicester Square* >CS *Lestr Square*.

Th 57 most aberant spelngs among th 200 comnst words ar afectd by CS as folos:

of, to, was, have >CS *hav*, *are* >CS *ar*, *which* >CS *wich*, *you*
>CS *u*, *they, were* >CS *wer*, *there* >CS *ther*, *one, all* >CS *al*
their >CS *ther*, *would* >CS *wud*, *when* >CS *wen*, *who* >CS
ho, *more* >CS *mor*, *said, what* >CS *wat*, *some* >CS *som*, *only,*
could >CS *cud*, *two, other* >CS *othr*, *do, any, should* >CS
shud, *before* >CS *before* *where* >CS *wher*, *many, your* >CS
yr, *work, know* >CS *no*, *might* >CS *mvt*, *through* >CS *thru*,

own, here, great >CS *gret*, *come* >CS *com*, *again, though* >CS *tho*, *thought* >CS *thot*, *right* >CS *ryt*, *world, while* >CS *wile*, *against, does* >CS *dos*, *always, young* >CS *yung*, *why* >CS *wy*, *once, nothing*.

Here 32 of the 52 words of Germanic derivation are simplified in CS, as are the following 3 among the 5 particularly aberrant spellings of French derivation, thus altogether 35 from the total of 57:

Mr, people >CS *peple*, *(be)cause, course* >CS *corse*, *government* >CS *govrnmnt*.

Among the other common but less perversely irregular words listed from among the 200, only one is affected by CS:

first, most, good, few, as, us, time, little >CS *litl*.

Silent B disappears in CS, unless it distinguishes a preceding long vowel:

dumb >CS *dum*, *lamb* >CS *lam*, *crumb* >CS *crum*, *thumb* >CS *thum*, *bomb* >CS *bom*, *tomb, bombing, bombard*.

Words of Old English origin with surviving silent letters are affected as follows:

eleven >CS *elevn*, *lord, Dorchester* >CS *Dorchestr*, *answer* >CS *ansr*, *knight* >CS *nyt*, *Worcester* >CS *Worstr*.

Examples listed in connection with the 'French' S/C variation are affected as follows:

gross, grocer, louse, lice, offence >CS *ofense*, *offensive* >CS *ofensiv*, *precede, supersede, sauce, sausage* >CS *sausaj*, *council, counsel* >CS *counsl*, *dance, rinse, skeleton* >CS *skeletrn*, *sceptic* >CS *skeptic*, *sceptre* >CS *septr*, *ancient, patient, condition, suspicion, spacious* >CS *spacius*, *spatial, scissors* >CS *sisrs*, *viscount* >CS *vicount*, *defence* >CS *defense*, *defensive* >CS *defensive*

The -EVE words are regularized in CS back to their common 14th century forms:

eve, leave >CS *leve*, *sleeve* >CS *sleve*, *receive* >CS *receve*, *achieve* >CS *acheve*.

Conflicting Latin vs. French spelling patterns are regularized as follows:

malicious >CS *malicius*, *assistant* >CS *asistnt*, *consistent* >CS *consistnt*, *insistent* >CS *insistnt*, *persistent* >CS *persistnt*, *resistant* >CS *resistnt*, *dependent* >CS *dependnt*, *dependent* >CS *dependnt*, *emperor* >CS *empr*, *error* >CS *err*, *honour* >CS *onr*, *harbour* >CS *harbr*, *glamour* >CS *glamr*, *despatch* >CS *dispach*, *enquiry* >CS *inquiry*, *honourable* >CS *onrbl*, *honorary* >CS *onry*, *favourite* >CS *favorite* *invigorate* >CS *invigrate*, *devour*.

Patterns of Greco-Latin spelling are affected in CS as follows:

asthma >CS *asma*, *echo* >CS *eco*, *physic* >CS *fysic*, *psalm* >CS *salm*, *schism* >CS *sism* (or, dependng on pronunciation, perhaps *scism*, *shism*), *school* >CS *scool*, *ache*, *anchor* >CS *ancr*, *haemorrhage* >CS *hemraj*, *psychology* >CS *sycology*, *disorganize* >CS *disorgnize*, *dysfunction*.

These examples of CS relate to th orthografic problm cases discusd erlir in this paper, but they do not hylt th ke syclojicl advantaj of th CS systm, namely that, by targetng th many (c.10%) redundnt letrs in tradition spelng, CS removes those very featur wich cause lernrs and users most dificlty. Th reasn redundnt letrs cause most dificlty gos bak to th alfabetic principl: readrs canot tel from th ritn text wethr a redundnt letr is to be pronounced or not (eg, th G in *paradigm* is silent - but wat about th G in *paradigmatic*?), and riters canot tel from th sound of words wethr redundnt letrs ar needd, nor wich ones, nor wher they shud be placed (eg, hence such comn mispelngs as **business*, **buisness*). To gain an inking of th ful, systmatic impact of CS on ritn english, readrs may care to reread th outline of its rules givn at th beginng, and to reflect on ther impressions, havng now red som 20 pajes of text in CS.

