

Journal of the Simplified Spelling Society, 1998/3. J9

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The Society

Founded in 1908, the Simplified Spelling Society has included among its officers: Daniel Jones, Horace King, Gilbert Murray, William Temple, H G Wells, Sir James Pitman, A C Gimson and John Downing. Its aim is to "bring about a reform of the spelling of English in the interests of ease of learning and economy of writing". Its present officers are:

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Editor and Membership Secretary: Chris Upward,

The journal

Journal of the Simplified Spelling Society appears three times a year.

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American Language Academy, New York

Valerie Yule, Faculty of Education, Monash University, Clayton, Victoria, Australia.

[Chris Upward: see [Journals](#), [Newsletters](#), [Pamphlet](#), [Leaflets](#), [Media](#), [Book and Papers](#).]

1. Editorial Chris Upward

THIS ISSUE

In 1988 we have given priority to the papers presented at our [1987 conference](#). This *Journal* completes the task.

An innovation in this issue is the cumulative index, which now catalogues the authors, articles and other items, many of them highly authoritative, that have appeared in the Society's *Journal* and its predecessor, the *Newsletter*, since 1985. In future the third issue each year will carry an index of what has appeared in the previous 12 months.

We begin however with Adam Brown's study of the spelling problems faced by non-English-speaking learners. This is a matter of extreme importance, since the whole function of English has now been extended from its role as the language of English-speaking nations, to that of the prime medium of international communication. So fundamental has this shift been that it is today estimated that most people who learn to read and write English are no longer native speakers of the language. In other words, the purpose of simplifying English spelling is no longer the merely national one of trying to reduce illiteracy in this or that country; the purpose now is to facilitate communication world-wide, whether of market traders in polyglot communities in Africa or Asia, or of diplomats whose interaction may determine the fate of mankind.

The needs of foreign learners differ from those of native speakers in several ways. Most importantly perhaps, foreign learners are especially dependent on predictable sound-symbol correspondence. Whereas the native speaker may be able to read a word because its letters bear some relationship, however erratic, to a known pronunciation, foreign learners are far more likely to have to use the spelling to construct a pronunciation — which all too often is wrong. Because of this extra difficulty, foreign learners may be especially attracted to simplification, and they will rarely suffer from the hang-ups of tradition that so often make the native speaker reject simplification out of hand.

Perhaps the interests of this new majority should be taken up by an international body, such as the United Nations or the European Community, whose burden of paperwork could be significantly lightened by a simplified, more economical, international style for written English, freed from the linguistic dictates of the native speakers.

Julius Nyikos's sumptuous sample of sibilant spellings is a just a small part of a vast catalogue of alternative sound-symbol correspondences he has been compiling for English, very much with the foreign learner's perspective in mind. A striking feature of the rich collection he presents is the extent to which loan-words from other languages constitute exceptions and peculiarities within the varied tapestry that is written English. They constitute a particular obstacle to any blanket reduction of English to a system of one-to-one sound-symbol correspondence if a word like *pizza* is respelt *peetsa*, the visual commonality with Italian is lost. But if we exclude 'foreign' words from our reform, we have to be able to define 'foreign'. Is *restaurant* a 'foreign' word? How would it be best spelt? Readers' views are invited.

Edgar Gregersen's conference paper presents some salutary warnings, based particularly on the unhappy experiences of spelling reform in Norwegian, of the dangers of ill-considered spelling changes. Not only must reformed spellings be mutually compatible, but future developments also have to be taken into account: a first stage reform must not conflict with possible subsequent stages.

STRATEGIES

These are questions of linguistic strategy, of deciding, in the face of the tangle of inconsistencies that is TO, which inconsistency to tackle first. The editor's conference paper considers how Cut Spelling has to be examined by such criteria, because not all redundant letters are equally redundant, some only becoming fully redundant after other spelling changes have been made. Which letters can be cut out at once, and which only later? To write *bitn*, *coin* for *bitten*, *cotton* is fine — but how about *natn* for *nation*, which has the same syllabic <n>, but not the same <t>?

Linguistic strategy is however not the only kind of strategy spelling reformers have to think about. No less important is the strategy to be adopted in our attempts to influence the world. Some reformers have concentrated on advocating one single reform, such as SRI (the vowel in *hen* always to be written <e>, as in *hed*, *trend*, *eny*), or solving the <gh> problem. Other reformers have gone to the other extreme, and proposed either a total revolution (e.g. *New Spelling*) or at least a fairly far-reaching one (Axel Wijk's *Regularized English* or Ed Rondthaler's *Simplified American*). Good luck to them: they all teach us something about spelling — and about the difficulty of gaining acceptance (so far); and if any of them does gain acceptance, it is a victory for us all.

This is where the second kind of strategy comes in. We have to ask: who could conceivably implement a reform? An education authority? A publisher of books? A publisher of newspapers? A dictionary? A wealthy philanthropist? A government? The United Nations? All of these are conceivable, yet all are equally hard to imagine as a realistic possibility in the present climate of orthographic ignorance. And what if one or more of these parties did become enamoured of a particular reform, but others refused to accept it? The result would at best be stalemate, at worst a state of confusion that would give the cause of reform a bad name for the foreseeable future.

This is not to discourage individuals or groups from developing and promoting particular schemes. Their research and enthusiasm are the prerequisite for progress. But as a movement, as a Society, perhaps we should take a broader view, not at present committing ourselves to any one scheme exclusively, but devoting ourselves to educating the public to a more scientific, better informed, more pragmatic and less dogmatic view of the monster that is TO. We have to convince influential figures of the absurdity of saying that TO "has served us all perfectly well", linguists of the inappropriateness of describing as "optimal", educationists that TO is not in fact and the public in general of the historical and relativity of all writing systems.

'Strategy' is now an item on the Society's agenda.

2. Correspondence

Cut Spelling query

From **Jim Johansson**, Institut Linguistik S I L, Kota Kinabalu, Sabah Malaysia:-

A couple of comments on the Cut Spelling brochure: you spell *superior* and *souvenir* with <-rir> and <-nir> (*superir*, *suvenir*) respectively. Since the <-nir> sound is like *near*, I should expect <-rir> to sound like *rear*. In fact it is *two* syllables, at least in American, and I suspect in British English. You spell *figure* as equivalent to *vigor*: In fact in American it is /f i g ə r/ — which brings up the problem of how to resolve British-American differences.

(Dictionaries disagree whether souvenir, superior have the same ending; the main difference is the stress. Perhaps figure should keep <u> because of American pronunciation — but what about the <e>? —Ed.)

Deaf Spellers

From **Rob Baker**, School of Education, University of Leeds:-

My current thoughts on spelling reform and deaf children:-

Most studies show that deaf children's spelling abilities are better than hearing children's, if you keep Reading Age and IQ constant. 'Phonetically plausible' errors, the most common among hearing children, are, as you might expect rare with deaf children. In a study by Barbara Dodd (in *Cognitive Processes in Spelling*, ed. U Frith, Academic Press 1980) the most common form of 'deaf error' was a categorical refusal to attempt to spell unfamiliar words.

Both the above findings fit with the face-value hypothesis that deaf children do not have ready access to spelling-sound correspondences, either to help or to confuse them (though Dodd argues that things may not be that simple).

It seems unlikely that any revision of orthography based on a regularization of spelling-sound correspondence would have any effect on deaf children—short of them having to learn a new set of visual images. In fact it seems more likely that visual distinctiveness of word images would be most useful (so that regularization could actually work *against* these children). In the case of words for which the deaf child does not have the beginnings of a visual image the only strategy seems to be 'if in doubt give it up'.

Some variety of Cut Spelling may carry benefits for two reasons:- i) fewer characters = less visual memory load, although I'm unclear about the pay-off between memory load and redundancy. ii) fewer characters = economy in production of writing.

The latter benefit would show up particularly in situations which are of special relevance to deaf people, viz. the use of electronic mail systems and keyboard telecommunications where characters = connect-time = money! Deaf people already use ad hoc spelling abbreviations to save money in such situations. However these 'cut spellings' are not phonologically motivated, but more like 'speed-writing' techniques. The question mark with regard to the Cut Spelling system is whether the rules would make sense to deaf people.

Developments abroad

From **Ed Rondthaler, American Literacy Council**:-

A news release: The American Language Academy announces a change of name to 'American Literacy Council'. This change was undertaken because the previous title conflicted with a commercial organisation in the State of Maryland, and the likelihood of confusion in the future was an unwelcome possibility.

Officers of the Council are: Edward Rondthaler, President; H Park Beck, Vice-President; Grace T Wood, Secy-Treas.; Joseph R Little, Asst. to the President; Edward J Las, Computer Consultant.

The new headquarters of the organization are in the Columbia University area. The Organization's research facilities will remain in New York.

Mr Little is the Council's first full-time staff member. He is a graduate of the University of North Carolina at its prestigious Chapel Hill campus, having majored in Journalism and minored in Political Science and English. He looks forward to a career in what he considers basic to the social and economic wellbeing of the English speaking world, and is shouldering this assignment with enthusiasm and dedication. His first three months of preparation were spent with Dr Rondthaler acquiring a thorough grounding in the history and fundamentals of spelling reform. Following that initial period he moved to the ALC offices in New York where it is expected that he will bring to the work of the Council a youthful energy often in short supply during the 100-year history of spelling reform.

From **Better Education thru Simplified the Spelling, Inc.**, Michigan:-

BETSS completed successfully in 1987 the first phase of the 'New Era in Spelling' funding campaign. Over \$10,000 was contributed. Phase II will begin in mid-1988, reaching out throughout the United States. Several target audiences have been identified for special programs designed to raise the level of awareness relative to spelling simplification. These programs will put emphasis on providing a greater understanding of the nature and extent of the problem represented by our current spelling, with emphasis also on the personal and economic benefits to be derived for all persons thru spelling simplification.

The main recommendation of the High/Scope Educational Research Foundation in its Report to BETSS is that BETSS create a well-supported *Center for the Study of Spelling Reform*. It would conduct research on key aspects of spelling reform hypotheses and models, act as an international clearing house for information and research and publish and stimulate publication of information on spelling reform.

From **Prof. Dr Gerhard Augst**, University of Siegen, W Germany:-

Even such a moderate reform as we are proposing is meeting with vehement opposition. Because of the press-campaign, the education ministers who asked for our recommendations, are reluctant to accept them.

The education ministry of North-Rhine Westphalia is adopting a different tactic. They have asked me to compile a minimum list of all the rules of German spelling which are absolutely necessary. Only these would be used in primary schools.

3. A Singaporean Corpus of Misspellings: Analysis and Implications Adam Brown

Dr. Adam Brown has researched into many areas of phonetics, and is especially interested in pronunciation models for foreign learners. The present corpus was collected while he was at the National University of Singapore (1982–85), and analysed in the Language Studies Unit of Aston University (1985–88). He is presently in the Department of Language Education of the University of Malaya, Kuala Lumpur.

Abstract

The purpose of this paper is to present an analysis of a corpus of 1,392 misspellings by 360 fifteen-year-old Singaporeans. This is preceded by a discussion of the many analytical problems involved in such an analysis. In particular, it is noted that phonological explanations of misspelling phenomena have often been overlooked, and that non-native speakers have greater difficulties than native speakers in spelling English, owing to underdifferentiation of the phonological system. Implications for language teaching and spelling reform are discussed.

Introduction

It is a common attitude among native speakers of English that the English language belongs to us. For example, the paradigm of English language teaching has long seemed to be one of 'us' (native speakers) teaching 'our' language to 'them' (non-native speakers). In this way, English language reaching around the world has been likened to the export of any other commodity or service. We native speakers export the language as an income-earner and vehicle for Western culture.

However, in recent years, people's attitudes have changed. The English language is no longer seen as the property of native speakers, but as something which is learnt and used by large numbers of people around the world, and is thus a part of their lives just as much as of ours. It has been estimated (Stevens, 1982) that there are around 300 million native speakers of English, but that nowadays these are outnumbered by the more than 375 million non-native speakers. Such estimates must necessarily be approximate, but it is clear that non-native speakers are in the majority.

There are also significant differences in the use made of English in non-native situations. The main distinction is between situations where English is a *second language* (ESL), and those where it is a *foreign language* (EFL). In ESL situations, English has some official status, e.g. in government, schools, by its use in the media. Fiji, Ghana, Singapore and Uganda are examples of ESL countries. In EFL situations, however, English is generally learnt only for international communication, and its use within the country is small. Most of the nations of the world fall in this category. The United Nations, for example, has 150 members, of which all but 33 are EFL (Moag, 1982). (This is a simplified picture of the situation. For example, in some situations, definition of the term *native language* becomes difficult. In Singapore, always referred to as an ESL country, there are many people who speak no language other than English.)

In short then, there are nowadays more non-native speakers of English than native. Problems of English spelling confronting non-native learners ought thus to be investigated in parallel to those of native English children learning the system.

Problems of analysis

Several problems arise in the analysis of misspellings. A distinction must first be drawn between

those misspellings which writers consistently make, and those which they only make on isolated occasions. In the first case, the writer either (i) does not know the correct spelling of the word, or (ii) is very unsure between alternative possibilities, or (iii) is convinced that the word is spelt in some way other than its correct form. In the second case, however, the writer does in fact know the correct spelling of the word, but for reasons of inattention, fatigue, pressure of time, etc., on a particular occasion fails to spell the word correctly; if we draw his attention to the misspelling, he will therefore be able to supply the correct form immediately and without doubt. The former are thus consistent errors of competence, while the latter are momentary errors of performance. The term *slips of the pen* is used for the latter kind (Hotopf, 1980), on analogy with the term *slips of the tongue* for the corresponding phenomenon in the spoken medium. There does not seem to be any established term for the former category; I shall use Wing & Baddeley's (1980) term *convention errors*.

However, it is often impossible to distinguish slips from convention errors, given the written material as the only source of data. Since I had no opportunity to check with the writers in the analysis of the corpus in this paper, I do not distinguish between slips and convention errors, but use the term *misspelling* to subsume both.

It is a well known phenomenon in studies of second language acquisition that students will avoid using items which they are not sure of. The same is true in studies of misspellings. Sterling (1983:355) points out that a student who is unsure, for example, of the number of <p>s, <n>s and <s>s in the word *happiness* may avoid the problem altogether by substituting the synonym *joy*, which is far simpler to spell. Given the written work as the sole source of data, there is no way of knowing if this has happened. The frequency of errors involving doubled consonants in a corpus where a student has employed such an avoidance strategy will therefore give a false picture of the extent of the problem.

In corpora of misspellings, certain examples may be misspelt in the same incorrect way on more than one occasion. This may be taken as a clear indication that the misspelling is a convention error rather than a slip. However, it is not clear on what principle an analyst should base his calculations. There seem to be three possibilities. He may (i) count the number of different kinds of misspellings in the data, or (ii) count the number of instances of misspellings, or (iii) somehow weight the calculation so that those misspellings which occur more than once are assigned greater importance than those which occur only once. That is, it seems sensible to distinguish between *misspelling-types* and *misspelling-tokens*, although how this may best be taken into account in a calculation of errors is not obvious. It is clear that calculations based solely on misspelling-tokens may lead to biased statements of tendencies; Yannakoudakis & Fawthrop (1983a:91) admit that their figure for errors in 10-letter words (calculated by token) is deceptive, in that one subject misspelt *monitoring* as **monitering* 47 times in their corpus.

For reasons such as the above, too great importance should not be assigned to *quantitative* analyses of the frequency of particular kinds of error in a corpus of data, even though the quantity of such errors contributes greatly to the stigmatisation of poor spellers. *Qualitative* analyses, which concentrate instead on the nature of the errors rather than their relative frequencies, are in many ways more insightful as indications of writers' problems.

The analysis which the investigator performs on the corpus of data may be pitched at different linguistic levels. Various methods of analysis have been used in the literature, the choice of a particular analysis being determined largely by the analyst's purpose.

An analysis at the surface graphological level was used by Lecours (1966) in his study of the diary of Lee Harvey Oswald. Four categories are used:

- | | | |
|------|--------------|----------------------------|
| I. | Addition | e.g. *serveral (several), |
| II. | Deletion | e.g. *eldery (elderly), |
| III. | Substitution | e.g. *mignight (midnight), |
| IV. | Inversion | e.g. *presenec (presence). |

Nearly all of the few hundred erroneous words found in the diary, several of which contain more than one misspelling (e.g. *foriengress for foreigners), can be classified under these headings." (Lecours, 1966:221)

Since the only conceivable examples which could not be discussed under the above four categories would be grossly incongruous misspellings (e.g. the present corpus [Siew, 1984] contains *slnight for snake), it is not surprising that these four categories handle virtually all examples. However, to say that an analytical system is descriptively adequate (i.e. that "nearly all ... erroneous words ... can be classified" somehow according to this system) does not necessarily imply that it is at all explanatory (i.e. that it explains the causes of the errors, or that the errors should be classified this way). Two cases are sufficient to illustrate this limitation.

Firstly, Lecours (1966:224) analyses the misspelling *scolls for scolds as an example of substitution: 'a letter is erroneously repeated, but ... the faulty doublet takes the place of another component of the involved sequence'. On a purely surface graphological level, this is a descriptively adequate analysis; the <d> is replaced by an <l>, and the preceding letter is also an <l>. However, it fails to capture the seemingly obvious observation that the /d/ of a final /ldz/ consonant cluster is often lost in connected speech (Temperley, 1983). That is, for many speakers the /d/ of a word like holds is often elided, making it homophonous with the word holes. Such an articulatory analysis may explain the absence of a <d> in *scolls.

The second illustration concerns Lecours' examples *promisis (promises) and *expensis (expenses). These would seem to be clear examples of the same phenomenon, namely the plural suffix being spelt <-is> instead of the correct <-es>. This substitution has a natural explanation, in that this suffix is pronounced /iz/, and the vowel phoneme /i/ is conceptually associated with the grapheme <i>. However, Lecours assigns them different analyses; *promisis is called a type I error, since it creates a pair of identical letters (i.e. there is an <i> earlier in the word which is implicitly considered to be an interference factor), whereas *expensis is a type II error, destroying a pair of identical letters (i.e. there is an <e> earlier in the word). A surface graphological analysis which ignores such obvious morphophonological explanations is thus restricted in its usefulness, but may be of importance in certain fields, notably in the devising of spelling-checking devices for word-processors (Yannakoudakis & Fawthrop, 1983b).

Other writers have used analyses at different levels. Wing & Baddeley's (1980) study of university entrance examination scripts investigated, among other factors, the importance of the position of the error within the word, and of the word within the sentence, and of the line within the script. They concluded that errors are most common word-medially, rather than -initially or -finally, and that the position of the word within the sentence and of the line within the script is not statistically significant. Levels of general fatigue do not therefore seem to affect the incidence of misspellings.

Sterling's (1983) work includes an analysis of the role of various factors in the spelling of inflected words, among them morphological structure, syllable structure, and other features of phonology. In terms of phonology, he notes (1983:359) that certain errors such as *probally and *samwiches "are not incorrect spellings of the correct sounds but rather correct spellings of the incorrect sounds" (by "incorrect sounds" is meant that the subject relies on a colloquial or regional pronunciation rather than a more standard or deliberate articulation). This neat formulation of the cause of these errors is not without its problems, however, in that it implies that English orthography corresponds to the correct spellings of the correct sounds. This is patently not the case, as witnessed by the many-to-

one and one-to-many relationship between English graphemes and phonemes, and by the fact that English spelling does not represent any particular accent of English better than the rest.

Similar phonological considerations are appealed to by Ibrahim (1977) and G. Abbott (1979). However, there is an important difference, namely that these works deal with non-native speakers (writers) of English. When foreigners' problems are under examination, an extra category of misspelling becomes apparent, namely those errors which reflect the writer's phonology of English, which contains interference features from the writer's native language phonology. For example, Ibrahim (1977:208) points out that English has two separate phonemes /p/ and /b/ while Arabic has only one (/b/). Misspellings involving substitution of for <p> (e.g. **Jaban*, **bombous*) as well as hypercorrections (e.g. **compination*, **distripution*) are common in his Jordanian corpus. Such misspellings, which one would not expect from native English speakers, occur in addition to those caused by the lack of a close graphemic-phonemic fit in English, which one would expect from native speakers.

