

Spelling Reform Anthology edited by Newell W. Tune

§11 Spelling and Oracy

This section shows the relationship between the spoken language and spelling and learning to read English.

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[Spelling Reform Anthology §11.1 pp158-159 in the printed version]

[Spelling Progress Bulletin Fall 1979 pp3-4 in the printed version]

1. Correspondence of G. B. Shaw relative to Simplification and Rationalization of Spelling*

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Some thoughts of the late George Bernard Shaw relevant to the Simplification & Rationalization (S & R) of English for making more successful the earliest stages of learning English by those who usually speak languages other than English.

The thoughts cover S & R for learning literacy and for learning oracy also, so that English may be understood, and in both forms, by all others in the English speaking world.

The S & R he envisaged covered not only the notation of the sounds to be spoken (or imagined for silent reading), but also the vocabulary and grammar of the language first taught.

Shaw's case for a new, non-romanic alphabet have been purposely ignored in this selection. (I.J.P.)

Mr. Robert Bridges: [\[2\]](#) 4 Feb. 1910.

It is hard to say that there is a psychological moment for reforming spelling, or the calendar, or for adding those two digits to our numbers which would combine the advantages of the decimal and duodecimal methods of computation. It may be, however, that we have at last succeeded in making the anti-phonetic stupidity unfashionable. But I confess I am not very sanguine about it. The only people who have got any money in the business are those silly Simplified Spelling Americans who have provided my friend William Archer with an office and a secretaryship in London. As far as I know, they are doing what in them lies to make the reform thoroughly unpopular and ridiculous.

I have been for a long time convinced that the two most important points to get into people's heads

are, first, that unless the phonetic spelling is carried out with sufficient boldness and thoroughness to make it quite unlike ordinary spelling and so avoid that ludicrous effect of being simply illiterate misspelling which was so comic in the works of Artemus Ward, the reform will die of ridicule, and, second, *that if we do not spell words as they are pronounced, our readers will pronounce words as they are spelt, so that in the end we shall have a change in the English spoken language which is in no way desirable*. On this second point in particular I should always blame the phoneticians for a lack of debating instinct which has prevented them from carrying the war into the enemy's country. The modern pronunciation of such words as 'oblige' proves that in the long run scholarly pronunciation cannot stand out against spelling. This has been especially forced on my attention by my intercourse, in Labor and Socialist movements, with working men who read a great deal, but have no opportunity in their own class of hearing the words they read actually spoken. They therefore have to resort to *such pronunciation as the spelling may suggest to them*: for instance, semi-conscious becomes see-my-conscious. If this only led to their being laughed at, it would be painful and unjust; but it would not hurt the language. Unfortunately, it becomes accepted as *the standard pronunciation with quite appalling rapidity*, because if you and I persist in the Orthodox pronunciation, we are simply not understood, just as if you tell a London cabman to drive to Arundel street, he does not understand you; whereas if you tell him to drive to Rundle Street, he understands you at once. Perhaps he may be right; I really do not know what the proper pronunciation of Arundel is; but the illustration is none the worse.

An insistence on these points has been practically my only contribution to the movement. I do not know whether I was the first to urge them; but certainly in the old days of Alexander J. Ellis and James Lecky, none of the men on our side made any use of them.

The man of that time I had most hopes for was Henry Sweet; but Sweet's utter want of any sort of social tact - sometimes even of common humanity - seems to make him hopeless except as a writer of books which are only read by specialists. At the time when Imperialism was booming, I induced the editor of one of the leading reviews to invite Sweet to write an article on the importance of phonetics as a means of not only making the English language easy to learn, but also of preventing it from finally splitting up into dialects which would make American and Australian and South African and Eurasian practically foreign languages. Sweet jumped at the opportunity to make a terrific attack on an Oxford professor whom he regarded as an imposter from the phonetic point of view, on the University for giving the professor the appointment, and on the Universe generally for tolerating the University. The editor of course refused to print the article (which would probably have involved him in a libel action) and if Sweet ever writes another magazine article, he will probably devote it to a similar denunciation of that editor of that magazine, and by extension, of the entire press of the world. I then tried to get a sort of Chair of Languages established at the London School of Economics; and if Sweet had been socially capable of following this up, and had been willing to shift his quarters to London, I believe I might have pulled it off. But Sweet has now got the Oxford habit of life in his antagonistic way just as hopelessly as any Don has got it in the conformist way; so nothing came of it.