CS is of corse but one posibility of a first staj in th modrnization of english spelng. Othr proposals, ranjing from th minmlist replacemnt of british forms by simplr amerien alternativs, to th maxmlist replacemnt of th presnt roman alfabet by a completely new alfabet such as th Shaw Alfabet (Shaw, 1962), need to be examnd also.

As yet, th question of english spelng reform, tho ocasionly atractng public atention, has not convinced th relevnt authoritis that it requires serius, informd considration. Wher spelng has been in th public y, it has usuly been in terms that do not focus on th ke issus presentd in this paper. Thus th editorial to a recent numbr of *Language & Literacy News* referd merely to “the debate about the English spelling system and the desirability of directly teaching it to children”. Th purpos of this paper is to try and rase th jenrly lo levl of awareness of th tru natur of english spelng, but its format and styl ar probbly too pondrus for jenrl consumption. It wil now conclude with som sampls of a mor direct atemt at public education, in th form of thre questionairs - wich ar therfor natrly not couchd in CS.

1 — DOES ENGLISH SPELLING NEED MODERNIZING?

Tick one of the righthand columns	<i>yes</i>	<i>un- sure</i>	<i>no</i>
1. The letters of the alphabet were designed to represent speech sounds; that is the alphabetic principle.			
2. The alphabetic principle makes literacy easy, allowing readers to pronounce words from their spelling, and writers to spell words from their sounds.			
3. As pronunciation changes through the centuries, the alphabetic principle tends to be undermined; the spelling of words then needs to be adapted to show the new sounds.			
4. Unlike other languages, English has done little to modernize its spelling for nearly 1,000 years, and today it only haphazardly observes the alphabetic principle.			
5. Neglect of the alphabetic principle now makes literacy unnecessarily difficult in English, and all education suffers.			
6. Procedures are needed to manage improvements to English spelling for the future.			

2 — HOW SHOULD ENGLISH SPELLING BE MANAGED?

Tick one of the righthand columns	<i>yes</i>	<i>un- sure</i>	<i>no</i>
1. Do nothing, struggle on, and hope the difficulties will sort themselves out.			
2. Ignore ‘mistakes’, and let everyone (children, adults, foreigners, media, business, officialdom) spell as they like.			
3. Campaign for some of the most troublesome spellings to be officially regularized.			
4. Set up a body to develop and implement policies for the future of spelling in Britain.			
5. Ask an international organization (UNICEF? OECD?) to co-ordinate a world standard for English spelling.			
6. Encourage people to adopt easier American spellings (eg <i>ax, catalog, center, color, esthetic, fetus, skeptic, mold, traveled, maneuver</i>).			
7. Teach beginners some simpler spellings as a new standard for future generations.			

3 — WHAT PRIORITY SHOULD THE FOLLOWING SPELLING IMPROVEMENTS HAVE?

Tick one of the righthand columns	<i>now</i>	<i>soon</i>	<i>later</i>	<i>never</i>
1. Always spell short /e/ as E, eg <i>hed, frend, lepard?</i>				
2. Introduce spelling rhymes like <i>eve, leve, sleve, receve, acheve?</i>				
3. Always spell /f/ as F, eg <i>cof, ruf, nefew, filosofy, fotografy?</i>				
4. Always spell /dJ/ as J, eg <i>jeneral, jinjer, majic, brij, juj?</i>				
5. Always spell /s/ as S, eg <i>sertain, sity, sycle, presede, proseed, sauser, sinse?</i>				
6. Always spell /S/ as SH, eg <i>shampagne, shugar, shure, mashine, oshean, speshial, conshience, mishion, nashion, preshious?</i>				
7. Always spell /z/ as Z, eg <i>hiz, buzy, reazon, surprize, spellz, dogz?</i>				
8. Don't normally write consonants double, eg write <i>acomodation, exaggerate, innocuous, ocured, ofice, paralel, sak, symmetrical, traveler, traveled, traveling?</i>				
9. Don't normally write consonant double, e.g. <i>hav, foren, onest, samon, colum, neumonia, iland, bilding?</i>				
10. Regularize -ER-type endings as just -R: <i>burglr, teachr, doctr, harbr, theatr, murmr, injr, martr?</i>				

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