Four hypotheses concerning misspellings by non-native speakers were investigated by Tesdell (1987), with groups of Arabic, Chinese, Malay and Spanish speakers attending EFL courses at Iowa State University. His conclusions are as follows. Firstly, non-native speakers make more errors than native speakers; results ranged from 1.13% word error rate for the Malay speakers to 2.55% for the Arabic speakers, compared with the 1.1% found for native speakers by Chédru & Geschwind (1972). "Second, non-native speakers at this proficiency level make more habitual errors than slips [although no indication is given how the two are distinguished]. Third, there may be no significant difference in error percentage between non-Roman [Arabic and Chinese] and Roman [Malay and Spanish] alphabet language speakers" (Tesdell, 1987:83). Finally, Wing & Baddeley's (1980) finding that native speaker misspellings occur most frequently word-medially was replicated with these non-native speaker groups.

E. Abbott (1976), following Haas (1970), uses an analytical system pitched entirely at the phonological level. Misspellings are analysed in terms of the graphemic-phonemic correspondence between the correct written form, the RP phonemic transcription of the intended word, and the incorrect written form. Misspellings are then classified according to the relationship between (i) the pronunciation of the intended word and (ii) a plausible pronunciation of the misspelling. For example, the misspellings **cot* and **throt* (for *caught* and *throat*) are analysed as follows:

Correct written form	c	augh	t	th	r	oa	t
RP phonemic transcription	/k	ɔ	t/	/θ	r	ə u	t/
Misspelt form	*c	o	t	*th	r	o	t

Misspellings can thus be categorised as substitutions, omissions, insertions and transpositions of the graphemic representation of phonemes (cf. Lecours' surface graphemic system discussed above). **cot* and **throt* are therefore substitutions of representations of /ɔ/ for /ɒ/ and /ə u/ respectively (assuming pronunciations of /kɒt/ and /θrɒt/).

E. Abbott (1976) stresses that the graphemic-phonemic relationships can be used as a system for *classifying* types of misspelling, but that the subsequent *explanation* of the causes of misspellings may be found at other non-phonological levels. One situation where this system leads to counter-intuitive classifications is in examples such as **striper*, **liking* (*stripper*, *licking*). Since misspellings are categorised by reference to a plausible pronunciation of the misspelt form, these examples are both analysed as substitutions of an /a i/ representation (/s t r aɪ p ə, l aɪ kɪ ŋ/) for an /t/ representation (/s t rɪ p ə, lɪ kɪ ŋ/). However, the error has clearly been caused solely at the graphemic level, by failure to double the <p>, and use <k> instead of <g>, after the short /i/ vowel.

The potential importance of phonological factors in explaining misspellings has been underestimated by some writers. Lecours (1966:223) found that 13% of all errors involved purely

phonological or lexical factors. However, since his analysis avoids plausible phonological explanations for certain examples (e.g. see **scolls*, **promisis*, **expensis* discussed above), this figure may be questioned; he calls it "a relatively small proportions, and considers phonological factors to be only "a reinforcing element" (p.237) rather than the root cause of many misspellings.

From the above discussion, it should be clear that there are many possible ways of analysing misspellings, just as there are many different reasons for wanting to analyse them. The investigator should therefore select his analytical system to match his purpose. A surface graphological analysis, although criticised above as failing to be explanatory of the causes of misspellings, nevertheless is appropriate for someone devising an automatic spelling checker. However, any analysis which purports to be explanatory should be pitched at as many levels as are necessary, since spellers' errors do not lie at only one linguistic level. Rather, misspellings "are intimately connected with a number of representations, structures and processes involved in writing and spelling" (Sterling, 1983:364).

Even so, it is not always possible to categorise with certainty the cause of a misspelling. E. Abbott (1976:126) notes that, in the preliminary analysis of her Ugandan data, "the following had been classed as spelling errors:

*a *fructured jaw (fractured)*

**tear-gus was used (tear-gas)*

the following as grammatical (morphological) errors:

*they *drunk the water (drank)*

*they *begun buying books (began)*

and the following as lexical errors:

*the car *crushed into the wall (crashed)*

*dressed in *rugs (rags)*

In some cases the substitution of <u> for <a> has 'produced' a form which, although inappropriate in the context, is actually another English word, and in other cases the substitution has produced a 'non-word', but this might be merely fortuitous".

If a speller in the present (Siew, 1984) corpus writes **grapped* for *grabbed*, this may be analysed as a case of phoneme confusion (of the sound /p/ and its voiced counterpart /b/), or of grapheme confusion (of the letter-shapes <p> and). Similarly, the example **your* for *yours* may represent a phonological omission of final /z/, or may manifest a grammatical confusion. The misspelling **principle* (for *principao*) may be considered a matter of phonology or of lexis. The use of analogy with other observed errors may not always help to disambiguate the cause; further examples of all the above competing causes may be found in the corpus.

The corpus

The present corpus was collected by Siew Sook Yee (1984). It consists of 1,392 misspelling-tokens of 870 types, made by 360 fifteen-year-old Chinese Singaporeans in classwork essays. The corpus has been added to the collection of misspelling corpora compiled by Mitton (1985); it is available in computer-readable form from the Oxford University Computing Service, Text Archive No.643. If we define idiosyncrasies as features which do not clearly correlate with other features of the language-producing process, then the corpus contains much in the way of idiosyncratic data. And, as I have just pointed out above, many examples admit of more than one explanation. The following analysis therefore presents those misspelling types which occur with sufficient regularity for them to be considered as general categories; these are then of use to language teachers, spelling reformers and other language experts.

The occurrence figures given below can be taken as rough indications of the relative importance of the different misspelling categories. It should be clear, though, that misspelt words may contain more than one instance of misspelling. For instance, the example **serouding* (*surrounding*) in the

present corpus contains three errors: (i) wrong graphemic representation of the unstressed schwa vowel, (ii) failure to double the <r>, and (iii) omission (probably phonemic in origin) of <n>.

1. Phonemic conflations

I have elsewhere (Brown, 1986, 1988) described the phonemic system typical of Singaporean English. It is sufficient here to note that many of the phonemic vowel and consonant distinctions of RP and other native accents of English are conflated (technically known as *underdifferentiation*).

In general, consonant phonemes are represented more regularly than vowels in English spelling. For this reason, consonant conflations can be analysed in the data with greater confidence than vowels. The main consonant conflations in the corpus are as follows:

*Conflation	tokens/types	Example
/t, d/	12/11	* <i>intented</i> (<i>intended</i>)
/p, b/	13/9	* <i>blank</i> (<i>plank</i>)
/f, v/	12/6	* <i>grief</i> (<i>grieve</i>)
/t, θ/	10/7	* <i>Baltazar</i> (<i>Balthazar</i>)
/s, z/	18/4	* <i>noice</i> (<i>noise</i>)
/l, r/	14/7	* <i>breeze</i> (<i>breeze</i>)
/s, ʃ/	7/7	* <i>finised</i> (<i>finished</i>)
/m, n/	7/4	* <i>noon</i> (<i>moon</i>)

The main vowel conflations are as follows:

/ɛ, æ/	45/23	* <i>demage</i> (<i>damage</i>)
/i, ɪ/	27/10	* <i>leaving</i> (<i>living</i>)
/ɔ, ɒ/	9/6	* <i>boll</i> (<i>ball</i>)
/ʌ, ɒ/	5/4	* <i>botton</i> (<i>button</i>)
/ɪ, ə/	4/4	* <i>accept</i> (<i>except</i>)
/æ, ʌ/	4/4	* <i>crashed</i> (<i>crushed</i>)
/əʊ, u/	3/3	* <i>stoove</i> (<i>stove</i>)
/əʊ, ɔ/	3/3	* <i>deport</i> (<i>depot</i>)

With regard to E. Abbott's (1976) Ugandan data, G. Abbott (1979:174) notes that "the indeterminacy of pronunciation ... is echoed in the results of the analysis by what the researcher calls 'pairing'. Here is one example:

/æ/ for /ʌ/		/ʌ/ for /æ/	
* <i>stamped</i>	<i>stumped</i>	* <i>truck</i>	<i>track</i>
* <i>back</i>	<i>buck</i>	* <i>drugs</i>	<i>drags</i>
* <i>tag</i>	<i>tug</i>	* <i>stump</i>	<i>stamp</i>
* <i>flash</i>	<i>flush</i>	* <i>flushes</i>	<i>flashes</i>
* <i>shaffles</i>	<i>shuffles</i>	* <i>scrumble</i>	<i>scramble</i>
etc. (n=60)		etc. (n=65)	

Not only do the mistakes occur 'in reverse', as it were; but the 'reverse' mistakes actually tend to balance the others numerically".

Similar 'pairing' is found in the Singaporean data.

/æ/ for /ɛ/		/ɛ/ for /æ/	
* <i>man</i>	<i>men</i>	* <i>men</i>	<i>man</i>
* <i>back</i>	<i>peck</i>	* <i>beg</i>	<i>pack</i>
* <i>massy</i>	<i>messy</i>	* <i>stepped</i>	<i>tapped</i>
etc. (n=28)		etc. (n=17)	

/i/ for /ɪ/		/ɪ/ for /i/	
*these	this	*this	these
*seat	sit	*sits	seats
*leaving	living	*linking	leaking
etc. (n=20)		etc. (n=7)	

So, if a Singaporean does not distinguish /i/ and /ɪ/ as in *seat* and *sit*, then these two words are in effect homophones for that speaker, and he cannot use any phonological basis for deciding on the correct spelling for the intended word. Instead, the two spellings must be learnt individually by rote on the basis of semantic and syntactic features.

2. Homophones

While on the subject of homophones, we may note that these are a problem for non-native speakers (as indeed for natives). The Singaporean corpus contains 40 occurrences of 13 types, including **strait* (*straight*), **weather* (*whether*), **principle* (*principal*), **here* (*hear*) and **soul* (*sole*).

3. Suffixes

It is appropriate, when discussing omission and insertion of consonant graphemes/phonemes, to treat the English suffix morphemes as a separate category. The English inflectional suffixes for past tense/past participle, and plurals/3rd person singular present tense verbs/possessives account for the majority of (although not, of course, all) cases of omission/insertion of word-final /t, d, s, z/. Morphemic and non-morphemic examples are given below:

	Omission token/types	Examples	Insertion token/types	Examples
/t/	51/19	* <i>differen</i> * <i>loss</i>	36/28	* <i>felt</i> (<i>fell</i>) * <i>influenced</i> (<i>influence</i> [noun])
/d/	15/8	* <i>fine</i> (<i>find</i>) * <i>simile</i> (<i>smiled</i>)	25/25	* <i>childrend</i> * <i>replied</i> (<i>reply</i> [noun])
/ɪd/	2/2	* <i>crowed</i> (<i>crowded</i>)	8/6	* <i>importanted</i> (<i>important</i>)
/s/	14/6	* <i>strait</i> (<i>straits</i>) * <i>respon</i> (<i>response</i>)	8/8	* <i>sports</i> (<i>spot</i>) * <i>sicks</i> (<i>sick</i>)
/z/	48/15	* <i>other</i> (<i>others</i>) * <i>alway</i> (<i>always</i>)	19/13	* <i>others</i> (<i>other</i>) * <i>expensives</i> (<i>expensive</i>)
/ɪz/	1/1	* <i>banded</i> (<i>bandages</i>)	2/2	* <i>difficulties</i> (<i>difficult</i>)

4. Other consonantal omissions & insertions

Of all the other consonant phonemes of English, the problems created by three (/l, r, n/) far outweigh all the others.

/l/ and /r/ were often substituted for each other, as seen in section 1 above. This confusion is a common feature of Chinese learners of low proficiency. These two phonemes were also often omitted and inserted:

Omitted Word-medially tokens/types: /l/ 10/10 /r/ 13/12

/l/**softy* (*softly*) /r/**children* (*children*)

Word-finally tokens/types: /l/ 8/6 /r/ -

/l/**cancer* (*cancel*)

Inserted Word-medially tokens/types: /l/ 15/12 /r/ 33/6

/l/**accordling* (*according*) **elephant* (*elephant*)

Word-finally tokens/types: /l/ 7/6 /r/ -

/l/**ful* (*fur*)

No examples are given for word-final /r/ since Singaporean English, Re RP, is non-rhotic, i.e. syllable-finally /r/ is not pronounced in words like *quarter*. Altogether, there are 76 tokens of 61

types where <r> is inserted or omitted in potentially rhotic position, e.g. **surpport* (*support*), **suprised* (*surprised*), **merlingerer* (*malingerer*), **Mecedes* (*Mercedes*), **humoursexual* (*homosexual*), **hazad* (*hazard*).

Instances where <l> and <r> are involved, either as phonemic /l, r/ or graphemic <l, r> (or both), and whether as part of a substitution, transposition, omission or insertion, total 90 tokens of 65 types for <l>, and 193 tokens of 130 types for <r>.

Misspellings involving <n> (indeed all 3 nasals /m, n, ŋ/) were also very common.

Omitted

Word-medially tokens/types: /m/ 1/1, /n/ 24/19, /ŋ/ 2/2
**remeber* (*remember*), **covert* (*convert*), **back* (*bank*)

Word-finally tokens/types: /m/ 1/1, /n/ 3/3, /ŋ/ -
**for* (*form*) **garder* (*garden*)

Inserted

Word-medially tokens/types: /m/ -, /n/ 16/11, /ŋ/ 1/1
**throwning* (*throwing*) **linking* (*leaking*)

Word-finally tokens/types: /m/ -, /n/ 3/2, /ŋ/ -
**own* (*owe*)

The grand total of cases involving graphemic/phonemic <m, n> in any capacity was 23 tokens of 18 types for <m>, and 129 tokens of 90 types for <n> (including 12 tokens of 9 types where <n> represented /ŋ/).

An interesting parallel is seen with a specific spelling problem of native speakers discovered in some adults attending literacy courses, some schoolchildren and three neurological patients by Marcel (1980). "It concerns liquids (/l/ and /r/) when preceded in initial consonant clusters by a stop, and liquids and nasals (/m/ and /n/) when followed by a stop or fricative in terminal consonant clusters" (Marcel, 1980:376). Omissions, insertions and transpositions involving these consonants are taken to be caused by difficulties in phonetic segmentation, since it has been argued "that the consonant further from the vowel in 2-consonant clusters is the basic one and the one nearer the vowel is the affix" (1980:395–6). That is, the /n/ of *men* is more basic (and therefore more obviously present to the speaker/listener) than that of *meant* or *mend* (similarly the /l/ of *coal* vs. *colt*, *cold*).

A further complication is added, in that many Singaporeans do not pronounce syllable-final /l/ as a voiced alveolar lateral (Brown, 1986, and forthcoming). Instead, one of three things may happen:

(i) The alveolar tongue contact is lost, leaving a vocalic articulation of the [] type.

(ii) Where this follows a back vowel such as [ɔ, o, u, ʊ] the vocalic articulation may be absorbed by the vowel, giving rise to misspellings such as **aways* (*always*), **pour* (*pool*) and hypercorrections like **all* (*or*), **scole* (*score*), **wool* (*woo*).

(iii) The articulation may be dropped following other vowels, leading to omissions as in **chid* (*child*), **weath* (*wealth*), and unnecessary insertions such as **oval* (*over*), **fomel* (*former*).

Mention should also be made in this section of the widespread use in Singaporean English of the glottal stop as a replacement for syllable-final /p, b, t, d, k, g/ and rarely /tʃ, dʒ/. Since the glottal stop is not a phoneme of English, and therefore has no regular written representation, confusion will arise in Singaporean spelling of final stops and affricates. The glottal stop is a plausible contributory factor in many of the examples of /p, b; t, d; k, g/ conflation, e.g. **jumb* (*jump*), **graid* (*great*), **beg* (*pack*), as well as numerous others, e.g. **accept* (*accept*), **succeed* (*succeed*), **pinic*

(*picnic*), **basis* (*basics*), **destrution* (*destruction*), **bombarment* (*bombardment*), **din't* (*didn't*), **part* (*park*), **blandly* (*blankly*), **breadfast* (*breakfast*), as well as possibly **speech* (*speed*), **snapped* (*snatched*).

5. Glides

Several misspellings involved glides. Certain variation is possible in the phonological interpretation of these examples. I will treat them in 3 categories.

(i) The majority of glide misspellings involved the palatal glide transcribable as /i, ɪ, j/. In this category are included /ju/ examples such as **continised* (*continued*), **unsual* (*usual*), **suitation* (*situation*), **humulate* (*humiliate*). There were 35 tokens of 32 types in this category. Most involved omission of the glide, e.g. **curosimy* (*curiosity*), **victorious* (*victorious*), **testmimonal* (*testimonial*), **strenous* (*strenuous*), **unniversity* (*university*), although some involved insertion, e.g. **toliet* (*toilet*), **disadventiage* (*disadvantage*).

(ii) As a sub-category of the above phenomenon, 15 tokens of 12 types involved palatalisation, i.e. the process whereby palato-alveolar consonants /ʃ, ʒ, tʃ, dʒ/ are created, usually from historical sequences of alveolar consonants /s, z, t, d/ plus /i, ɪ, j/. For many words, the two pronunciations are alternatives, the sequence being considered perhaps more precise or archaic, e.g. *Christian* /kɹɪstɪjən ~ kɹɪstʃən/. All but 2 of these examples involved deletion of the palatalisation element, e.g. **christain*/**christan* (*Christian*), **efficently* (*efficiently*), **Venetain* (*Venetian*), **compassinate* (*compassionate*), **solider* (*soldier*). The 2 examples of insertion of palatalisation were **prision* (*prison*) and **sprange* (*sprang*). Some of the above examples could be analysed simply as graphemic transpositions my point is that the effect of this is to destroy the phonological palatalisation element.

(iii) The final category involves the velar glide transcribable as /u, ʊ, w/. There were only 5 tokens of 5 types, mostly involving the word *language* as the target or as the interfering factor, e.g. **langesage* (*language*), **languges* (*languages*), **laguage* (*luggage*).

6. Syllable structure

a) Stressed vowel omission

In a number of misspellings (16 tokens of 14 types), a (primarily or secondarily) stressed vowel was omitted. This was surprising, since stressed vowels are thought to play an important part in the way words are stored and retrieved from a speaker's memory. Certain of these errors can be explained in that stress is sometimes placed differently in Singaporean English from RP, e.g. **devloping* (*developing*), **exmination* (*examination*), **graunto* (*guarantor*), where, the stress is shifted or given far less prominence than in RP.

Other examples cannot be explained in this way, though: **alrm* (*alarm*), **aplogise* (*apologise*), **avaricious* (*avaricious*), **brigde* (*brigade*), **reprimded* (*reprimanded*), **scond* (*second*), **very* (*every*).

b) Unstressed vowels

A larger number of examples involved misspelling of unstressed vowels. One would expect this, because the commonest unstressed vowel, schwa, may be represented by a wide variety of graphemes. Such errors are also common, therefore, among native speakers.

57 tokens of 40 types contained a substitution of the wrong vowel grapheme, e.g. **appearence*, **referance*, **passangers*, **pleasantly*, **handsame*, **scenary*, **discribed*, **inspector*, **oppurtunity*, **buffolo*, **envolope* (*noun*).

18 tokens of 14 types omitted the unstressed vowel grapheme. In many cases, this occurred where the unstressed vowel might well be lost (elided) in fluent connected speech; the misspelling thus

represented an acute observation on the actual pronunciation of the word, e.g. **beautiful*, **displine*, **monastry*, **opptunity*, **restraunt*, **sevrval*. However, not all cases can be explained in this way, e.g. **civilzation*, **everwhere*, **interst*, **vist (visit)*.

19 tokens of 7 types contained an <1> which, as a consequence of the above omission of an unstressed vowel grapheme, might be considered to have become syllabic. For example, *buffaloes* is misspelt as **buffloes*. On analogy with *shuffling*, which may be thought of as containing 2 or 3 syllables, a 3-syllable interpretation of **buffloes* is still possible. Further examples include **accidently*, **happly* and **luckly*.

In total, a whole syllable (stressed or unstressed) was omitted in 56 tokens of 37 types. That is, a plausible pronunciation of the misspellings contained fewer syllables than the target word.

7. Doubled consonant graphemes

The graphemic phenomenon of doubling consonants is a well-known difficulty for native speakers. It is thus not unexpected that the present corpus from Singaporean writers also contained many such errors. In 85 tokens of 40 types, a doubled consonant was made single. Many of these involved failure to double with suffixes, e.g. **begining*, **grabed*, **unforgettable*, **normaly*, while others involved different structures, e.g. **asuming*, **atitudes*, **corupt*, **embarasing*, **inteligent*, **rabit*.