What we want now is a phonetic institute of some kind or another, either independent, or as a branch of some of our great educational institutions. I believe the British Museum has already taken steps to procure and store for future reference phonographic records of contemporary speech. As a definite project, it might strike the imagination of the country a little, I should suggest that a fund should be collected for the purpose of printing a *phonetic Shakespear*. It so happens that at this moment we have one actor, Forbes Robertson, who, being Scotch by extraction, speaks a dignified, handsome, and what I should call correct English, and not the dialect of the motor car and the week-end hotel. [3] If we could get some good gramophone records of speeches from Robertson's Shakespearian parts, and agree upon a method of recording his pronunciation in ordinary type, so as to make the book available for the use of actors and the public generally, we

could employ some young man - say one of Sweet's pupils - to prepare a complete Shakespear. This, of course, would be a considerable job; but it has the advantage that if it were found too large an undertaking, it could be cut down to a selected number of plays, or even to one play: say Hamlet. I have sometimes thought of getting a gramophone record made of Robertson's delivery of the Sphinx speech in my own Caesar and Cleopatra and proceeding as above to issue a phonetic edition of the play as a sort of document in the history of the language. But I had only time to imagine these things; when it comes to action, I find myself always with two years arrears of pressing literary work on my hands and so nothing gets done. I daresay you are pretty much in the same predicament yourself. Until by some means, we can get a little group of trained phoneticians who will put all their time into the work for a modest salary, nothing but talk will come of it.

I need hardly say that it would be very delightful to make gramophone records of some of your poems, as spoken by yourself. The advantage of this sort of thing is that it gets rid of the entirely impossible and insoluble question as to whether your pronunciation is ideally correct, which is the rock that splits all the phonetic enterprises. If we could leave in the British Museum - failing a public institution specialized for phonetics - a record of your pronunciation, with a simple statement of your birthplace, and education, and class, and, if necessary, a string of testimonials from your contemporaries to say that your speech was that customary among educated Englishmen of your time, with any criticisms they like to add, as, for instance, that you pronounce such and such words like a Kentish man, or that you had an Oxford drawl, or had inherited some locution from an Irish grandmother, or anything else that might strike them, the phoneticians of the 25th century would at any rate have something to go on that we have not got with regard to Shakespear or Chaucer. In the same way, all question as to whether Robertson's pronunciation is correct could be set aside: the record would go down as Robertson's pronunciation for what it is worth, with of course the information that Robertson was accepted as the finest speaker on the British stage. If we had such a record of Garrick's pronunciation we should never dream of questioning its value simply because no twenty scholars of Garrick's time could have been induced to agree that his pronunciation was ideally correct.

I throw out these suggestions more or less at random. I do not exactly know what you propose that we should do though I am tolerably certain that I shall not have time to do anything of it. But if you can plan a campaign with any sort of promise in it, I am game to give it my blessing and subscribe a few pounds towards paying for the executive part of the business.

Yours faithfully, G. B. S.

[1] From the collection of Sir James Pitman, K.B.E.

[2] Poet Laureate at the time, who had many of his poems printed & published by the Oxford Univ. Press in a S & R alphabet of which CBS impliedly approved.

[3] Shaw, in his will, chose & required, "the pronunciation of His Late Majesty, King George V," of which there are plenty of audio-recordings.

[Spelling Reform Anthology § 11.2 pp.159-164 in the printed version]

[Spelling Progress Bulletin Fall 1974 pp7-12 in the printed version]

2. Oracy and Literacy, by Sir James Pitman, K.B.E.*

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The part played by the learning medium in the acquisition of both language skills in a second language.

Reviewing the Past

In the past consideration has been concentrated on the efficiency of the teacher and his methods rather than on the medium in which the teacher, the method and the student are required to function. It is true that the International Phonetic Alphabet (I.P.A.) had a vogue as an initial learning medium, but it has today too small a following to be relevant, save as a pointer.

The great success of the Initial Teaching Alphabet [1] and its wide adoption by many thousands of teachers throughout the English-speaking world has brought to the surface the need to consider the fundamental questions of language learning and, in particular, whether a medium which is greatly more efficient in teaching literacy to those who have oracy in English might not be at least as beneficial in teaching both oracy and literacy to those who have neither.

Teaching English Oracy

When it comes to teaching English oracy as well as literacy, a modification of the Initial Teaching Alphabet (i.t.a.) is clearly desirable. A medium designed for teaching only literacy to those who already have English speech as their first language can hardly be the best also for the different purpose of teaching both oracy and literacy in English.

Contrasting Purposes

A medium (such as i.t.a.) for the initial teaching of literacy to those who already speak a mother tongue is all the better for being no more than a reading system - i.e. one which proceeds from grapheme to phoneme based no better than on a broad transcription - seeing that a reading system need not be perfectly phonetic, or even phonetic at all, (ours is only partly).