An unnecessary doubling of consonants was found in 50 tokens of 34 types. Most involved suffixation, e.g. **arrangging*, **hangedd*, **listenning*, **bidding*, **writting*, **morallity*. Others included **appologise*, **banannal* **bannana* and **fillial*.

5 tokens in this category were misspellings of the word *cigarette*, as **cigerrette*, **ciggarette* and **ciggerette*.

8. Silent <e>

A graphemic phenomenon of similar notoriety is the silent <e>. Examples in the present corpus were common. In 60 tokens of 35 types, the <e> was omitted. Most of these occurred in situations where the <e> performs an easily specifiable role, e.g. **amusment*, **arrangment*, **cloths (clothes)*, **extremly*, **practic*, **prepard*, **reptils*, **sincerly*. For others, the role of the <e> is not so clear, e.g. **advertisment*, **heros*, **mor*, **unfortunatly*.

Hypercorrection by unnecessarily inserting an <e>, occurred in 14 tokens of 10 types. In 3 types, this constituted failure to delete the <e> in appropriate circumstances — **arguement*, **changeing*, **rescueing*. Other examples included **punishment*, **slowely* and **stomaches*.

Observations and proposals

Of the above 8 categories of major causes of misspellings by Singaporeans, a reasonably clear line can be drawn between those problems which are caused by anomalies inherent in the English spelling system, and those relating to features specific to Singaporean pronunciation. The former kind are therefore to be found in the spelling of native as well as non-native speakers, whereas the latter category will be unique to Singaporeans.

Problems inherent in the writing system clearly include consonant doubling and silent <e> (which are in fact often related phenomena, both dealing with the graphemic representation of long vs. short vowels). These should therefore be a major concern of any reformed spelling proposal. In the present corpus, far more mistakes are made by making double consonants single and omitting the silent <e> than by hypercorrections of these; this would therefore seem to be the preferable solution (as in *Cut Spelling*).

A writing system with a perfect one-to-one correspondence between graphemes and phonemes

would contain no homophones or homographs, although it might have total homonyms (where both spelling and pronunciation were the same). The existence of homophones and homographs may be taken to indicate the extent of this lack of fit, and they are therefore a source of misspellings for native and non-native speakers alike.

The difficulties associated with /l, r, m, n, ŋ/ may originate in higher-level language processes, and relate to difficulties in phonetic segmentation. Indeed, Marcel (1980) raises doubts about the traditional view of phonemic-graphemic representation, i.e. that speech is composed of basic phonemic units, of which speakers are consciously aware, and that spelling corresponds to the graphemic representation of these phonemes. Rather, it is much more of a 'chicken and egg' situation: "although the alphabet is the most efficient way of reading and writing, [it has been suggested] that it has been invented only once in all history. This would imply that the representation of speech on which it relies (the phoneme) is rather unnatural. In whatever way the alphabet was first invented, it is possible that for each learner today, the concept of the phoneme (tacit if not explicit) comes from rather than leads to the particular alphabetic system, with which he or she is confronted" (Marcel, 1980:401–2).

The remaining four categories of misspelling are specific to Singaporean speakers. Suffixation is a widespread problem but may be thought of as a grammatical (morphological) phenomenon as much as a phonological one. In the corpus there were 46 tokens of 23 types of omission/insertion of the <-s> suffix, and 79 tokens of 54 types for <-ed>. 19 tokens of 18 types involved other affixes, all but one (*unconsiderate* [*inconsiderate*]) being suffixes.

Nevertheless, in certain examples, similar confusion in spelling may be found among native speakers, owing to the process of elision, as when syllable-final /d/ is commonly elided in native speech where it is surrounded by other consonants, which may lead to confusion over morphology (and thus spelling) of certain phrases. For instance, should one talk about a *one-arm bandit* or a *one-armed bandit*? The comparison between native and non-native confusions cannot be drawn too far, though, since suffix-dropping is far more extensive for non-native speakers than the limited native possibilities just mentioned.

The importance of stress and other suprasegmental features (rhythm, intonation, voice quality) is increasingly being emphasised by English language teachers. The stress system of English is viewed as the basic framework of the spoken form of the language, within the bounds of which the individual segmental vowel and consonant articulations are performed; it plays a major role in the achievement of sounding like an English speaker. The surprisingly large number of misspellings relating to stressed vowels shows that stress commands far less importance in Singaporean English than it does for native accents.

At segmental level, teachers of Singaporeans should pay particular attention to the following features of Singaporean pronunciation (roughly in descending order of importance):

1. / e, æ/
2. / i, ɪ/
3. The voiced/voiceless distinction, in particular /t, d; p, b; f, v; s, z/, and the widespread use of the glottal stop
4. Glides, including palatalisation
5. All nasals
6. /l, r/
7. /t, θ/
8. /ɔ, ɒ/

Christopher Upward has pointed out (personal communication) that "one might conclude that no reformed English orthography can cater for interference from other languages, but that reforms

designed specifically for native speakers will also benefit foreign learners. Therefore, there is no point in taking the needs of specific foreign learners into account' [in any spelling reform].

The above proposals for Singaporeans are based on analysis of the corpus of misspellings, and therefore are directly relevant to minimising problems of spelling. They should also improve the intelligibility of spoken communication. The two media cannot, of course, be divorced for foreign learners but, whereas language teachers are usually quick to rectify misspellings, they often allow unacceptably large variation in students' pronunciation to go uncorrected. Following G. Abbott (1979:175), we might therefore conclude that "an 'adequate' pronunciation is one which facilitates accurate spelling".

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[Edgar Gregersen: see [Journals](#), [Newsletter](#)]

4. The Strategy of Spelling Reform in Stages: Pros and Cons Edgar Gregersen

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Advocates of reform by stages — and objections

The Simplified Spelling Society has recently proposed a series of modest reforms rather than a radical one-step overhaul of the present orthography of English. These proposals have been set forth in the Society's leaflet *Tough Though Thought*. As an alternative, some members of the Society have urged that Cut Spelling be promoted as a first step.

In a similar vein, Harry Lindgren, in his *Spelling Reform: A New Approach* (1969), specifically called for a 50-stage reform, to take at least 50 years. Actually, the time period for the full reform would probably — even under optimal conditions — be considerably longer because the very first step may take several years all by itself.

On the other hand, Edward Rondthaler, the proponent of 'Simplified American Spelling', has changed his mind and is now against stages. Originally he proposed about three, but now he feels that anything less than a total overhaul would cause a great deal of confusion, if only because many words would have multiple representations.

My own view is that an overnight total reform would be the most efficient and desirable approach in the long run. But barring enlightened despotism, a Kemal-Atatürk-style revolution, or persuading Oliver North to divert funds from the Contras to stage an orthographic coup in the USA, this is unlikely.

I am not against stages, however, if used as a tactic to arouse public interest in reform. Certainly the use of stages in private publications and in propaganda is quite justified. But getting governments in English-speaking countries to go along with a piecemeal approach is something else

Let us consider two practical situations.

Russian

The first of these is the spelling reform of Russian that occurred shortly after the Revolution. Although initially planned by a commission under the last tsar, Nicholas II, the reform was carried out under the Communists, many of whom saw it as a first step towards their international-minded goal of romanization. In fact, the Soviets created decent roman orthographies for many non-Russian-speaking native peoples in Siberia and elsewhere. Ultimately, Russian nationalism triumphed over Communist internationalism: plans for romanization were abandoned and modified Cyrillic alphabets replaced the roman ones set up just a few years before. Since the major spelling reform for Russian (in which several letters believed to be superfluous were dropped, including <i> and <θ>), only occasional and trivial changes have taken place, e.g. и д т и (*idti*) for и т т и (*itti*), to go.

Improvements of a more thorough kind, such as the marking of stress, have apparently not even been considered.

The basic moral from the Russian situation is that if stages of reform are indeed accepted, each stage had better be self-contained because it may be the last one carried out.

Norwegian

The second practical situation I shall consider is that of Norwegian riksmål/bokmål. The Norwegian situation has considerably more complications than most other languages, in large part because of a powerplay involving social classes and geographic regions. A large part of the controversy that has inflamed the Norwegian reforms does not involve spelling as such, but rather what is to be regarded as the standard spoken Norwegian, which the spelling would reflect.

In the early 19th century, most Norwegians wrote following Danish conventions even though they did not use Danish pronunciation. Let us consider the changes that occurred in the three major reforms of the 20th century, those of 1907, 1917, and 1938, by examining the following five words, given first in their older Danish spellings (a spelling reform in Denmark occurred after World War II, two of the major features of which were abandoning the use of initial capital letters for nouns and the introduction of the letter <å> from Swedish and Norwegian for older <aa>): *Blæk* (*ink*), *bleg* (*pale*), *Kagen* (*the cake*), *Gaden* (*the street*), *Gaade* (*riddle*).

	Blæk	bleg	Kagen	Gaden	Gaade
1907	blek	blek	kaken	gaten	gaate
1917	blekk				gåte
1938				(gata)	
	blekk	blek	kaken	gaten	gate

The reform of 1907 tried to introduce as the standard it reflected the language of educated speakers from Oslo using a relatively formal style. The spelling therefore abandoned for the most part <d, g> between vowels, to reflect the current unaffected pronunciation with <t, k>. The reform also very greatly restricted the use of the letter <æ> (unless it occurred before <r>) and generally substituted <e>. Further, the reform did not deal with vowel length consistently; hence *Blæk* with a short vowel and *bleg* with a long one both wound up as *blek*. This confusion of long and short vowels before final consonants was systematic, so that except for the earlier capitalization distinction, *men* (*Men*) (*damage*) and *men* (*but*) have traditionally been written the same till this day. (But note *menn* [*men*], former *Mænd*, with a short vowel, pronounced the same as *men* [*but*].)

This systematic confusion was a major defect of the writing system. In 1917 it was resolved by usually doubling a final consonant after a short vowel (as had been done within a word, e.g., 1907 *blek* [*ink*] but *blekken* (*the ink*), 1917 *blekk* [*ink*], *blekken* [*the ink*]). The 1907 orthographic peculiarity was memorialized in the phrase:

"Hvad trenger du med pen [penn] og blek [blekk], du som er saa pen og blek?"
(Why do you need pen and ink, you who are so beautiful and pale?)

The 1938 reform introduced few new spelling rules, but tried to change the standard used from upper middle class dialects to urban working class dialects (e.g. *gata*). Although such forms are official they have met considerable resistance.

The result of all these changes is that people in different age groups may continue to write using

spellings that are no longer official. Until quite recently (and possibly still), some older people even used the 19th century Danish conventions. For the most part, people take all this in their stride. Dictionary makers usually just ignore older variants. Even if they didn't, the result would be only slightly fatter dictionaries and considerably more cross-referencing than commonly found.

The moral for us is that reform in stages is not an impossible option, altho it is a messy one. The Norwegian situation got more complicated than need be by juggling nationalism with linguistic requirements (e.g. dropping <w> to become more Norwegian-looking — or at least less Danish-looking — vs. marking length of vowels).

The Simplified Spelling Society

Let us now consider various reforms in stages as proposed for English.

The Simplified Spelling Society in its [Tough Though, Thought leaflet](#) suggested a reform it labeled 'SR:ough'. In line with this reform, the following changes were to be made:

drought	→drou	plough	→plou
thorough	→thurra	though	→tho
dough	→doh	cough	→cof
bought	→baut		

Everyone agrees that traditional spellings with <-ough> are horrible, but an enormous number of problems confront us in solving them.

The least objectionable change is from *drought* to *drou*, since all that is involved is dropping the totally superfluous letters <gh>. With *plough*, one might argue that the same thing applies. But note that another spelling already exists: *plow*. British and Commonwealth speakers of English may brand this as an Americanism — and certainly cultural feelings of this sort must be taken into account. But are we to reject all reasonable forms because they are American? Furthermore, *plou* has a decidedly unenglish look to it because <-ou> normally doesn't occur finally, only <-ow> (*how*, *now*, *cow*, etc).

The form *thurra* for *thorough* is not Nue Speling (where it is written as *thurro*). And the suggested spelling of the final vowel opens a whole new kettle of fish that I'm afraid is more unfortunate than one might think. Altho the RP pronunciation of the word ends on the same vowel as *China*, the normal US and Canadian pronunciation of the word has the final syllable the same as in *follow*, *sorrow*. To spell this word (and also *borough*) with final <-a> rather than a compromise <-o> would tend to split the English-speaking world. I think it unwise to introduce such complications into the earliest stages of reform and probably into any stage of spelling, which it seems to me should be as internationally acceptable as possible.

The spelling *tho* is fine (tho I myself prefer *dho*). But *doh* for *dough* is just out of the blue and certainly goes nowhere. The Nue Speling form *doe* would have made sense, but no spelling system for English I know advocates <oh> for the vowel sound in *go*.

The spellings *cof* and *baut* for *cough* and *bought* again introduce dialect differences. In the speech of older RP speakers the vowels of both words are often pronounced the same, and this is also true probably for most Americans. To use different vowels in the spelling without any further clarification is therefore quite unfortunate. (By the way, words such as *bought*, *ought*, *fought*, *frouht*, *wrouht* could perhaps better be spelt as *boht*, *oht*, *foht*, *froht*, *roht* in a first stage:

dropping the <ug> should appeal to proponents of Cut Spelling and it more nearly approaches an international value for vowel representations.)

To sum up this rather tortuous discussion: 'SR:ough' is simply too complicated to be a desirable early stage of reform. A considerable number of decisions of unequal value have to be made at once. Sometimes the changes made do not suggest the general direction reform is going (as most obviously with *doh* for *dough*). In short, 'SR:ough' should be abandoned.

Harry Lindgren

The suggestions made by Harry Lindgren have much that is admirable to my mind. For example, he maintains that each and every step must be unambiguous and complete. He seems also to suggest that there must be a concern for the sequence of stages. I for one think it would be very unfortunate to change *hence* to *hens* before present *hens* had become *henz*; or to change *off* to *of* before present *of* had become *ov*. Lindgren in effect acknowledges the same sorts of problems, but without actually giving the details about specific stages, except for SR:l, which always writes stressed short /e/ as <e>.

However, his scheme does present serious problems, most notably in his insistence that the 'obscure' unstressed vowel shwa [ə] as found in *about*, *China*, and so on, be consistently shown (as <'>). This decision immediately confronts us with a very fundamental question: preserving the unity of the English language community. Enormous variation exists with regard to how unstressed vowels are pronounced. Consider simply the following few examples contrasting usage in RP and one variety of American English.

	<i>RP</i>	<i>General American</i>
<i>baboon</i>	bə'buwn	bæ'buwn
<i>python</i>	'pajθn	'pajθan
<i>omit</i>	ə'mit ow'mit o'mit (moribund?)	o'mit
<i>cocaine</i>	kə'kejn ko'kejn (moribund?)	ko'kejn
<i>literary</i>	'litərəri 'litrəri litri	'litərenij
<i>testimony</i>	'testiməni	testimownij

Another drawback to showing shwa is that doing so obscures the relationship between related forms as in *phə'tɔgrəfə* vs *phótəgrəf*, or *hístɔricəl* vs *híst(ə)ri*.

Whatever the final judgment as to how such unstressed vowels should be shown, any decisions that would tend to break up the unity of the English-language community should be weighed very seriously and delayed until the very last stage of reform — if ever adopted at all.

In other words, it strikes me that the approach used at present in Russian of not showing vowel reduction could be adopted in English — or rather retained, since traditional English spelling does precisely that for the most part. (In more technical terms, I'm advocating the orthographic inviolability of the morpheme, the smallest unit with meaning — e.g. the *photo* part of *photograph[erl]*.)

The danger of having to reverse reforms

A third and last situation to be considered comes from a Cut-Spelling-like approach to reform. (Chris Upward assures that this particular solution is not advocated by proponents of Cut Spelling, however*). Consider the traditional English spelling *breathe*. One possible reduction within a Cut Spelling approach would certainly seem to be *brethe*. Since this is so, forms such as *sleepy*, *sleeping*, and *sleeper* might be cut to the shorter forms *slepy*, *sleping*, and *sleper*, even tho the underlying form *sleep* would have to be retained unchanged. Here we have, first of all, a problem of unnecessarily breaking up related forms (i.e. we would violate the integrity of the morpheme). But what about the final stage of reform? What if we decide that the vowel sound of *sleep* is always to be written <ee>? We would go back to the traditional spelling.

An even worse situation could occur with the two words *who* and *hoe*.*

TO	<i>who</i>	<i>hoe</i>
	\	/
Intervening stage (CS)	<i>ho</i>	
	/	\
Final stage (NS)	<i>huu</i>	<i>hoe</i>

Here the intervening reform stage lumps together two words pronounced differently only to have them re-differentiated in the final stage.

To avoid such awkward situations, which could only invite scorn from people opposed to spelling reform, stages must be planned with an eye to the final comprehensive system. It has been said that the proposals of the Simplified Spelling Board of the United States (now defunct) failed precisely because it proposed no final comprehensive scheme and gave the impression of wandering in the dark with some very ad hoc solutions. (See their *Handbook of simplified spelling*, 1920). For example, for the sound of the vowel in *sleep* no clear direction was given. Words ending in <-ceed> (*proceed*, *succeed*, *exceed*) were to coalesce with the <-cede> suffix (like *precede*); hence, *procede*, *succede*, *excede*. Words with <ei> were to be rewritten with <ie> (*reciev* for *receive*); words with <ae> and <oe> were to be cut to <e> at the beginning and middle of a word but not finally: *fenix* for *phoenix*, *enciclopedia* for *encyclopaedia*, but *alumnae* unchanged. This approach is the way of madness.

Let me restate my position: any kind of piecemeal changes, even if single words, may be a justifiable strategy for jarring the public into an awareness and eventual acceptance of rational spelling. But these changes should be self-contained and most of all should not have to be undone in later stages. My own preference for a stage one reform would simply introduce new symbols that are necessary for a decent spelling of English but have no tradition behind them such as accent marks to indicate stress, or the Klasik Nue Speling forms <dh, zh, ngg, aa, uu>. To do so would in effect get the most difficult job done relatively then have the embarrassing situation where the end result painlessly.

However, once a momentum for change is achieved, spelling reformers should abandon a strategy of stages and push for a comprehensive, one-time reform.

[*Pt 2 of 'Conflicting Efficiency Criteria in Cut Speling' in *Journal* 1989/1 J10, will discuss how CS could treat these long vowels and potential ambiguities such as *who:hoe*. — Ed.]

5. A Sibilant Extravaganza, or How on Earth could Johnny Read? Julius Nyikos

Prof. Nyikos had the benefit of education in the phonographic Hungarian orthography, and soon mastered the writing of Latin, German and Finnish. He resumed learning English orthography on emigrating to the USA in 1949, and hopes to be comfortable with it by 2030. He is Prof. of German and Gen. Linguistics at Washington & Jefferson College, Washington, Pennsylvania, and founder-president of the New English Orthography Institute. He is now engaged on a major study, *Complete Overview of the Enigmatic English Spelling System: the First Definitive Survey of the English Phonemes in Search of all their Graphemes*, from which comes the following paper (given at the Society's [5th International Conference, July 1987](#)). "Johnny" refers to Rudolf Flesch's critique of look-and-say teaching methods, *Why Johnny Can't Read: And What You Can Do about It*, Harper and Row, 1985.

Still-spreading and never-ceasing functional illiteracy can be eliminated only if a substantially simplified, circumspectly systematized and succinctly standardized spelling system is introduced.

The scientific term for spelling system is 'orthography'. A new orthography's assignment must be to sustain the suitable, simple and/or consistent, systematic written symbols of our speech sounds and its task to dismiss the thousands of exceedingly stupid and unnecessary idiosyncrasies of the existing obsolete nonsystem to axe them mercilessly. This disastrously mixed-up nonsystem should be supplanted not in months but through years, step by step, so as to facilitate a sensibly slow and smooth switchover, absolutely devoid of any hustle and bustle. Nothing less makes sense and nothing else but sweet persuasion seems necessary, since such a new orthography's simplicity and conduciveness to learning are decidedly susceptible to enthusiastic acceptance. Good will ambassadorship, circumspect negotiations and expert craftsmanship can smooth its successful implementation, without any exhortations. No swords need be drawn: no danger of anyone going berserk in overheated debates.

We can certainly count on the students' massive support; in fact, a radically simplified system will be the answer to the sincere requests and SOS signals of countless hapless youngsters, all the way from Leicester and Worcester, Massachusetts and the Chesapeake Bay through Charleston, South Carolina, and Robinsonville, Mississippi, to Tucson, Arizona, and Crescent City, California. A truly systematic system will be a dream come true to foreign students of English from the isthmus of Panama to Szechwan Province and the Yangtze River of China.

The existence of the present spelling mess has been extended for centuries by arch-conservatives who sentimentally reminisced and considered all stuff inherited from deceased ancestors sacrosanct. Behind the façade of mostly pseudoscientific historicism, they obstinately refused to assess how unnecessarily immense Johnny's task was. With instinctive finesse and a selfish exclusive-club-philosophy, these phalanx-like forces persistently refused to excise all that had obsolesced over time. The docile grass roots masses listened to them as meekly as serfs to the czar (also spelled: tsar and tsar).

Eventually the principle crystallized with icy clarity: whoever has the audacity to mess with English spelling is an iconoclast. This is how our spelling became an orthodoxy, nursed and pampered with the TLC usually reserved for a nice old granddad with Alzheimer's disease.

Most of us have acquiesced in this mess, largely, I suppose, because we have been persuaded by the school establishment — who likewise had been convinced by their teachers and the professors — that, since historic developments had forced this spelling complexity on our language, it is an unavoidable necessity ... We have been swallowing this doctrine like hungry sixth graders gulping down pizza or french fries smothered in catchup, like Oktoberfest beer guzzlers downing schnitzel or knockwurst.

Linguists whose speciality is the study of the essence of spelling systems, say this is grievously false and indefensible. English, as a language, has no weakness: certainly none which could prevent specialists from transforming the existing spelling chaos into an ABC system whose simplicity will make it easy to learn to read and write correctly. A simple — or complex — orthography can be devised and revised for any language. English is no exception. The magnificence and exquisite beauty of our richest language will only be enhanced by a streamlined, rule-governed orthography.

Let's face it: the disturbing schism that has been gaping betwixt English speech and English spelling is now at an impasse, brought about by the sudden and swift advance and expansion — one might say: blitz — of the deluxe TV and the fancy computer. This schizophrenia is concisely demonstrated by this treatise. Notice, please: these sentences, which have been purposely worded in what might boastfully be termed Nyikos' (spelled also: Nyikos's) self-illustrating style, effervesce with the constant emergence of the hissing s speech sound, but they are also cursed with 58 ways of spelling this simple sibilating consonant. Of these, some are easily recognizable; others are less obvious but readily substantiated. (For complete listings and explanation see pages 3–5.)

Surprised?... — Linguists' and lexicographers' surprise is almost as great. Only recently has all-encompassing refined research been able to approximate a comprehensive classification of nigh all letters and letter combinations English uses to represent its 40 speech sounds. The count to date is somewhere between 900 and 1,000. No wonder it took you and me twelve of our best years to master an incredible average of 23–24 unpredictable diverse ways of spelling each of our speech sounds. Fifty-eight ways of writing the sound s is just one gross example exhibited here to give substance to our question, "How on earth could Johnny read?!..."

Had the psychological warfare unit of the Nazis tried to devise something to cause a standstill in our ranks, they could scarcely have come up with a spelling non-system worse than the one in use. It's sad that blue ribbon commissions, which excellently assessed miscellaneous causes for much incompetence in our schools, missed assigning the greatest importance to substituting a sensible spelling system for the existing monstrosity. Not only was it not their principal concern, it totally escaped their probing X-ray vision. The density of the forest of problems hopelessly obscured the root cause...

Yet that is the crux of saving our schools from the menace of the ever-rising incidence of functional illiteracy and a subtly progressing bankruptcy of the learning process. A basic, simplifying restructuring of English spelling is our greatest chance for a stupendous reversal of the sadly

sagging standards of America's schools. Its importanceu and urgency transcend all elsee.

It might serve as a postscript to say: Some oh-so-sensitive souls might suspect that a systematizing simplification of our spelling would make English script exsanguine, depriving it of its "rich Greek and Latin elements and its Shakesspearean etcetera heritage". — All those in favor of keeping our spelling a collection of museum pieces should be consistent enough to exchange their state-of-the-art automobiles for chintzy chariots and their word processors for clay tablets and styluses. Only then should they venture to pontificate, about what Johnny's part should be in the preservation of exsiccated orthographical mummies of past centuries. Respect is due historical artifacts, but they should be on exhibition in our museums and archives and certainly not in our youth's spelling lessons.

You do not feel any remorseu when discarding wastepaper into a wastebasket. But it should be felt as a grievous losss to keep wasting billions and trillions of man-hours of strenuous effort on rote memorization of thousands of whimsical, illogical and contradictory sequences of letters and letter combinations.

Curiosity for learning ought to serve higher purposes: incomparably higher ones. Our children should not have to go to such unnatural lengths to learn to read the words that they so effortlessly and joyously learned to speak. Nor should native speakers of all other tongues of the world have to endure such exorbitant exertions in order to learn to read and write our beloved English.

[*Journal of the Simplified Spelling Society, 9, 1988/3 pp13–16 in the printed version*]

Statistics of the 58 Letters/Letter Combinations representing the Speech Sound /s/ as used in this Article

5 whole letters

1) <s> The single letter <s> has occurred 245 times, representing the sound /s/ in altogether 216 words, counting prefixed, suffixed and compound versions as separate words. (Of these words, 14 were repeated once, 4 three times, one four times, 3 six times and one — the word *spelling* — 17 times.)

2) <c> *neverceasing, illiteracy, circumspectly, succinctly, unnecessary, mercilessly, facilitate, necessary, simplicity, conduciveness, deceidedly, acceptance, circumspect, successful, certainly, sincere, city, centuries, deceased, sequences, ancestors, historicism, unnecessarily, forces, docile, principle, audacity, necessity, certainly, magnificence, fancy, concisely sentences, recently, principal, concern, incidence, process, urgency, etcetera, pieces, processors*

3) <t> *negotiations*: in the use of countless speakers of English who pronounce it 'negosiashunz' (rather than 'negoshiashunz')

4) <z> *czar, tzar, pizza, schnitzel, blitz, chintzy*: In *schnitzel* and in *blitz* the letter <z> and in *pizza* the second letter <z> clearly represents the sound /s/ *schnitsel* (or *snitsel*) and *blits* being their only recorded ways of pronunciation. The letter <z> represents the sound /s/ also in the words *czar, tzar* and *chintzy* in the use of most speakers of English who pronounce them *tsahr* and *chintsee* respectively.

5) <x> *phalanx*: in the use of countless speakers of English who pronounce it *falansz* (rather than *falanks*)


2 apostrophized versions of a letter and one letter with a diacritic mark


6) <s'> *students'*, *linguists'*, *Nyikoss'*


7) <'s> *let's*, *it's*, *youth's*


8) <ç> *façade*


The first halves of 2 letters and the second halves of 3 letters

9)  Since the *name* of the *letter* <c> is pronounced *see*, it represents two *sounds*, namely /s/ and <ee>. Hence, the *sound* /s/ is symbolized only by the first half of the letter <c> in TLC and ABC.


10)  In the use of many speakers of English who pronounce *Nyikoss* *Nikosiz* (as they pronounce 'Venuss flytrap' 'Veenusiz flytrap'), only the first half of the first, apostrophized letter <s'>, represents the *sound* /s/ because the second half of this letter <s'> and the last letter <s'> together symbolize the sound sequence *iz* in *Nikosiz*.


11)  Since the *name* of the *letter* <s> is pronounced *es*, it represents two *sounds*. Hence the *sound* /s/ is symbolized only by the second half of the letter <s> in SOS.

12)  Since the letter <x> represents two sounds, namely /ks/, in the following words, the sound /s/ is symbolized in them only by the second half of the letter <x>: *mixed-up*, *expert*, *extended*, *exclusive*, *orthodoxy*, *complexity*, *complexx*, *exquisite*, *betwixt*, *expansion*, *lexicographers*, *cruxx*, *exchange*,

13)  Since the letter <z> represents two *sounds*, namely /ts/, in the words *Alzheimer's* disease, *schizophrenia*, *Nazis*, the *sound* /s/ is symbolized in these words only by the second half of the letter <z>.

The last third of one letter and the first third of an apostrophized letter

14)  Since the name of the *letter* <x> is pronounced /eks/, this letter's *name* represents three sounds. Hence the *sound* /s/ is actually symbolized by only the last third of this letter in *X-ray*.

15)  The *sound* /s/ is represented by only the first third of the apostrophized letter <s'> in the use of many speakers who pronounce *Nyikos'* as *Nyikosiz* (as they pronounce Saint Agnes' Eve as Saint Agnesiz Eev, e.g. in John Keats' poem) because the other two thirds of this letter <s'> symbolize the sound sequence /iz/.

17 two-letter combinations, based on letter <s>

16) <ss> *assigment*, *dismissss*, *unnecessary*, *mercilessly*, *lessss*, *necessary*, *conduciveness*, *ambassadorship*, *successful*, *massive*, *countlessss*, *haplessss*, *Massachusetts*, *messss*, *assess*, *grassss*, *masses*, *professors*, *essence*, *weaknessss*, *hissing*, *all-encompassing*, *classification*, *grossss*,

assessed, missed, assigning, hopelessly, progressing, process, lessons, effortlessly, loss

17) <se> *sense, else, deceased, immense, nursed, false, concisely, treatise, purposely, please, cursed, diverse, worse, use, remorse*

18) <sc> *scientific, susceptible, Crescent City, pseudoscientific, unsusceptible, miscellaneous, transcend*

19) <s's> The apostrophized *letter* <s> plus the following *letter* <s> in *Nyikos's* represent the sound /s/ together, whenever pronounced *Nikos*, the preferred choice of most speakers of English when using the possessives of many names ending in <s>, for instance, *Venus's* flytrap, when pronounced *Veenus* flytrap.

20) <st> *hustle, bustle, listened, postscript*

21) <sw> *swords, answer*

22) <sz> *Szechwan*

23) <ps> *pseudoscientific, psychological*

24) <es> *Charleston, Shakespearean*

No speakers of standard English pronounce certain letters which immediately follow or immediately precede the letter <s> in particular words. These so-called silent letters are silent now, but they were used to represent actual sounds which, through the centuries, became slurred over by increasing numbers of speakers. We just listed several such two-letter combinations based on the letter <s>: <sc, st, sw, ps, es> Countless speakers of today's standard English do not pronounce eight other similarly situated letters either, that is to say, they slur over eight other sounds in the same way that their forebears skipped over the /w/ sound in *sword*, the /t/ sound in *listen* and the /p/ sound in *psychology*. Most of these speakers are absolutely not aware of their slurring, (nor are their listeners), but precise recordings by lexicographers and linguists confirm not only the existence but also the extent of such habits. They are so widespread as to be considered within the limits of acceptability. This is why these variants are included in this survey. (Exclusively such variants have been quoted whose acceptability is unquestionably attested by the authoritative *Webster's Ninth New Collegiate Dictionary, 1984.*)

25) <si> *density, curiosity*: pronounced by many *denstee* and *kyoorioſtee* respectively

26) <ts> *craftsmanship, tsar*: pronounced by many *kraſmanship* and *sahr* respectively

27) <sa> *Chesapeake Bay*: pronounced by many *Chespeek Bay*

28) <so> *philosophy*: pronounced by many *filosfee*

29) <su> *suppose*: pronounced by many *spohz*

30) <ns> *Robinsonville*: pronounced by many *Robisunvil*

31) <rs> *berserk, knockwurst*: pronounced by many *beserk* and *nokwoost* respectively

32) <t's> *let's*: pronounced by many in rapid speech as *les*

9 three-letter combinations and 2 four-letter combinations, all based on the letter <s>

33) <sce> *reminisced, obsolesced, acquiesced, effervesce*

34) <sse> *finesse, impasse*

35) <ssa> *ambassadorship, Massachusetts*: pronounced by many, especially in rapid speech, as *ambasdorship* and *Masschoosets*, respectively

36) <ssi> *necessity, classification*: pronounced by many, especially in rapid speech, as *nesestee* and *klasfikaishun* respectively

37) <sch> *schnitzel* and *schism*: pronounced by many *snitsl* and *sizm* respectively

- 38) <sth> isthmus
- 39) <sts> postscript: pronounced by many pohscript
- 40) <ste> wastepaper, wastebasket: pronounced by many wasepaper — wasebasket
- 41) <ths> months, lengths pronounced by many mons and lengs respectively
- 42) <ssis> Mississippi: pronounced by many, especially in rapid speech, as Missipee
- 43) <rces> Worcester: Wooster — its only recorded pronunciation

7 two-letter combinations and one three-letter combination, based on the letter <c>

- 44) <ce> introduced, since, acceptance, existence, nice, convinced, forced, essence,
magnificence, enhanced, face, advance, notice, emergence, substance, scarcely,
incompetence, menace, incidence, chance, importance
- 45) <ci> simplicity, principle, principal: pronounced by many, especially in rapid speech, as
simplistee and prin~~s~~pl respectively
- 46) <cc> succinct: pronounced by many susinkt
- 47) <ch> catchup: pronounced by many katsup
- 48) <cs> Tucson: Tooson, its only recorded pronunciation
- 49) <cz> czar pronounced by many sahr
- 50) <tc> bankruptcy: pronounced by many bankrupsee
- 51) <ces> Leicester: Lester, its only recorded pronunciation

4 combinations with one-and-a-half-letters, 2 with two-and-a-half, all based on the letter <x>

Since the *letter* <x> represents the *sound combination* /ks/, only the second half of this letter symbolizes a component of the *sound* /s/, the other component of the /s/ *sound* being symbolized by the *letter* (or by two *letters*) following the letter <x> in each of these combinations:

- 52) **XC** exceedingly, exception, excellently
- 53) **XE** axe, deluxe
- 54) **XH** exhortations, exhibition
- 55) **XS** exsiccated, exsertions
- 56) **XSC** exscind
- 57) **XTH** sixth: pronounced by many siks

One two-letter combination, based on letter <z>

- 58) <tz> Yangtze River: the only English pronunciation being Yangsee River, and tzar and chintzy: pronounced by many sahr and chinsee respectively.

6. Conflicting Efficiency Criteria in Cut Spelling —1

Christopher Upward

Most of this paper was presented at the Society's [Fifth International Conference](#) in July 1987; further aspects of the question will be examined in a sequel in the 1989/1 issue of the *Journl*. The Cut Spelling used here is fairly radical, and readers will find many of its more problematic forms discussed in the article below (or in the sequel).

0 ABSTRACT

With its 3 rules for removing redundant letters, the Cut Spelling technique for reforming English spelling substantially improves the efficiency of the written language in respect of economy, simplicity and phonographic regularity, while ensuring the new orthography and the old are mutually compatible. However these criteria of economy, simplicity, regularity and compatibility conflict with each other in certain well-defined orthographic environments, and decisions then have to be made as to which criteria should take precedence. Thus: excessive economy benefits the writer at the expense of the reader; the visual disturbance of removing silent initial letters (as in *naw*, *nee*, *rong*) reduces compatibility between old and new forms; and mechanical application of the 3 cutting rules sometimes blurs crucial distinctions (as between long and short vowels). Sub-rules are therefore required, to allow exceptions to the main rules. This article discusses the main circumstances in which such conflicts arise and makes some tentative suggestions as to how they may best be resolved.

1. INTRODUCTION

1.1 The rationale of Cut Spelling (CS)

The CS approach to English spelling reform, as originally conceived by Valerie Yule and subsequently systematised by the present author, primarily involves the omission of redundant letters, rather than any wholesale respelling of words or sounds. This approach has several important features to commend it.

- Historically: As shown in the article *Cut Spelling — a Linguistic Universal?*, [\[1\]](#) the writing systems of many languages (including English) have evolved particularly by omitting symbols that have outlived their usefulness; omission is thus a common manifestation of orthographic progress.
- Syllabically: Omitting redundant letters preserves the familiar appearance of words (gestalt) better than does substituting letters; as a result, readers skilled in Traditional Orthography (TO) can read CS without instruction, and children educated in CS can still read TO.
- Educationally: Omitting redundant letters eliminates many of the most difficult features of TO which are especially error-prone, as demonstrated in the article *Can Cut Spelling Cut Misspelling?* [\[2\]](#)
- Internationally: Omitting redundant letters not only restores many more phonographic spellings used in Elizabethan or Chaucerian times, but it also brings many English words closer to the spelling of related words in other European languages, so helping English speakers learn foreign languages and non-native speakers learn English.
- Phonetically: Omitting redundant letters rarely encounters problems with conflicting accents, since it starts by asking what is wrong with TO rather than how words are pronounced.
- Economically: CS makes the whole writing system of English less cumbersome, all writing tasks (whether handwriting, typing, printing, etc) can be performed 10%+ faster, and correspondingly less space and fewer materials are needed; in an efficiency- and economy-conscious world, that is an important benefit.

1.2 The rules of CS

To establish which letters are redundant, the definition used is: 'letters offering no syllabic assistance to the human reader or writer'. They nearly all fall into one of 3 categories:

1. Some, like in *debt*, are totally irrelevant to pronunciation. Rule 1 of CS therefore produces the form *det*.
2. Many, like the alternative spellings for the 'obscure' vowel shwa when it precedes final <l, m, n, r> are highly unpredictable; similarly the insertion of <e> in many inflexions gives rise to frequent spelling uncertainty. TO itself sometimes omits these vowel-letters anyway (as in *apple, spasm, isn't, centre, hated*, rather than *appele, spasem, isen't, centere, hateed*), but CS does so regularly. Rule 2 of CS thus produces the forms *apl: chapl, spasm: fathm, isnt: presnt, centr: entr, hated: hatd, puts: pushes, volubl: valubl*.
3. TO doubles consonants frequently but inconsistently and usually unnecessarily. Rule 3 of CS says that consonants are not normally doubled, so regularising numerous spellings that differ by single or doubled consonants in TO, as *copr: propr, rabit: habit, ad: bad, abbreviate: abrij, afraid: afray, inoculate: inocuus*.

With a little practice these rules are soon mastered, and once learnt can be applied straightforwardly across the language. However there are circumstances where such cuts are phonographically misleading, or have disadvantages that may outweigh the advantages, and this study will try and catalog them. Readers who have not attempted to use CS may form the impression that the whole system is riddled with problems; but this is not in fact so, the system is generally clear-cut and simple to operate, and it must be remembered that no spelling system has yet been devised for English that avoids all problems. CS has to be judged not by the legacy of problems it inherits from TO, but by how much it improves on TO. The problems are points of detail, and are not central to CS as a system; but they do need further discussion and research. Nevertheless, despite some remaining uncertainties in the detail, the CS system as a whole has been refined and basically proved itself through years of practical experience, as readers will appreciate if they have followed its development in the pages of the *SSS Newsletter and Journal* since 1985.

In addition to the 3 rules for cutting letters, the author currently applies 3 limited letter-changing rules which also remove serious inconsistencies in TO and at the same time shorten the spelling of many words. These letter-changing rules are:

- When TO spells /f/ as <gh> or <ph>, CS substitutes <f>: *tuf, fotograf*.
- When TO represents the vowel in *high, sign* by <ig>, CS substitutes <y>: *hy, syn*.
- The sound of <j> is always written <j>, never <g, dg>: *juj, jinir*.

These letter-changing rules are not an essential part of CS, but are currently included because the corresponding TO spellings create considerable uncertainty and difficulty, and, unlike most other letter-changing rules, these three are simple and self-contained, and do not give rise to a chain of complications elsewhere in the system.

2. BREVITY vs READABILITY

2.1 Brevity as efficiency

Brevity itself can mean efficiency, although it does not necessarily do so. We can see this if we compare the 3 alternative written forms of the names of years: Arabic numerals (e.g. *1957*), Roman numerals (e.g. *MDCCLXVII*), and alphabetic letters (e.g. *nineteen-hundred-and-forty-seven*). The Arabic numerals take up least space, are read and written fast and accurately, and do not require a knowledge of English. Relatively short and also internationally understood, but awkward both to encode and decode, are the Roman numerals: most readers will probably not immediately recognise whether or not the above example represents the same year as the Arabic numerals or the alphabetic rendering. The alphabetic form by contrast requires a knowledge of English and is cumbersome both for readers, who require at least two eye-fixations, and for writers, who need nearly 8 times as long to write it as the Arabic numerals. In these examples, the most economical form is the most efficient for both readers and writers.

2.2 Excessive brevity

However, a conflict of efficiency criteria can arise from the different needs of writers and readers. For the writer the shortest possible representation of words may be the most efficient; but, as with shorthand, excessive brevity can impede reading.

The potential problems of excessive brevity are seen in Ayb Citrons *SPD SPLG*, [3] which achieves much greater economy than CS, but at the cost of full sound-symbol correspondence. *SPD SPLG* uses 100 wordsyns (single letters, digraphs, trigraphs and some longer forms, each representing a whole word whose TO form is much longer), but the script is hard, if not impossible, to decipher, unless one learns the code.

Consider the sentence

D u hav t x tu fays t cmtty n c u d t job?

which should be read as "Do you have the experience to face the committee and can you do the job?"

As well as needing to memorize the 100 word-syns, the reader may face several perceptual difficulties with this script:

- a string of single-letter words like *n c u d t* is not easy to distinguish from a single word with widely spaced letters.
- a 1-letter misprint may disrupt the meaning of a whole sentence, instead of slightly distorting the appearance of a single word, which is usually the worst effect of misprints in TO (see Knowles on Information Theory [4]).
- a succession of short words of equal length may be harder to read fluently than words of more varied length — though the psychology of reading in Chinese and Japanese, whose characters normally occupy a square block of similar size, may have more to tell us about that.

2.3 How much CS affects reading speed?

What effect CS might have on reading speeds is a complex question. John Kerr gave a psychologist's view: [5] "Most of the time spent during reading is taken up by the processes involved in understanding the text rather than simply decoding the symbols ... readers of a system like CS may not read faster, for the same reasons." Valerie Yules' experiments [6] at least demonstrated that adult readers quickly overcome the setback caused by the initial unfamiliarity of CS. The present writer has no experimental evidence, but he needs further persuading that no time at all can be saved if fewer eye-fixations are required (the fast reading of Arabic numerals in year-names shows that brevity can help at least sometimes).

There is however a rather different reason why the greater brevity of CS may not produce correspondingly faster reading. When word-length is reduced, it automatically follows that the *variety* of word-length is reduced too; but length is in itself one of the distinctive features of words in their written form, so that the words *their written form* (5, 7, 4 letters respectively) are in that respect more obviously distinct than are *their written form* (4 letters each). Therefore it is possible that with more uniform word-length, a given line-length may have to be read more slowly and with greater concentration, although, even if 100 lines of text take longer, this does not mean that 100 words cannot still be read faster in CS. Only psychologists can resolve such questions; the experiments could be conducted in TO to establish whether readers scan texts more slowly when word-length is more uniform.

The following sentences highlight by exaggeration certain effects on the appearance of text that can arise when word-length is cut.

- 1 CS: *Confrences ar pland anuly in Lestr.* (28 letters)
TO: *Conferences are planned annually in Leicester.*
(40 letters)
- 2 CS: *He ot to go to th in if lo clouds threin.*

(30 letrs, 9 consecutiv 2-lettr words)

TO: *He ought to go to the inn if low clouds threaten.*

(38 letrs, maxim 3 consecutiv 2-lettr words)

3 TO: *The two men had now put the big box in the hut.*

(11/12 words of 3 letrs)

Sentnce 1 is over 40% shorter in CS than in TO, and readers, will observe how much faster they scan the CS version. Sentnce 2 shows how, by shortening spellings generally, CS reduces words to a more uniform length; in this extreme case the long string of 2-letter words makes them visually less distinctive and therefore perhaps requires more concentrated reading (with the added difficulty here of frequent repetition of <o, t> in a very short space); but the 27% longer TO version may still take longer to read. TO itself can of course also contain a succession of words of equal length, as in Sentnce 3; the reader may like to consider whether it appears harder to read than more varied text might. If experiments proved that strings of 2-letter words, as in CS sentence 2, do impede reading, the difficulty could be reduced by leaving the definite article and some other common short words uncut.

It is thus clear that the brevity of CS benefits the reader, but it is not yet clear how far, if at all, such brevity helps the skilled reader. But even if the skilled reader is scarcely helped, the learner will benefit from the much greater regularity of CS and its relative lack of difficult spellings compared with TO.

2.4 Letters redundant in some accents only

A very different kind of conflict between brevity and readability in CS arises from discrepancies in pronunciation between accents. One of the advantages of CS is that it does not usually favor a particular accent by implying one exclusive pronunciation for a word — most redundant letters are redundant in all accents. Thus no accent pronounces in *debt* or <e> in *apple*, nor does any accent require double consonants in *accommodate*. Likewise few problems arise in CS, as they do in many reform proposals, over how the vowels are pronounced (and hence how they should be spelt) in sets of words like *but, put, truth, suit, hue*, or in *blood, good, room, food, new*.

However there are a few patterns where a letter pronounced in one accent is silent in another. Should CS then encourage some speakers to cut letters out which other speakers would want to keep? In general alternative spellings must be undesirable, as they would undermine the world-wide unity of written English as a communication standard; and foreign learners would presumably then have to learn alternative spellings (as to some extent they do now).

One example of a pattern where perceptions of redundancy vary between accents is found in words like *secretary, monastery, raspberry, territory, armoury, jewellery*. Many British people find the spelling of the penultimate vowel-grapheme in such words unpredictable, since they either totally elide the vowel, or at least reduce it to schwa. For these speakers it would be very helpful if the letters concerned were cut, giving the CS forms *secretry, monastry, rasbry, teritry, armry* (cf. CS *armr*), *jewlry*; a model for this cut is perhaps seen in *wintry*, which has entirely supplanted the older alternative *wintery*. However Americans often give these vowels a clear value and might find the cut unreasonable, though paradoxically they already write *jewelry*.

A reverse Anglo-American example is that of the <-ile> words such as *fertile, hostile, missile, volatile*, whose final syllable Americans tend to reduce to syllabic <l>, so making homophones of *hostel: hostile, missal: missile*. The cut forms *fertl, hostl, missl, volatl* should therefore be appropriate for Americans, if not for the British. It is however worth noting that former spelling of *fossil* as *fossile*.

The <wh> words are similarly contentious. The distinction between <w> and <wh>, not much made in England, may be insisted upon by American and Scottish teachers. Should one therefore write *wat, wen, wich*, *wy* for the sake of those who do not distinguish the voiced/unvoiced value of <w, wh>, or should

one keep th <h> in those words to preserv a distinction that for many english is a major spelling-trap? (Th authr always hesitates between *weather:whether*, and much prefers *wethr* for both.) An argumnt for merjing both spelings as <w> is that al users wud benefit from th econmy and certnty of these forms, wich no mor need to be disfinguishd than do th voiced and unvoiced valus of <th>.

Alredy in TO ther ar ocasionl difrneces of speling between Britn and America wich reflect th absnce of a vowel-foneme in americh english that is presnt in british english:

british *aeroplane*, *aluminium*
americh *airplane*, *aluminum*.

If worldwide uniformity was not regardd as paramount, such speling distinctions cud provide a modl for difrnt CS forms

too: if th british now rite *aluminium* with one more <i> than th americns, they cud do th same with *fertile*.

Yet mor difcilt to resolv is th question of redundncy in th word *your*. Al speakrs agree that TO *your* shud not apear to rym with *our*; but ther is no agreemnt as to wethr th form *yor* or *yur* best reflects th pronunciation. In jenrl CS trys to cut <ou> wen it dos not represent th vowel in *out*, as shown by th foloing words:

TO *sour*, *source*, *scour*, *course*, *our*, *journey*
CS *sour*, *sorce*, *scour*, *corse*, *our*, *jurny*

For *your* CS curenly proposes th compromise wordsyn yr, alredy farnilir as an abbreviation.

These exampls concern variations between th domnt pronunciations of english, RP and jenrl americh. Not surprisngly, discrepncis can also arise between these major accents on th one hand and local accents used by only a few milion peple on th othr; such is th distinction made by som welsh speakrs between th last sylabl of *principal* and of *principle*, or th scots pronunciation of *plaid* as ryming with *made* rathr than with *bad*. No global speling systin can atemt to reflect al local variations, and CS here rites *principl*, *plad*; but it is not always obvius wher th line shud be drawn. Shud we for instnce, as Robert Craig and Edgar Gregersen hav haf — seriously sujetd, no longr rite th aspirated <h> because many english peple do not pronounce it (e.g *ouse* for *house*)? Such a cut wud doutless be stigmatised by 'educated' speakrs of th major accents, but systemicly it is no difrnt from dropping th <h> from th <wh> grafeme. Ultimatly it seems inevitbl that ther shud be a ranje of pronunciations of words that ar aproved as having to be representd by th speling, wile othr pronunciations fal outside orthografic bounds (a point acceptd, from a scotish point of vew, by David Stark).

Howevr, wile speling reforms that start by defining pronunciation constntly fal foul of this probim, CS dos so rathr rarely, th abov patrn being th most widespred.

2.5 Conclusion: CS brevity no obstacl

Pending furthr evidnce, wethr from sycolojicl experimnts or from major accents of english, ther wud seem to be no grounds for fearing that CS has been systemicly too drastic jenrly in its treatmnt of TO. One reasn for this optimism is that CS (unlike som forms of speedriting) sets out to respect that fundament principl of alfabetic script: that it shud spel out th ful fonemic structur of words, so giving gidance to riters as to speling, and to readrs as to pronunciation.

Readrs may howevr question wethr this principl is observd in a CS form like *opration*, wher th pronounced <e> is cut out from TO *operation*. Later sections of this articl and its sequel wil discuss

this pattern and others where cuts may indeed at first appear excessive.

3. ACTIVE TRANSFER EFFICIENCY

3.1 How needs to learn the cutting rules?

An important efficiency-criterion for CS, as for any reform that claims to be suitable for immediate implementation, is the simplicity of its rules for the learner. We may call this Active Transfer Efficiency: how easily the system can be learned by adults skilled in TO who wish to use the new system. Here we must understand that the number of people needing to learn the cutting rules would be very small. Schoolchildren would learn CS straightaway as the norm, and never need to cut TO: TO for them would just be a more complicated system still used by adults. The vast majority of adults would only need to read the new spellings, and would never be obliged to write them. The only people who would need to master the cutting rules as such would be the relatively few adults who for professional reasons had to learn to write the new system themselves; they would necessarily include teachers, and in due course perhaps journalists, typographers, secretaries, and some other categories. We might however anticipate that many other adults would find the simplicity and brevity of CS an incentive for learning it voluntarily.

3.2 Simple transfer from TO

For adult learners a key efficiency criterion would be the simplicity of the rules: the fact that just 3 main rules are sufficient for converting most English words from TO to CS. These rules are far simpler for instance than the rules for learning a full phonemic orthography, which requires 40+ graphemes to be learned for an agreed set of phonemes, as well as a standard pronunciation — for all of which a major reeducation exercise would be necessary. It is easy to see how much closer CS is to TO than a full phonemic orthography, if we compare a short text written in the two systems. The Simplified Spelling Society's *New Spelling* (NS), the full phonemic proposal published in 1948 [7], included the following sentence:

NS Again let us not forget how far from the great majority of those who learn to read and write. CS Again, let us not forget how far from the great majority of those that learn to read and write.

In NS, the spelling of 11/18 words has been changed, 2 of them shortened and 1 lengthened. In CS, a new spelling is needed in only 5 words, and is achieved in every case merely by omitting a letter from TO. In the phonemic system adult learners have consciously to create the spelling of each word, while in CS they only have to monitor and cut the familiar TO form.

3.3 Total mastery unnecessary for adults

Adults learning to apply the CS rules start by monitoring the letters in words as they write them, omitting those that are redundant. But especially if first attempts are checked and errors corrected, the system is quickly learned and confidence gained, indeed the relief at dispensing with many uncertainties of TO soon becomes a positive incentive to using the system. Before long the CS forms become automatic, indeed one user even abandoned CS because he was afraid he might be unable to return to TO. No doubt adult professionals like teachers who had to master CS would need training, but it would be less elaborate than the training teachers received for i.t.a. For one thing total mastery of CS would be unnecessary — only the words needed in the classroom would have to be practiced.

In general, an important practical advantage of CS over a comprehensive or phonemic reform is that even if not all redundant letters are omitted, words are still immediately recognizable. Thus if we compare TO *accommodate*, CS *acomodate* with the two possible intermediate forms *accomodate*, *acommodate*, we see that all four forms are equally readable. Here the motto "if in doubt, don't leave out" is a useful safeguard, in that it ensures that the spelling used will lie somewhere on the continuum between TO and CS, and will not be randomly mangled.

3.4 Are there any other redundant letters?

Are all redundant letters covered by the 3 rules? Broadly speaking they are, but a few patterns of redundancy

may not be entirely self-evident and so may require special learning — or even be too controversial to be, acceptable:

- the definite article is cut to *th*, partly for the sake of economy, but partly also to avoid the appearance of rhyming with words like *be*, *me*, *se*, *ke*.
- *you* is cut to just *u*, because the TO form has the appearance of rhyming with *thou*, while its sound is merely that of the first syllable of, say, *unit* (*u* also creates an international link, as it has the same meaning in Dutch).
- the TO forms of the trio *break*, *great*, *steak* are highly misleading, and by cutting out <a> CS at least produces the value of <e> found in such words as *alegro*, *elite*, and *brek* matches its fully phonographic counterpart in *breakfast*; these CS forms are offered as an improvement on TO, although they are still not perfect.
- similarly *broad* misleadingly resembles *road*, while the CS form *brod* indicates not quite the short value as in *rod*, but not too dissimilar value of <o> found in *or*, in *off* in some accents, and *ot* (the CS form of *ought*).
- in the same way, *group*, *soup* appear to contain the vowel of *south*, and by cutting them to *grup*, *sup* they acquire the value of <u> found in *gruel*, *super*; however, it may be objected of these forms that the value of *u* is too reminiscent of its value in *up*, and it might therefore be wiser not to cut *group*, *soup* at all.

The above forms are inevitably among the most controversial proposed by CS. Essentially the justification for forms like *u*, *brek*, *brod*, *grup* is that the TO digraphs <ou, ea, oa> are seriously misleading here, and although the CS vowel-letters may not represent the sound unambiguously or precisely, they are closer to it and so at least constitute an improvement over TO. It would however be easy for CS not to make these cuts, if there were a consensus against them.

3.5 Efficiency for beginners: consonant strings

It must also be asked whether any particular learning difficulties can be foreseen for children or foreigners in CS, which are not already present in TO. The advantages of CS over TO (economy, regularity) for the learner are evident, but some teachers fear problems with consonant-strings. Because CS cuts out more vowel- than consonant-letters, consonant strings tend to be longer and more frequent than in TO, and since children find consonant-strings difficult in TO, teachers wonder whether the problem might be aggravated in CS. TO contains some complex 5-letter consonant-strings, as in *eighths*, *strengths*, but they are fairly rare. In CS, on the other hand, strings occur quite regularly with up to 7 consonant-letters, as in *governments*, *circumstance*, *afterwards*, *compliments*. There are however several reasons for believing that, whatever trouble consonant-strings in general may cause, in CS they make the spelling easier rather than harder to handle:

- the new CS strings correspond to phoneme-strings (every letter in *compliments* is predictably pronounced) and so can be sounded out; but in TO the pronunciation is little guide to the spelling of the consonant-string in *eighths*.
- the cut vowel-letters in the CS consonant-strings do not reflect pronunciation, and are therefore often misspelled in TO; there is for instance no obvious reason for the different final vowel-letter in *adamant*, *government*; this problem disappears in CS *admnt*, *govrnmnt*.
- the long strings are made up of identifiable morphemes which can be taught. So *afterwards* consists of the familiar *after* followed by the common suffix *-wards*; and *governments* ends in the normal plural inflexion *-s*, preceded by the common suffix *-(m)nt*, which is attached to the root, the verb *to govern*, which teachers can pronounce readily to show that it does not rhyme with *oven*.
- as well as creating new consonant-strings, CS also reduces strings that cause particular trouble in TO, as when *caught*, *fetch*, *scene* become *caut*, *fech*, *sene*.
- there are significantly fewer letters in CS altogether, so that the overall learning load is reduced.

3.6 Conclusion: inherent simplicity

This section has tried to show that the CS rules are inherently simple to learn and to operate. However, there are cases where this criterion of Active Transfer Efficiency conflicts with other criteria, and where rather subtle discriminations have to be made than the 3 basic rules themselves cater for.

4 PASSIVE TRANSFER EFFICIENCY

4.1 Compatibility

Next to be considered is the criterion of compatibility between old and new orthographies. CS is based on the premiss that a Stage 1 reform that would radically change the appearance of written English is politically unrealistic and sociologically unwise. The old and new orthographies must be compatible with each other in both directions: adults must be able to read the new system easily (forwards compatibility), and children must be able to read the old system easily (backwards compatibility), without extensive re-education. This two-way compatibility between new and old, which we may call Passive Transfer Efficiency, means that words must remain easily recognisable. CS achieves this by its technique of mainly just omitting sociologically and phonographically redundant letters, whereas a reform that changes many letters, especially stressed vowels, is visually or disturbing and hence less compatible, as will now be shown.

4.2 Forwards compatibility

The sentence "*To the learner interested in the history of the language the old spelling would be easily accessible*" is now given in 3 reformed orthographies, 1 as quoted from the 1948 *New Spelling*, 2 in Simplified American Spelling, [8] and 3 in CS, together with statistics indicating the degree of change from TO:

- 1 *To the learner interested in the history of the language the old spelling would be easily accessible.*
15/80 changed letters, length = TO -5%
- 2 *To the learner interested in the history of the language the old spelling would be easily accessible.*
10/76 changed letters, length = TO -10%
- 3 *To the learner interested in the history of the language the old spelling would be easily accessible.*
1 changed letter out of 68, length = TO -20%

First reactions to the three different spellings will be impressionistic, but almost certainly the reader will have found the first version hardest to read, the second version easier, and the CS version easiest. The <j> in *language* being the only unfamiliar letter. The implication is clearly that the more changed letters an orthography contains, the harder it is to read unprepared. CS indeed positively lends itself to immediate fluent reading: the essentials of the TO gestalt of most words are preserved, and the faster one reads, the less one notices that letters are missing. The efficiency observed here, then, is a matter of how fluently the un instructed reader scans text in the reformed orthography. But although this forwards compatibility is a great strength of CS, it may sometimes conflict with the first efficiency criterion, that of Active Transfer Efficiency for adults, in other words with the regularity of the 3 cutting rules.

4.3 Degrees of forwards compatibility in CS

Occasionally the regular application of the 3 CS rules results in considerable disturbance to the familiar appearance of words in TO. The following groups of words show a progressively increasing degree, of visual disturbance, from the very slight to the seriously disruptive. In the first group, the cut is not very conspicuous:

unconstitution
receipt (cf *deceit* — also etymological efficiency)
leave, sleeve, receive, believe (cf *eve, but receipt, belief*)

In the next group of words the cut is visually more disturbing because the initial letter (i.e. the most prominent letter) is dropped from the TO form:

nat, neel, nemonic, syche, rong

As well as undergoing a 50% cut and losing both its first and last letters, the following spelling introduces an additional element of disturbance by merging the homophones *know*, *no*:

know → CS *no*

Perhaps the most severely cut words of all (if the normal CS rules are mechanically applied) are the following, the first indeed losing 66% of its letters:

eye → *y*, *eyesight* → CS *ysyt*

honour → CS *onr*, *honourable* → CS *onrbl*.

The absence of a letter from the middle of a word of medium length or longer may not even be noticed in fluent reading (any more than we notice many misprints), because most of the time we read what we expect to read. The conflict of criteria we observe in the more disturbing of the above examples is between compatibility with TO, which is rather low, and regularity both of the cutting-rules and of sound-symbol correspondence, which is high; and we have to ask which criterion should have priority. Should we say that for instance the word *y* should keep its first phonographically redundant <e>, and *onr* keep its redundant initial <h> (*ey*, *honrbl*, in order to remain easily recognisable, or should *eye* be spelled regularly, as *my* without the <m>, and *honour* like *on* with a syllabographic <r> added? Spelling reformers may prefer regularity in these circumstances, but the public, which must be persuaded to accept the forms, is likely to attach higher priority to familiarity, in other words to forwards compatibility.

4.4 Repeated consonants

At first sight disturbing in CS are the repeated consonants with repeated pronunciation, as in *probbbl*, *needd*, *maximm*, *linn*, *terr*. This phonographic device does not occur at all in TO, and is therefore a complete novelty for the reader encountering it for the first time. Such repeated consonants must be clearly distinguished from the doubled consonant letters that are such a common but irregular and troublesome feature of TO; but they do have some affinity with the repeated <c> with different pronunciations in words like *accent*, *success*.

The visual disturbance of repeated consonants in CS is a direct consequence of the regularity of the system. The spelling of the last syllable of words like *hooligan*, *beaten*, *cotton*, *important*, *different* is regularised by reduction to syllabographic <n> (*hoolign*, *beatn*, *cotn*, *importnt*, *difrnt*). Regularity then requires the same reduction even if, as in *linen*, *cannon* etc, the preceding letter is also <n>: *linn*, *cann*. The dilemma we face is whether to complicate the cutting rules and introduce systemic irregularities by making exceptions in these cases for the short-term benefit of readers transferring from TO, or whether the visual disturbance for these readers is a price worth paying for the long-term regularity of the system. Readers do after all soon become accustomed to new forms.

Two additional peculiarities should be mentioned in this context. The first arises if, as appears necessary, final <ss> is not simplified in CS, as in words like *class*, *miss*. In that case, forming inflexions by the addition of just <s>, as is the normal CS pattern, rather than with <es> as in TO (*classes*, *misses*), results in endings with 3 consecutive <s>s: *classs*, *misss*. Like the other repeated consonants, this pattern is not in itself a problem, and the reader soon becomes accustomed to it; but at first sight it undoubtedly appears strange. More awkward on transfer from TO is the past tense inflexion of the verb *to add*, which by the regular CS rule becomes *add* (cf. *needd*). If this word is taken out of context, ambiguity does appear to constitute a real problem of both forwards and backwards compatibility between TO and CS. However, the context usually makes the meaning clear, as in the sentence: *to form the past tense, in CS, the letter <d> is simply add to the root*, but a sentence like *we add <d> to the root* might at first be misunderstood as the present rather than the past tense.

4.5 Backwards compatibility

Now let us consider backwards compatibility. How easy would it be for children who had learnt CS to read

TO? They wud aftr al need to be able to do so for many years, since ther parents wud mostly stil use it, as wud al erlir printd material. We can esily juj forwrds compatability just by considring how hard we ourselvs find it to read text in th new speling; but asesing bakwrds compatability is mor dificit, as we hav to imajn ourseivs having lern to read and rite in a mor fonografic orthografy than TO, and then looking at TO with difrnt ys from our own.

John Downing pointd to th kind of problm that can arise, wen he described [9] how on transfer from i.t.a. children tend to misread TO *shoe* as *show*, since *show* is spelt <shoe> in i.t.a. TO *one* can also be such a trap if its speling is reformd to represent its pronounciation: if th lernr is familir with 'majic' <e> aftr a consontt as a way of indicating a preceding long vowl (as in *bone*), th form <one> must apear to be pronounced as *own* (just as in TO beginrs ofn pronounce the word *once* as tho it wer spelt *onki*). Anotr problm wud arise with miniml pairs if childrn wer taut <s> for th unvoiced siblnt and <z> for th <s> inflexion in TO: a child ho lerns *hence* with th speling *hens* is bound to be confused on encountring TO <hens>. Similrly th TO forms *come*, *comb*, *comma*, *coma* contain th seeds of multipl confusion if a reformd orthografy atemptd to spel them fonemicly. Even CS wud merj *coma*, *comma* if Rule 2 for simplifying dubld consnnts wer aplyd rijidly (it is here asumed that in such cases th dubld consontt has to be kept, and in jenrl that CS shud not cut letrs if hetrofones wud result). Th abov exampls sho th difictis of bakwrds compatability that wud arise particulrly from a speling reform that actuly chanjed th letrs in words.

4.6 Bakwrds compatability of CS

By not changing many letrs, CS larjly avoids this problm. One way to visulise how TO myt apear to those ho had been taut CS is to look at elizabethan speling, wich difrs from TO much as TO difrs from CS: mainly by extra letrs. Th foloing sentnce has been selectd from th 1588 *Bishops Bible* for its particulrly markd deviation from TO, with th TO and CS versions aftr it for comparisn:

BB Beholde the fowles of the ayre: for they sowe not, neyther doo they reape, nor carrie into barnes. (77 letrs),

TO Behold the fowls of the air: for they sow not, neither do they reap, nor carry into barns. (69 letrs)

CS Behold th fowls of th air: for they so not, neithr do they reap, nor cary into barns. (64 letrs)

Th 1588 version is not difict to read today, and it contains a similr proportion (about 11%) of letrs that ar cut in TO as TO jenrly contains letrs that ar cut in CS. From this comparisn we can convincingly imajn how TO wud apear to a readr educated in CS: not hard to undrstand, but arcaicly grotesq in th irrationality of its forms.

A slyt dificly myt be th gretr variety of letrs CS cuts from TO, including special hazrds like <gh>; but it is probbly no mor serius than our momentry puzlmtnt wen confrontd with th Elizabethan habit of using <i, j> and <u, v> intrchanjebly in forms like *ivdge*, *lesvs* for *judge*, *Jesus*. Th foloing sentnce has been composed to exajrate th dificly that cud arise if a TO text containd an exeptionl density of unproductbl extra letrs:

CS: Tho thot tuf, english speling ot to be taut ryt enuf. (41 letrs = TO -30%)

TO: Though thought tough, English spelling ought to be taught right enough. (59 letrs = CS + 44%)

This exampl incidently demnstrates poor compatability both bakwrds and forwrds. Th economy of th CS version is striking, but it is particulrly th many non-fonolojicly motivated extra letrs in th TO version wich reduce bakwrds compatability (i.e. make reading hardr for CS-educated readrs). Obviusly, howevr, such an absurdly artificial exampl dos not imply that CS-educated readrs wud normly hav dificly in decoding TO in a real reading situation; and presumably in th erly years of reform they wud be warnd of th <gh> anomly in TO, altho they wud not hav to lern it.

4.7 Conclusion

We have here examined conflicts between Active Transfer Efficiency (mechanically applying the 3 cutting rules) and Passive Transfer Efficiency (backward and forward compatibility, making CS as easy as possible for adults, and TO as easy as possible for children). We have found that there is a dilemma: if we try to minimise differences in appearance between TO and CS, we need exceptions to the main cutting rules of CS; but if we want to make CS as simple, regular, phonographic and predictable as possible, then we should give priority to the 3 main CS rules, however strange the resulting spelling may look. We would then have a better spelling-system for future generations — but probably at the expense of immediate public acceptability.

ENDING PART 1, INTRODUCING PART 2

Part 1 of Conflicting Efficiency Criteria in CS ends by stating the dilemma that now arises for the further development and promotion of CS. In fact it is a dilemma which faces all spelling reform schemes: whether to give priority to a system that is linguistically and psychologically sound in itself, or to make concessions at the outset to expected public dislike of the weird-looking forms proposed. This paper has attempted to catalogue some of the detailed choices that will have to be made, along with the considerations that need to be born in mind in making those choices. The second part of the study, to appear in issue 1989/1 of the *Journl*, will then deal with further important choices that the CS system presents; the most important have to do with the distinction between short and long vowels and with the hierarchy of ambiguity in TO and CS (homophones, homographs, etc).

Meanwhile, readers are urged to consider the points already made, and send in their observations.

REFERENCES FROM PART I

JSSS Journal of the Simplified Spelling Society,

SSSN Simplified Spelling Society Newsletter

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- [9] Downing, J 'The Transfer of Skill in Language Functions', in [JSSS, 1987/2](#), Item 4, §4.8

[See Part 2 in [Journal 10](#) Item 7]

7. Submission to the National Curriculum English Working Group from the Simplified Spelling Society July 1988

Chris Upward

1. This submission.

In May 1987 the Simplified Spelling Society submitted a paper on English spelling to the Committee of Inquiry into the Teaching of English Language, and followed it with some comments on the Committee's Report early in June 1988. Now that these comments have been passed on for consideration by the English Working Group, the Society feels that they require to be further developed if they are to be positively useful. Essentially, our comments on the Kingman Report pointed out that it offered an inadequate view of English spelling; but we did not then back up our criticisms with any constructive suggestions. This we now think it incumbent on us to do.

This submission has been compiled by the Editor of the Society's *Journal*, in consultation with its Chairman and other committee members...

2. The Kingman Report on learning to spell English.

Despite our criticisms of the Report, we are in full agreement with the basic approach to the learning of spelling it puts forward. This approach is founded upon a correct understanding of the way in which alphabetic writing systems operate, and it is epitomised in the following phrases from the Report:

- p.7 "the alphabet, how it relates to the pronunciation of consonants and vowels"
"the spelling-patterns of English
and how much regularity there is in English spelling"
"the way in which regular plurals and past tenses
are formed in Standard English"
"regular patterns of spelling"
- p.52 "the relationships between sounds and spelling patterns"
- p.53 "all languages are rule-governed systems"
- p.54 "spell correctly"
"understand main correspondences between letters and speech-sounds"
"understand that spelling obeys rules"

The experience of many other languages and of the Initial Teaching Alphabet and similar regular spelling systems for English shows that when spelling is taught by these principles, literacy skills are acquired quickly, reliably and with high motivation. It should be the aim for standard English spelling to be taught by methods which embody these principles too.

3. The irregularity of English spelling.

However, as our comments on the Report made clear, whatever rules and regularities the English spelling system may contain, it is the irregularities that are its most significant feature. In fact the Report's own examples of spelling patterns illustrate this very point most appositely, in that they are mutually contradictory and conflict with the "main correspondences between letters and speech-sounds". Besides recommending principles for teaching spelling, the Report should have

considered why it has always proved impossible to apply them effectively to English spelling as we now know it. (The endless sterile debate between the advocates of phonic versus whole-word teaching methods is merely another facet of the same problem.) The present system of spelling is a major obstacle to the acquisition of literacy-skills in English worldwide, and any practical policy for improving proficiency in written English must address this problem.

4. Spelling rules: the example of <-ed>.

Although the Report lists several spelling patterns and repeatedly refers to rules, it does not actually give any examples of rules. It must be understood that not only are the present patterns of English spelling contradictory (which means that learners cannot be sure which pattern to follow), but its present rules are not suitable for teaching. We will now demonstrate this in respect of one of the Report's own recommendations, namely that pupils should understand "the way regular ... past-tenses are formed in Standard English." The following is a quotation from the Oxford University Press's *Hart's Rules*, which is perhaps the most authoritative source for the writing conventions of British English, and it deals with one aspect of "regular" past-tense formation, namely the doubling of consonants:

Words of one syllable

Those ending with one consonant preceded by one vowel (not counting the *u* in *qu*) double that consonant on adding *-ed* unless it is *h*, *w*, *x* or *y*. [1] Monosyllabic words not ending with one consonant preceded by one vowel generally do not double the final consonant.

[1] But note *bused* (in the sense 'transported by bus').

Words of more than one syllable

Those that end with one consonant preceded by one vowel double the consonant on adding *-ed*, if the last syllable is stressed (but not if the last consonant is *w*, *x*, or *y*). But words of this class not stressed on the last syllable *do not double the last consonant* on adding *-ed*, unless the consonant is *l*.

In words ending in *l* the last consonant [2] is generally doubled whether stressed on the last syllable or not. Exceptions: *appealed*, *paralleled*, *travailed*.

[2] Exceptions are *worshipped* and words ending in *l*.

There are a several important observations to be made about this rule:

1. It deals with only one aspect of regular past-tense formation in written English; there are further complications, for instance when the base-form of verbs ends in <e> or <y>.
2. Much (but not all) of this rule applies also to the addition of some other suffixes — but not of all suffixes.
3. Little that children can be taught about the alphabet and sound-symbol correspondences will help them in mastering this rule, whose quite unnecessary complexity should have no place in modern education or in a modern writing system. In fact nearly all regular past tenses in English can be far better represented in writing if simple morphophonemic rules or rules of sound-symbol correspondence are applied, indeed the addition of <-d> to the base form of the verb could in practice be sufficient in nearly all cases. But such regularity cannot be achieved without some simplification of the spellings themselves.

4. Hardly any users have a confident mastery of this rule as it stands. *Hart's Rules* is itself guilty of inconsistency in describing *appealed*, *travailed* as exceptions — they are almost certainly not (or if they are exceptions, then other words like *revealed*, *prevailed* are so too), though the wording of the rule is unclear on this point. Similarly the Kingman Report fails to observe the rule in its use of the *form focussing*: by and large <-ing> endings follow the same rule as <-ed> endings, and *focusing* would therefore seem to be the required form.

5. 'American' spelling uses a slightly simplified version of the rule that also accords rather better with sound-symbol correspondence. Whereas according to the rule as stated above *travelled*, *compelled* have the appearance of rhyming, the American forms *traveled*, *compelled* reflect the different pronunciations.

5. English spelling: an evaluation.

Enough has been said, we believe, to show why trying to teach the present spelling rules in schools has always been such a stultifying and frustrating task. We must next ask why English has these rules and whether they are necessary. Sometimes the reason for them is that scholars in past centuries believed that the etymology of words required a particular spelling (these scholars were not infrequently misinformed about the derivation of words, however); and sometimes the rules are systemically interconnected, so the one arbitrary rule is required to prevent confusion with another; but however they may be explained, the present rules do not constitute a global, rational scheme for the written representation of English. (As the Kingman Report implies, such a scheme can only be based on the basic alphabetic principle of consistent sound-symbol correspondence.) More than anything else the present rules are the haphazard product of an unplanned consensus of printers which emerged in the 17th century and which in many cases preferred an esoteric, irregular form to a previously existing simple, regular one (as when *debt* was preferred to *det* or *ache* to *ake*).

In practice the resulting spellings naturally have an extremely harmful effect on education wherever the English language is taught, and widespread functional illiteracy is the inevitable consequence. Not merely that, but all learners waste incalculable time and effort in attempting to master English spelling, their success is in the vast majority of cases less than it should be, and educational motivation suffers severely. The adverse effects are of course not confined to 'English' as a school subject, but hinder efficient performance in almost all school subjects. In science they obstruct pupils' grasp of specialist terminology; and in foreign languages two-way confusion occurs when pupils encounter randomly different (but often more rational) spellings for the 'same' words in foreign languages: compare English *abbreviation*, French *abréviation*; English *independent*, French *indépendent*; English *accommodation*, Spanish *acomodación*; English *build*, German *bilden*; English *when*, German *wenn*. Nor are the adverse effects limited to education: the whole process of producing text in English, a key economic and social activity, is a far more cumbersome, erratic, time-consuming and hence expensive task than it need be.

6. A concept for improvement.

The Kingman Report stressed that pupils should learn how language changes in the course of time. While changes in pronunciation and grammar of language occur spontaneously and are scarcely susceptible to social decision, the writing of languages changes by deliberate, planned intervention. However, unlike almost all other languages, English has neglected to modernise its written forms to any significant degree for some 300 years; the biggest change in that period has

been the replacement of <1> by <s> nearly 200 years ago (on the initiative of publishers) while almost all other changes, such as *shew* becoming *show*, have only affected isolated words.

The Simplified Spelling Society has developed a fund of ideas on planned spelling change which are ripe for public discussion. The Society does not believe there can be anything like a panacea for the whole problem, and it is conscious of severe practical constraints on the steps that can be taken. Nevertheless, it does appear that within these constraints very substantial improvements can quite straightforwardly be made to the written form of English, to the immediate benefit of British education and the longer-term benefit of alphabetic communication in English worldwide.

The basic concept is very simple. As time passes, the ideas, information and systems taught to children in schools have to be updated to keep pace with the developing state of knowledge and the needs of society. We no longer oblige children to calculate in many of the old imperial weights and measures, nor in the pre-decimal currency (certainly not in rods, roods, poles, perches, chains, furlongs, nor in farthings, shillings and guineas, and scarcely in pints, quarts, gallons, or inches, feet, yards, or ounces, pounds, stones, tons); the educational, practical and economic benefits of teaching children to operate in the rational, predictable metric and decimal systems are self-evidently enormous. Our writing system is just another system of notation like these, only inherently far more complex, and because it has been allowed to become so antiquated, it is also far more difficult to master and use. Our present understanding of the English language, writing systems in general, and the psychology of literacy-skills, has advanced centuries beyond the time when the Present English spelling system took shape. We do not teach children human biology in terms of the four humours, or chemistry in terms of the philosopher's stone; but we still teach English spelling in terms no less antiquated. It is a matter of educational responsibility and priority to stop teaching ancient rules and patterns which have no logical or linguistic justification, and which we know work to the psychological and educational detriment of our children.

7. A range of options.

This paper is not the place to present detailed proposals, but at least some concrete possibilities must be outlined to show the kind of spelling improvements that can be considered. Underlying them all are the principles recommended in the Kingman Report, namely that English spelling should be taught (as it cannot effectively be today) by means of manageable rules, regularities, patterns and sound-symbol correspondences. Our proposed options are not intended as rigid categories with a fixed content to each, but are merely suggestive of some general approaches. They are listed roughly in order of disturbance to the familiar system and of benefit to be expected, i.e. the first option is the least disturbing and the least beneficial, and the last option is the most disturbing and yet (so some would argue) the most beneficial. It will be apparent that the options listed overlap at many points.

1. *Adopt most American spellings.* Where these differ from the present British forms, they are mostly more regular, more economical, and reflect sound-symbol correspondences better. One example: children should no longer be taught to write words like *favour* as though they rhymed with *devour*, but in the American style as *favor*, so that they parallel words like *terror* (which in 1755 Dr Johnson still wrote as *terrou*). Such a reform would also overcome a major present inconvenience in world English, which requires different spellings to be learnt according to geography.

2. *Simplify the most common irregular spellings.* Beginners are particularly confused by the aberrant spelling of many very common words. Thus *are* is spelt as though it rhymes with *bare* and

not with *bar*, *were* is spelt as though it rhymes with *here* rather than with *her*, and *have* is spelt as though it rhymes with *cave* rather than with *lav*. The spelling of about 60 of the 200 most common words in the language could easily be simplified, along the lines of *ar*, *wer*, *hav*, to parallel regularly spelt words containing the same sounds.

3. *Regularise the spelling patterns that cause most difficulty.* A study of spelling mistakes shows that a very large number of errors are caused by letters that are redundant in terms of sound-symbol correspondence (in fact more than 10% of all letters used). These letters fall into three main categories: 1) many are silent letters like the <s> in *island*; 2) many are vowel letters with final <l, m, n, r>, as in *principle*, *principal*, *petrel*, *petrol*; *madam*, *tandem*, *random*, *carborundum*; *rotten*, *cotton*, *assistant*, *consistent*; *centre*, *enter*, *doctor*, *harbour*, *murmur*, *injure*, *martyr*; 3) many are doubled consonants, as in *accommodate*. Removing these redundant letters does not greatly alter the appearance of words, but it improves the regularity, sound-symbol correspondence, speed of writing and general economy of the system. This approach can incidentally also reduce the present complex rule for past-tense formation to one of the utmost simplicity.

4. *Regularise the spelling of selected sounds.* Although the spelling of vowels in English is generally much more problematic than that of consonants, changing their letters is often difficult: firstly because there may be no agreement as to the sound that should be represented (thus there is no agreement as to whether *your* is a homophone of *ewer* or of *yore*); and secondly because changing vowel-letters often changes the appearance of words quite radically, even making them unrecognisable (if children were taught *wunce*, for example, they would be unable to read *once*). A few of the most troublesome consonant spellings on the other hand can be regularised with much less difficulty: for instance, the sound of <f> could regularly be written <f> instead of <gh, ph> (*cof*, *tuf*, *fotograf*); the sound of <j> could regularly be written <j> instead of <g, dg, dj> (*jem*, *brij*, *ajust*); the sound of <k> could regularly be written <k> instead of <c, ch, ck, cq, q, qu> (*kat*, *kemist*, *lok*, *akuire*, *kuestion*, *rnoskito*).

These four options are listed merely to illustrate some possibilities; selections and combinations from amongst them will suggest further alternatives; and of course radically different spelling changes are also conceivable, though in our view far less easy to implement.

8. Psychological, practical and political factors.

To the public at large the suggestion of any kind of spelling reform will appear a novel and daring suggestion, though to judge from a preliminary survey by the Society's Chairman (... published ... in the 1988/2 issue of the Society's *Journal* it would be well received by many people.

Nevertheless, a spelling reform would need to be accompanied by various reassurances, for instance that

- few literate adults would have to learn new ways of writing
- reading the new spellings would present no difficulty
- the reform would not suddenly make all past English literature inaccessible. The advantages for future generations, for all professional producers of script, for the publishing industry, and not least for the functionally illiterate and semi-literate would also have to be stressed. Some teachers would undoubtedly be sceptical at first, but the enthusiasm generated by the Initial Teaching Alphabet among teachers who have used it shows that the promise of easier and more effective teaching can be a great attraction.

The reform would need to be designed so that adult users (above all, teachers and certain text-producers) could be cheaply, quickly and effectively trained in its use. It would be important to ensure compatibility between the old and new spellings, so that no problems arose from their concurrent use. The international dimension would also have to be taken into account: under no circumstances could Britain embark on spelling changes that would not be self-evidently beneficial to the rest of the world too, so providing an incentive for international adoption of the reform.

The political dimension is probably the most sensitive. Normally, spelling reforms have the official support of ministries of education, but when this has been called for in Britain in the past (e.g. 1923, 1933, 1953), it has not been forthcoming. (And perhaps wisely so, as the kind of spelling reform proposed earlier this century for English now appears unrealistically radical and lacking in a practical sense of how it would be implemented.) Since then the experience of the Initial Teaching Alphabet has shown that government support is not necessarily a prerequisite for spelling developments; furthermore the pedagogic success of the i.t.a., the substantial research it gave rise to, and the lessons of its recent decline all provide a much sounder foundation for future reform proposals.

The situation today is in many pertinent respects very different from that of the first half of this century. English is a world language, the level of relevant linguistic and psychological understanding is of an altogether higher order, literacy in English is more important than ever before, and educational demands are constantly rising. Furthermore criteria of economic efficiency today have new pre-eminence, value for money is as important in education as in business, the present spelling system of English is demonstrably wasteful of human and non-human resources, and the present British government has shown itself capable of radical initiatives embodying these criteria in education as elsewhere.

The time for reform is perhaps riper today than it has ever been in this country. The opportunity should be pursued.

9. A recommendation.

We urge the English Working Group for the National Curriculum seriously to consider the ideas contained in this submission and in the Simplified Spelling Society's two previous submissions. The plan for a National Curriculum is giving a positive and original thrust to education policy in this country and offers a rare opportunity for radical ideas to be considered. While we fully realise that in the time allowed for the Working Group to report it cannot do justice to such far-reaching proposals as we are making, we nevertheless hope that their importance will be recognised, and a recommendation made for them to be further explored in a more substantial manner than we as a Society can attempt solely from our own resources. (We note, incidentally, the recommendation in the Kingman Report Ep.66, §151 that a National Language Project be set up; perhaps our ideas might be suitable for consideration in this context.)

The Working Group has a historic opportunity to help written English to take a step, however small, towards its centuries-overdue modernisation, and we hope it will at least show a positive interest in the possibility. We very much look forward to receiving its response, and would be glad to provide further information in writing or attend in person for discussion of the Society's ideas.

[*Journal of the Simplified Spelling Society*, 9, 1988/3 pp27–29 in the printed version]

[Doug Everingham: see [Bulletins](#), [Journals](#), [Newsletters](#)]

8. The Case for SR1 and Nothing Else.

Doug. N. Everingham.

Dr Everingham writes that he at one time favored Reg Deans's BRITIC (see *Journal of the SSS* 1987/2, pp.25–27) as the most economic use of the Latin alphabet for English, but wanted some changes. After seeing W Gassner's proposal, Doug put out a more complete scheme, *Braud English Spelling* (1966), to provide 66 spellings for 40 English phonemes so as to allow preservation of existing spelling-distinctions among homophones. This was acclaimed by Frank Laubach of the Laubach Institute, USA, who had devised a similar system with the added aim of preserving word length for greater sight-familiarity by doubling consonants etc where possible. In 1967 Doug entered the Australian federal parliament. On seeing Lindgren's *Spelling Reform: A New Approach* (Sydney: Alpha Books, 1969), he accepted it as incomparably better and abandoned his own proposal. He suggested to Lindgren (a resident of the federal capital, Canberra) that a 'Spelling Action Society' be formed on September 1, 1971, 'SRI Day'. As Australian Minister for Health 1972–75, Doug produced the first official publication to use Lindgren's SRI (Spelling Reform Step One), including the form *helth*. He tried without success to set up a parliamentary committee on spelling reform. He currently edits 'Spelling Action', quarterly newsletter of the Spelling Action Society.

Following this article, Chris Upward discusses the points numbered [#]

Attacking outrageous 'gargoyles' of spelling like *hiccough lough ought plough thorough though through tough trough* (see Bill Herbert, *Journal* 1987 No.1, p. 3) appeals in part because such reform has had partial success with *hiccup loch plow thoro tho thru*. The last four words were reformed chiefly by the example of the *Chicago Tribune* which has now largely abandoned the effort. But <-ough> words occur on average less often in print than words eligible for Lindgren's Spelling Reform Step One (SRI): the use of <e> for the clear short vowel sound of *trend ses gests sed hemorrhaging leopard beried meny ded hefers*. [1]

Apart from the *Tribune's* group of four, these <-ough> reforms came about from causes as little connected with each other as the reforms of *eschallotte gaol manoeuvre racquet shew sulphur to shallot jail maneuver racket show sulfur*.

Also, such isolated attacks on gargoyles, however successful, distract attention from, and may delay, the more positive aim of spelling reform: to follow *consistent rules* for encoding distinct *sound* elements (phonemes) of a language, irrespective of

- differing sounds (phones) given to any of those elements in different dialectal divisions of the language community [2] and
- different spelling customs based on earlier sounds, root words as spelt in other languages, or the whims of dictionary makers and printers. [3]

The above 'successful' reforms do not achieve this consistency for any of the phonemes re-written <u, p, ch, ow, o, o, u> respectively from <-ough> or re-written <sh, t, j, ai, eu, er, ck, ow, f> from <esch, tte, g, ao, oe of of of u, re, cqu, ew, ph>. The reforms affect only a single word and its derivatives in each case. Thousands of one-word reforms of this type (some of them re-reforming earlier such reforms) would be needed to bring consistency to English spellings.

Part 1 of Chris Upward's 'Cut Spelling — a Linguistic Universl?' ([Journal of the SSS, 1987/2](#), Item 8) contains some 500 words with nearly 600 phoneme-coding irregularities (if <th> for /dh/ sound is deemed irregular). CS removes some 180+ redundant letters, occurring more than once in some words, so in about one word in three of print. A few more irregularities of traditional spelling are removed using <j, f, y> for <g, ph, gh, ig> which is now declared part of the CS 'system' along with

deletion exception rules like

- keep post-accentual schwa spelling after palatalized <c, s, t, x> (eg: <special, nation>) and in <-ual>
- keep letters to avoid forming heterophones. (This rule increases inconsistencies [4], defeating the object of the exercise: to produce uniformity and reliability of sound-encoding rules for beginners. If spelling is finally to be regularized these exceptions will have to be reversed.)
- keep intervocalic <-rr->, final <-ss, -se>. [No mention of <-sm, -sse>; this rule might be simplified to 'don't put <s> for the /s/ sound where it might be read as /z/', because that is the point of this exception. Lindgren's approach avoids such exceptions by care in the choice of the order of SRs, eg the spelling of /z/ would be corrected long before that of /s/.]

By contrast, each of Lindgren's proposed forty or so spelling reform steps (SR1, SR2, ... SR40) should achieve total consistency for one of the forty phonemes of English for every word. Forty such steps would totally regularize English spelling. Attacking gargoyles first achieves regularity for no phoneme and requires rules with exceptions. SR1 amends only two gargoyles in the passage referred to (producing <insted, meny> and in general affects only one per 80 words of print as Ivor F has shown in his million-word count. (See 'Spelling Action', Jul-Sep 1986, page 4.) This unobtrusive change, so easy for high pressure professional writers to adopt, is resisted by Chris in his article. He writes <insted> (CS) but <many>!

Yet SR1

- is adopted as one of the 'systems' of SSS
- has no exceptions for recording one phoneme everywhere [5], and
- is compatible with CS.

If SR1 is widely recognized it will have established the positive principle of the rule of phonemic logic, not the negative principle of piecemeal patchup of past botchups. This SR1 principle will be worth more than all the complicated rules of Cut Spelling, rules which, if supplemented eventually by similar rules to regularize the rest of traditional spelling, will, including their multiple exceptions and provisos, far exceed the number of SR steps (40) required on the Lindgren principle to transform spelling from a word fossil field and museum to a reasoned written code for speech. [6]

Lindgren's book has a cartoon showing two mountaineers arguing and pointing at distant mountains. One says: "You want us to climb the left peak and I the right. Let's go towards them while we argue about it." Every spelling reform movement wants total regularity eventually. Every one of them has a preferred first step, although SAS seems to be the only one that has never varied it. Every one of them agrees on SR1 as part of their aim. Yet they do not use it while debating much more complex proposals which have never been used throughout journals and literary works as SR1 has been repeatedly!

SR1 is one of the few possible phonemic reforms that does not significantly mislead readers using otherwise current spellings. It does not require exceptions. It does not close off options for further phonemic reforms. It sets an example which could lead to restoring to traditional English spelling some of the interlingual compatibility it had before the great vowel shifts, such as <ei au ai ou> as in <veil sauerkraut aisle soul>, by

- first making saner the spelling of the phoneme too often less aptly shown by each digraph
- choosing the digraphs in the right order with a few years' interval between steps in the SR1, SR2 ... series.

Thus /i:/ as in <kiwi> will be reformed before <ei>, which in turn will have its international function promoted before <ai> does; /o:/ as in <awe, oar, all> before <au> which will precede <ou> reform.

Those who would reform <gh, ph> spellings of /f/ ignore the exceptions of

- <gh> silent or sounded as in <l of ough, hiccough>

- <ph> in <sapphire> <pph>=/f/ and <nephew> (<ph=/v/)
- <ff> in <off, raffle> which argue for reform of the spelling of /v/ and the <i> of <rifle> before reforms of non- <f> spellings for /f/-, and reform of the <a> in <navy> before halving <vv> in <navvy, revving>, to avoid further exceptions concerning doubling of consonants etc.

Lindgren has made all of the above clear in his book for those prepared to define and seek its logical aim. This should be preferred to a quick but patchy fix (which will lead to further patches over patches) chosen to give an easy ride to gargoyle-based reform for those hooked on traditional spellings.

The table below shows the absurdity of the common <gh, ph> reform proposals compared with the order and logic of SRI and its sequels: the logic of starting from a phoneme in the top row and going down the column, and the craziness of starting with a gargoyle in the left column and going across the row.

Articles by Chris and others in past issues of the Newsletter have shown incomplete adherence to SR1 at times, among more sweeping reforms. This suggests that reform of the ing more than one word in 80 or so for a start is likely to lead to poor consistency for professional writers who work regularly to tight deadlines. [7] They and the public have to be convinced before the momentum of change can begin towards eventual spelling sanity. If we cannot persuade pedagogues, publishers, politicians and the populace that the logic and simplicity of SR1 is worth putting into practice, our philosophical meanderings and debates among the converted will be worse than useless — they will convince the uncommitted that we are confused or the problem is too hard, and so will delay our success. If we want action, not words, we must choose to promote one reform on which all reform groups can agree. So far that is ONLY SR1. [8]
(See *phoneme chart below*)

Chris Upward comments on points numbrd abov:

[1] or all Err-analysis shos th <gh> 'gargoyl' is a real bugbear, and it is very comn. Th 250 most comn english words, in desending ordr of frequency, include *any, many, might, through, again, though, thought, right, against, head, enough, high, night*. Chanjing letters causes problms (e.g. bakwrds compability, pronunciation), and if *eny, agen* etc ar excluded, <gh> seems to hav a strongr claim than SRI.

[2] Conflicting pronunciations ar a serius obstacl to reform by fonemes. SR1s letr-chanjing trips over these: americns and scots rym ate with *late*, not with *bet*; in Ireland *any* has th sound of *Annie*; many english speakrs rym *says* with *pays*; if americns oftn rym *bury* with *furry*, not *very*; *again, against* ar oftn spoken with th vowl of *gain* and th SR1 forms *agen, agenst* confusingly sujet soft <g> as in *agent*.

[3] . We shud not despise th spelings of othr languajs. A major purpose of speling reform is to help forenrs lern english. Cut Speling removes discrepncis between languajs, as in *abbreviation (french abrévation), wen (j ermn wenn.)*.

[4] Hetrofones must be avoidd! CS needs few exeptions.

[5] Not only conflicting accents prevent consistnt speling by fonemes. As David Brazil showd (SSS *Jurnl* 87/1), our pronunciation varis as we speak, and linguists even disagree about how many fonemes ther ar in english, som even douting wethr they realy exist. Speling is not only a systm for recording sound, it represents morfemic structur too, wich is anothr reasn wy ses is a dubious speling for *says*.

[6] Certnly th 3 rules of CS ar mor complex than th 1 rule for SR1, but wheras SR1 only improves ritn english marjnlly, CS targets th most serius practice difictlis of th systm: silent letrs, post-accentul shwa, dubld consnnts; and it streamlines th hole riting process. SR1 has th advantaj that it is simper to describe, but CS acheves mor. Our overiding comn aim must be to get any

improvement, large or small, simple or complex, accepted. The public needs educating about the range of possibilities, with all their pros and cons, and not about one scheme "and nothing else".

[7] CS requires training and practice, but once learnt, it is a boon for writers with tight deadlines: script is produced faster both because it is shorter, and because there is less uncertainty and likelihood of error: e.g. *harass*, *embarrass* at last match!

[8] The quote from Harry Lindgren's book is good: "I want us to climb the left peak and I think right. Let's go towards them while we argue about it". By all means — but let us also accept that the peaks are shrouded in mist, and there are several paths!

Doug Everingham's Table of Phonemes vs. Gargoyles

SOUND → NOW SPELT ↓	au	u:	ou	o:	o	aʌ	a:	æ	ər	e	ei	ai	i:	i
<u>		tutu				up			onus	bury				busy
<ue>		rue							vaguer	guest	applique		marquee	
<ou/ow>	out	caribou	soul	four		country			honour					
<ough>	plough	through	though	thought	cough	rough <?ff>			thorough					
					lough	hic-cough <p>								
					(loch)									
<oe>		shoe	toe	o'er*					oedema	foetid			foetus	
<o>		do	so	or	on	won			apron					women
<au>	sau-		bu-	taut	Aussie		aunt		austere					
	erkraut		reau											
<augh>				aught			laugh							
<a>				all	was	mama	aft*	ax	sofa	any	aping			
<ae>									aes-	haem-	sun-	aery*	aeon	adage*
									thetic	orrh-	dae			
<a -e>							are	have	senate	ate*	hate			
<ai>								plait	boat-	said	aid	aisle		
									swain					
<ay>									moray	says	say	ay(e)	quay	
<aig>											campaign			
<aigh>											straight			
<eh>											eh			
<e>			shewing						open	led	cafe		be	
<ee>										three-	nee		fee	
										pence*				
<ey>											hey	eye	key	
<eo>									surgeon	leopard			people	
<ei>									villein	heifer	rein	eider	seize	
<eig>									sovereign		reign			
<eigh>											sleigh	sleigh	Leigh	
<igh>												light		
<ig>												sign		
<i>									office			hi		
<ie>										friend		hie	siege	

* Concise Oxford Dictionary 1964 pronunciations. Lindgren leaves open what words may be written in more than one way to suit main speech communities, e.g. *le(i)sure*, *alumin(i)um*.

In summary:	Rules	Sounds	Spellings	Words	World Usage	Consensus	Homophone Creation
SR1	1 logical	1 (all occurrences)	1 from 12 (1 in 80 of text)	>500	+	All reform bodies	3
Omit redundant letters <gh-ph> reforms	4	40	Hundreds	10 000x (1 in 3 of text)	No change sought	Under constant review	Dozens
	60	12	17 from 8	Few hundred (1 in >100 of text)	Not sought	Varies	Few: <doh> etc.

[*Journal of the Simplified Spelling Society*, 9, 1988/3 pp.30–33 in the printed version]

[Edward Rondthaler: see [Bulletins](#), [Anthology](#), [Journals](#), [Newsletters](#), [Personal View 8](#)]

9. Updating Edward Rondthaler's *Simplified American Spelling*

Many readers will already know Ed Rondthaler's major work, the *Dictionary of Simplified American Spelling*, with its associated computer program for converting TO automatically into the new orthography. Ed Rondthaler has always been open to discussion and suggestion (see references under his name in the *Index* to SSS *Newsletters* and *Journals*, and has been steadily refining the system; we here present the 1988 update. It is a mark of his generosity towards the Simplified Spelling Society that he has made copies of his *Dictionary* available free of charge, and we have now received further copies of the 1986 edition. We follow the *Update* below with a review of the *Dictionary* from Valerie Yule.

1988 changes in 'American' spelling

The December 1986 'scholars' edition' of the American Spelling Dictionary was issued with a call for suggestions to improve compatibility between traditional spelling and American spelling, to clarify the rules and, where possible, to provide better phoneme-grapheme correspondence.

Change 1: Terminal <-s> replaces terminal <-z> in plurals, possessives, and 3rd person present singulars

A weakness of American spelling is the use of the suffix <-z> (and <-ez>) for most plurals (*roomz*, *wishez*), for possessives (*carz*), and for third person singular present tense (*he cheerz*, *she singz*, *it runz*; *he pleeez*, *she loozez*, *it cauzez*). This frequent use of suffix-<-z> is uncomfortable to present readers.

Suffix <-z> easily changes to suffix-<-s> (and <-es>) when it is understood that in plurals, possessives, and third person singular the suffix <-s> is normally given a <z>- sound (*rooms*, *wishes*, *cheers*, *sings*, *runs*, *has*, *mobs*, *beds*, *car's*, *gums*, *sisters*; *pleezes*, *loozes*, *cauzes*) — unless it is audibly impossible to do so (*its*, *lips*, *baks*, *reefs*, *fifths*, *tonics*). This takes advantage of a 'predictable generality' in our traditional orthography. In speech we normally give suffix <-s> a <z>-sound after voiced phonemes when the resulting inflection is plural, possessive, or third person singular present tense. Predictable generalities in traditional English spelling are often cited as an explanation for our illogical spelling. Most generalities in English spelling, however, have unpredictable exceptions, and are 'predictable' only to those who have already learned the exceptions. The use of suffix <s> pronounced as /z/ for plurals, possessives, and present tense third person singulars has no exception in American spelling.

Replacing suffix <-z> with suffix <-s> in these circumstances affects 67% or 6107:53335 of the plurals and present third person singulars. (The remaining 33% are already written with suffix <-s>: <cs, fs, ks, ps, ts>, and voiceless <ths>.) This change makes many more words — about 4.4% on an average page — identical with or significantly closer to traditional spelling. It also removes 3 important words (*is*, *his*, *has*) from the 'sight word' list.

TO	rooms	wishes	car's	cheers	movies
1986	roomz	wishez	carz	cheerz	moovyz
1988	rooms	wishes	car's	cheers	moovys
TO	runs	lips	its	fifths	backs
1986	runz	lips	its	fifths	baks
1988	runs	lips	its	fifths	baks

Change 2: Terminal <-s> in other uses

The above change leaves about 1,000 root words — words without suffixes — ending with an <s>-sound:

<i>English</i>	class	condense	dance	atlas	service
<i>American</i>	clas	condens	dans	atlas	servis

Very few <s>-ending roots have a <z>-sounding 'twin'. Fortunately <s>-enders are largely one-of-a-kind. There are, for example, no such words as:

claz condenz danz atlaz serviz

Thus a single <s> serves the reader as sufficient signal for the terminal <s>-sound:

clas condens dans atlas servis

In the occasional case where an <s>-ending root does indeed have a <z>-sounding twin, context will make the meaning clear, precisely as it does in speech:

Thair ar six tens in sixty .
It was a tens meeting.

She goes at a fast paes and paes her dets promptly.

It should be pointed out, of course, that endings in <z>- sound that are neither plural, nor possessive, nor third person present tense will continue to be written with terminal <z>.

TO	jazz	glaze	fuse	rise	close
1986	jaz	glaez	fuez	riez	cloez
1988	jaz	glaez	faez	riez	cloez

But:

TO	closes	rises	flies	bees
1986	cloezez	riezez	fliez	beez
1988	cloezes	riezes	flies	bees

Change 3: <ur> becomes <er>

The distinction between <er> (unstressed) and <ur> (stressed) as shown in the 1986 dictionary, is dropped in favor of <er> in all cases. This eliminates the first two sentences of Rule 5 p.15 in the 1986 *Dictionary*.

The change affects 2.3189%, or about 12 words on a page. (2006:23189)

TO	third	urgent	adversity	early	lurks
1986	thurd	urjent	advursity	urly	lurks
1988	therd	erjent	adversity	erly	lerks
TO	learn	turned	perverter	fern	
1986	lurn	turnd	pervurter	furn	
1988	lern	ternd	perverter	fern	

Change 4: <uur> changes to <ur>

The above change frees the digraph <w-> for other uses. It replaces <uur>, thus reducing the frequency of the unfamiliar <uu> digraph by 26%. This limits <uu> to about half the frequency of <oo> — to once in every 83 words rather than once in every 60.

Changing <uur> to <ur> would affect 0.4493%, or 2 words per page. (213:4493)

TO	jury	sure	plural	your	neuritic	touring	pleurisy
1986	jury	shuur	pluural	your	nuuritic	tuuring	pleurisy
1988	jury	shur	plural	yur	nuritic	turing	plurisy

Note: <ur> preceded by <c> retains the cr> pronunciation: *curb, ocur, curent*

Change 5: Unstressed <ue> becomes <eu>

TO accumulate
1986 acuemuclaet

In normal speech we have three variations of pronunciation for long <u>:

- 1) Stressed as in *unit*
- 2) Unstressed as in *unite*
- 3) Diluted as in the second <u> of *accumulate*.

This third variation is best described as a diphthong consisting of 'half long <cc> plus schwa' (i.e. schwi + schwa). The American 1986 <ue> spelling for schwi + schwa is unsatisfactory. It does not represent the sound. A new American digraph — <eu> — diluted and always used medially, is a better representation. See Rule 14, page v.

This change would affect 0.2426% or about 1 word per page. (386:2426)

TO	accumulate	communist	ambulance
1986	acuemuclaet	comuenist	ambuelans
1988	acuemoulaet	comeunist	ambeulans
TO	monument	muscular	soluble
1986	monuement	muscuelar	insoluebl
1988	moneument	musceular	insoleubl
TO	attribution	argue	ridicule
1986	atribueshun	argue	ridicuel
1988	atribueshun	argue	ridicuel
1988	atribeutng	argeument	ridiceulus

Such <ue/eu> change in a derivative is rare.

Change 6: <y> as a consonant. <e, i, y> as half-ee (schwi) vowels.

Eliminating <lly> affects 0.0610%, or one word on every 4th page. (68:610)

TO	million	millionaire	brilliant
1986	millyon	millyonair	brillyant
1988	milyon	milyonair	brilyant
TO	bilious	cognac	familiar
1986	billyus	connyak	famillyar
1988	bilyus	conyak	familyar
			familiarrity (6 syllable)

Eliminating <nny> affects 0.1076% or 1 word on every 2 pages. (85:1076)

TO	onion	union	convenience
1986	unnyon	uennyon	conveennyens
1988	unyun	uenyun	conveenyuns
TO	communion	senior	saviour
1986	comuennyon	seennyor	saevuer
1988	comuenyun	seenyur	saevyur

Wording of the vowel-<y> Rule 3, page v, will be:

"The vowel known as 'schwi' (1/2-ee) is heard in the first <e> of *between*, the second <i> of *trivial*, and the final <y> of *yearly*. It has a tonal quality midway between long-ee and short-i. It always ends a syllable. It is never stressed. In the first syllable of a word it is written <e> (*evict, befor, reality*). Medially it is written <i> preceding <ly> or any vowel except <e, i> (*historian, abreeviaet, champion, patio, patioes, auditorium, hapily*). Elsewhere it is written <y> (*hapyest, chilyer, bountyful, carrying, victory, victorys*)."

Change 7: <nn> becomes <n>

It has been suggested that the awkward <nn> Rule 6, p.15 of the 1986 ASD could be eliminated by stating that the prefixes <en-, in-, un-, con-> deactivate the digraph <ng> (*engulf, ingres, unglamorous, conglomeret*) unless the <ng> digraph is followed by <g> (*conggres*).

This change would affect 0.0191%, or 1 word in every 10 pages. (46:191)

TO	engulf	ingress	unglamorous	conglomerate	congress
1986	engulf	inngres	unnglamorous	conglomeret	congress
1988	engulf	ingres	unglamorus	conglomeret	conggres

Change 8: off, oss, ong

A more accurate wording for Rule 7 on p.15 of the 1986 *Dictionary*:

"Short <o> followed by <ff, ss, ng> (*offer, cross, long*) is frequently pronounced <au> as *auto*, or midway between short <o> and <au>."

Change 9: due, tue, nue

Rule 13, page v, eliminates the need for two-thirds of p.293 in the 1986 ASD.

"When the long vowel <ue> is preceded by <d, t, n> (*duty/duety, tune/tuen, numeral/nuemeral*) it is frequently pronounced <oo> or midway between <ue> and <oo>."

Change 10: Improving awkward combinations

The most unfamiliar combinations of letters in the 1986 American spelling are unstressed<choo, zhoo, joo>:

TO	casual	infatuate	actual	individual
1986	cazhooal	infachooaet	akchooal	indivijooal
TO	usual	situation	intellectual	graduate
1986	uezhooal	sichooaeshun	intelekchooal	grajooaet
TO	eventually	virtuoso	throughout	
1986	evenchooaly	verchoooeso	throoout	

This unfamiliarity has been reduced in 1988 American by taking advantage of the 'generality' that frequently employs <u> to represent the "unstressed co-sound followed by a vowel" in traditional spelling (*casual, infatuate, virtuoso*)

This leads to Rule 12, page v:

"When the unstressed co-sound follows <j, ch, zh> it is written <a>."

TO	casual	infatuate	actual	individual
1986	cazhooal	infachooaet	akchooal	indivijooal
1988	cazhual	infachuaet	akchual	indivijual
TO	usual	situation	intellectual	graduate
1986	uezhooal	sichooaeshun	intelekchooal	grajooaet
1988	uezhual	sichuaeshun	intelekchual	grajuaet
TO	eventually	virtuoso	throughout	
1986	evenchooaly	verchoooeso	throoout	
1988	evenchualy	verchuoeso	thruout	

[*Journal of the Simplified Spelling Society*, 9, 1988/3 p32 in the printed version]

[Valerie Yule: see [Bulletins](#), [Anthology](#), [Quarterly](#), [Journals](#), [Newsletters](#), [Personal Views](#) 10 & 16, [Media](#), [Books](#).]

10. Edward Rondthaler Dictionary of *Simplified American Spelling* Review by Valerie Yule

Edward Rondthaler & Edward Lias *Dictionary of Simplified American Spelling: an alternative spelling for English*, New York: the American Language Academy, 312pp., US\$12.00 (US\$13.50 overseas).

Valerie Yule is now based at the Faculty of Education, Monash University, Clayton, Vic. 3168, Australia, but was previously Honorary Research Fellow, Department of Psychology, University of Aberdeen. This review was written before the announcement of the 1988 changes to *Simplified American*, as listed in the previous item in this *Journal*.

Authors and background

One of the last frontiers for the application of science, curiously enough, is improvement of the writing system for the English language. In the eyes of many it remains an impossible dream — a realm for armchair argument and eccentrics. There are straws in the wind that this situation may be changing, although this dictionary can hardly be called a straw.

It is the work of two men who have been pioneering spirits in other fields. Dr Edward Rondthaler was one of the founders of modern photolettering and typesetting techniques, and is still active as President of Photolettering Inc., and Chairman Emeritus of the International Typeface Corporation, the firm responsible for 90% of contemporary typefaces. Dr Edward Lias, the author of *Future Mind*, is an international consultant specialising in emerging technology and the study of the future, a Director of Worldwide Educational Information Systems, Unisys, Inc., made up of both Sperry and Burroughs. It is understandable that such a combination of inventive minds in two fields of visible communication should turn to the biggest communication problem still facing the English-speaking world — its spelling.

The computerised dictionary of 44,000 words they have produced is actually an historical landmark. Firstly, it demonstrates how the technological problem of printing and transliteration in an improved English spelling which once appeared the greatest problem, is now soluble, and indeed relatively simple, with computerisation. Their computer program can automatically produce any orthographic or language version programmed in by it for any of its 45,000-word databank in English spelling. It is like a Spelling Checker — but works as a Spelling Improver. Secondly, there are the aims of the authors themselves.

The goal is to provide alternative spellings for English that are compatible with present spelling (unlike traditional spelling reforms), and so can co-exist with it, but which nevertheless represent American speech so clearly and consistently that the English language could be "written as it sounds and pronounced as it is written". Unacceptably high rates of illiteracy and semi-literacy in English have persisted despite exceptionally high investment in education in English-speaking countries for over a century. The authors' belief is that there could be a substantial reduction in this problem if learners did not have to learn two languages, the spoken and the written, which were so different and so inconsistently related to each other. Many others have been of like mind — men of action like Andrew Carnegie or Theodore Roosevelt, of linguistic scholarship, such as Skeat, Godfrey Dewey or Gimson, or of brilliant and inventive genius, from Benjamin Franklin, Mark

Twain, Charles Dickens and Bernard Shaw to Isaac Asimov, the doyen of science fiction writers, and John Atanasoff, the co-inventor of the electronic digital computer.

The publishers, the American Language Academy, include among their trustees John Henry Martin, the educator responsible for the *Writing to Read* literacy program sponsored by IBM, in which children begin to read and write in a simplified version of present spelling, to facilitate immediate transition to reading and writing conventionally, and thus avoid the drawbacks of the Initial Teaching Alphabet. Evaluation of this project has not yet, but must, at some stage, sort out the value of such an introductory spelling from the value of the particular pedagogy used and the IBM hardware and software that is also employed, but final outcomes will surely illuminate the question of how much advantage may be gained by closer links of written with spoken English.

The Importance of Research

Whether learning to read and reading itself could both in fact be made more efficient by modifying the task is a question that cannot be resolved by continuing century-old armchair arguments about spelling reform. What is required, surely, before the year 2000, is empirical research, both scholarly and action-oriented. Rondthaler and Lias' work provides a useful handbook to assist such research. It has great potential value as a computerised resource, because it makes possible the retrieval and sorting of information about any phonological or orthographic feature of English, at the touch of a button — for example lists of words that include a particular spelling, such as <-ious>, or words that include a particular pronunciation, such as /zhun/. It becomes a simple matter to check empirically any anecdotal evidence about the nature of English spelling, for example to test the Chomskys' [\[1\]](#) [\[2\]](#) claims that English spelling represents the "deep structure" of the language. The supplementary detail included provides a useful reference, giving for example frequency figures for each word listed, detail how the 44 or so English phonemes are currently represented by more than 400 graphemes, information on alternative spellings already in current use (including advertising), and notes on questions such as homophones, dialects, diacritics and how to represent plurals that are sometimes pronounced as /s/ and sometimes as /z/.

Rondthaler and Lias also face and illuminate some of the problems that are built into our present spelling that make any consistent improvements difficult — for example, how to represent final /s/ and /z/ sounds where they are common as tense and plural inflexions as well as terminal sounds of singular nouns. Is there value for fluent reading for meaning in the current custom of using final <-s> as a grammatical marker, regardless of pronunciation (which is an artefact of articulation anyway?) If so, what should happen to the spelling of singular nouns such as *dense*, *fence*, *grass*, *oasis*, *coalesce* or *impasse*? Again, what happens to 'Chomsky' words in a simple speech-representing spelling, when suffixes result in changed pronunciation of vowels, as in *nation*: *national*, *recede*: *recession*? Would a completely phonemic spelling, such as *naeshun*: *nashunal* or *reseed*: *reseshun* make it harder for learners to identify new vocabulary or skilled readers to read fluently for meaning? Testing, not hunches, is required.

Ideal vs. optimum orthographies

Rondthaler leaves some of the most common words, such as *is*, *was* unchanged, which is in line with concessions to practical use made by the world's more consistent orthographies, both recently reformed or custom-made for formerly illiterate societies. Indeed, it is quite possible that a spelling 'ideal' in theory might not be the 'optimum' spelling in practice, which might involve systematic modifications where these would facilitate learning or reading. 'American Spelling' itself gives some examples of how theoretical perfection might be in practice a deterrent. Although overall it is more economical than present spelling by cutting out 'surplus' elaboration — as in *littl* rather than *little* — a proportion of polysyllables is in fact lengthened. Spellings such as *depreeshyaeshun* appear repelling as well as pedantically representing speech. It would be quite terrible to spell, and indeed, would probably be more difficult to read than *depreciation* itself. The lessons from the 'natural'

spelling of child beginners, and from English pidgin orthographies seem to be that single letters for vowels are easiest to learn and use, and that pronunciation patterns are usually picked up quickly as long as they are systematic. As I see it, it is a problem that 'American Spelling' may reproduce slurred informal speech further than may be useful for readers.

The reason for this is that the authors perceive potential application of the system as the standard pronunciation notation for dictionaries. Many if not most of the re-spellings provided could in this way also enter the orthography as acceptable alternatives, joining hundreds of alternative spellings that are already listed in modern dictionaries. Its principles of spelling are so simple that they are listed in a small box on every page of the dictionary listings and could be understood by children. In view of the difficulties of providing notation that children can understand, most current children's dictionaries and wordbooks do not give pronunciations, although it is these young learners who need the most help.

Slurred spelling for slurred speech?

However, the result of this lexicographic ambition is that American Spelling has to follow speech rather too closely in some instances. Although most of us may say *pikcher*, *akehooairial* and *abolishun* and only a few of us enunciate *picture* and *actuarial* as clearly as they are written, there may be semantic advantages in retaining the visible link of *picture* and *depict*, and of retaining *act in actuarial*, and in keeping the internationally recognisable terminal grapheme <-ion>. The more formal spelling could assume a more slurred articulation. A more 'morphemic' spelling, that is, representing units of meaning more closely, might also help those whose speech has already slurred into *pichi* and *achairial* to have a clearer 'form of the word' to speak as well as to say. The editors recognise this problem.

Research is beginning to investigate how adult readers respond to different types of spelling change, and is finding that some forms require no special adjustment or retraining (Yule and Greentree) [3] and do not affect 'backwards compatibility' — that is, maintaining access to everything at present in print. Modern computer technology also solves the previous seemingly intractable problem of change-over and transliteration.

However, for any change in English spelling to be the best possible, we need to reanalyse our existing research on human abilities and needs in the whole field of literacy according to this practical question, as well as carrying out more direct investigations (Yule). [4] An international English spelling that made universal literacy in English more possible would rank not far behind our electronic achievements as one of the greatest benefits to communication of this century. And everywhere that research for this will be carried on, the Dictionary of Rondthaler and Lias will be invaluable.

It need hardly be added that in a work by the co-pioneer of photolettering, the typeface is beautiful and the layout excellent.

References

- [1] Chomsky, C (1970) 'Reading, writing and phonology' in *Harvard Educational Review*, 40, pp.287–309.
- [2] Chomsky, N & Halle, M (1968) *The sound pattern of English*, New York: Harper and Row.
- [3] Yule, V and Greentree, S (1986) 'Readers' adaption to spelling change' in *Human Learning*, 5, pp.229–241.
- [4] Yule, V (1986) 'The design of spelling to match human abilities' in *Harvard Educational Review*, 56, pp.278–297.

11. Media: 'Spelling it out' on BBC 1

Between 16 October and 18 December 1988 BBC television is broadcasting eight 10-minute programmes on English spelling. They are being shown on Sunday evenings at 1815 and repeated the following Sunday morning at 1010. Though lighthearted in tone (with cartoons as mnemonics), the programmes have a serious educational purpose, with an accompanying book and produced in association with ALBSU and the Open College. Each instalment includes some factual information about the history, structure, social status etc of English spelling, and the producer, Charles Pascoe, took advice from the Simplified Spelling Society for programme 5 (November 20/27), which deals with spelling reform and shows Edward Rondthaler's *Simplified American Spelling*, as well as explaining the work and aims of the Society.

12. Publications and Conferences

Publications Available [at the time of publication only]

The following publications are available for cost of postage and packing only (please add £1 for dispatch outside the UK)

1. Free publicity leaflets: members are encouraged to distribute copies to interested individuals and organisations. For orders over 50 copies, please send £1 p & p.
—[Introducing the Simplified Spelling Society](#).
—[Introducing the Cut Spelling Streamlined Writing System for English](#)
—*AIROE Pour une simplification de Porthographe* (information on the French equivalent of SSS)
2. The CLIE (Committee for Linguistics in Education of LAGB & BAAL) produces a series of working papers, of which Nos. 10 & 11 concern English spelling. SSS members may request a free copy of [No. 11, English Spelling and Educational Progress](#) by Christopher Upward (28pp). A catalogue of all CLIE working papers, including No. 10 (Michael Stubbs *The Synchronic Organization of English Spelling*, reviewed by Edward Rondthaler in [JSSS 88/2](#)) may be obtained from series editor Thomas Bloor, Modern Languages Department, Aston University, Birmingham B4 7ET.
3. The text of the Society's classic 1948 spelling reform proposal [New Spelling](#) (Ripman & Archer, revised by Daniel Jones and Harold Orton) is now available again to members in photocopied form; send £1 p & p.
4. The *Dictionary of Simplified American Spelling* (1986) edited by Edward Rondthaler and Edward J Lias. The system is developed from *New Spelling* and i.t.a., for use in conjunction with J H Martin's *Writing to Read* scheme. It is highly recommended as a reference work and for its analysis of spelling problems, and for further research into the representation of pronunciation in dictionaries and the possibilities of a radical reformed spelling system. £2 p & p.
5. Newell Tune's [Spelling Reform: a Comprehensive Survey](#), some 140 articles republished from *Spelling Progress Bulletin* and compiled with the assistance of SSS members Harvie Barnard and Valerie Yule. 298 pp. £2p&p.
6. Arnold Rupert's pamphlet *School with less pain*, describing an interesting reformed orthography based on an expanded alphabet that exploits the character-definition capabilities of modern word-processors.
7. Nina Catach's standard paperback on French spelling *L'Orthographe*, 3rd edition 1988. £1 p & p.
8. We hope soon to offer Harry Lindgren's provocative and entertaining *Spelling Reform: A New Approach*. £1 p & p.

Received

Publications and papers recently received include:

Adult Literacy and Basic Skills Unit (ALBSU) *Newsletter* No.29 Spring 88, No.30 Summer 88, No.31 Autumn 88

—, Information Release *Adult Literacy practitioners to visit USA*

— *English Today Vol.IV* No 3 July 1988, Vol.IV No.4 October 1988

Th R Hofmann 10 *Voyages in the Realms of Meaning, Tokyo: Kuroshio Press, 1986*

UK i.t.a. Federation Newsletter, Summer 1988, Autumn 1988

Institut für deutsche Sprache, Mannheim *Sprachreport 3/88* Spelling Action Society (Australia) *Spelling Action*

United Kingdom Reading Association (UKRA) *Journal of Research in Reading*, Vol. I 1 No.2

September 1988 Denis Vincent & Jenny Claydon *Diagnostic Spelling Test*, NFER-Nelson, 1982

Members wishing to consult any of these titles should contact the Editor of the *JSSS*.

Conferences

International Association of Teachers of English as a Foreign Language (IATEFL)

will be holding its 26th Annual Course and Conference at the University of Warwick from 31 March to 3 April 1989,

including papers, demonstrations, workshops, colloquia, poster sessions, publisher's sessions, book exhibition, social programme.

United Kingdom Reading Association

will be holding its 23rd international conference at Edge Hill College, Ormskirk in July 1989.

The UK i.t.a. Federation

held its 1988 Course Conference in Leamington Spa from 28–30 October 1988, and will be holding its 1989 Course Conference in Warwick