That any reading system which is only partially, or not at all, phonetic should come to be easily read may seem surprising, but this nevertheless has happened in a number of languages, no doubt because learning to read and write has followed, not preceded, learning to listen and speak. Thus the skilled speaker of any language who becomes later a writer and reader is able to anticipate each word and supply any missing word (or a satisfactory synonym) to overcome any misprint, or even blank in what he is reading. This he does because he enjoys the benefit of context which enables the reading system for that language to be effective (when learned) notwithstanding that the system may be only very imperfectly phonetic, as in the case of English literacy, or not even phonetic at all - or even alphabetic - as in the case of Chinese literacy. [2]

This the reader may well concede when he appreciates how he is able to forestall, or later to retrieve, what words he needs to complete the context, and how readily misprints are correctly read and how legible can appear a passage.....contains blank spaces in the places of some of the printed..... This happens because ... missing are supplied .. the reader, provided he is a skilled, and is thus able to infer from ... context clues adequate to identify the words. This he is enabled .. do by ... knowledge of the language and .. the subject covered. Thus a medium for reading may not only be very imperfectly phonetic but not even alphabetic at ..., as the reader will

have discovered from his success in reading a short passage containing two misprints and thirteen spaces. [2]

A difference in purpose

However, a medium intended for the initial teaching of oracy as well as literacy needs to be up to a point a writing system as well as a reading system, that is to say one which is alphabetic to a higher degree - a degree which nevertheless can never hope to be absolute. [3]

That which is to be presented to the learner of speech in any unknown language must take much less, indeed very little, for granted: the learner must be assumed to be totally ignorant of the sounds of the new language and of the character-to-sound system, and to need to be taught both the sounds and the alphabetic system as well as their combinations in every word to be spoken or read - while of course being also taught their meaning.

Ordinary i.t.a. is a reading system designed for the purpose of teaching reading to those who already know English. It cannot unmodified be best also for the other and different purpose of teaching speech.

Modifications for this different purpose

How, then, should i.t.a. be altered for the purpose of teaching English speech? What phonetic clues need to be added and how can "Speech i.t.a." [4], in differing from ordinary i.t.a., supply them without sacrificing the precious advantage of similarity to Traditional Orthography? [5]

It may seem that the modifications in the specimen on this page are very few and unimportant. They are in fact many and very important. They seem few and unimportant because they give the additional phonetic clues with no disturbance either to the shapes of the 44 characters of ordinary i.t.a. or to the spellings with them. The sentences remain as easily readable by all who can read English in T.O. as those printed in ordinary i.t.a., because all the characters and all the spellings are unchanged. They are very important because they make ordinary i.t.a. sufficiently phonetic to allow the learning of oracy and literacy to proceed in parallel complementarily, and vice versa.

Variations in stress and in vowel sound

It has been possible, without any disturbance of compatibility with ordinary i.t.a., to indicate not only three degrees of stress, but also two additional vowels. [6] Primary stress is represented by black type, secondary by ordinary type, and absence of stress by smaller type. This difference in size offers a choice of "position" - either raised or pushed down in relation to the line of print. The employment of the smaller characters (in the lower of the two positions) thus provides not only an indication of loss of stress, but also a symbolization for the vowel change to the unstressed "schwa" - the vowel spoken in weak syllables such as those in "metal", "continent", "pencil", "atom", "upon", "picture", etc., and in the weak forms of words such as "are", "to", "that", "would", etc. Similarly, the positioning of the smaller characters in the higher position provides not only an indication of loss of stress, but also a representation of the unstressed "schwi", as I have called it, the vowel spoken in the weak forms of words and syllables such as "be", "been" (and such as "the" in front of a vowel or of "Y", in such conjunctions as "the onion", "the United States", "the yellow submarine"), etc., and of the weak syllables in "equator", "before", "Sunday", "committee", "dotage", "printed", etc.

It will be noted from the specimen of Speech i.t.a. on this page how much additional phonetic information has been supplied - all without any departure from the characters used or the spellings employed in ordinary i.t.a.

Where I.P.A. falls short

This text has been set in Speech i.t.a.

az everÿ reeder will nœ the internafjonal fonetik alfabet is wiedzly used az a meedium for teechiŋ liseniŋ and speekiŋ, but with sœ græt a departuer from the forms ov tradifjonal orthografi (T.O.) that teechiŋ ov reediŋ, rietiŋ and particuelarly ov spelliŋ in T.O. is grætly vifiatet.

thus the græt advantæj ov speech i.t.a. is that whiel it mæ bee used just ax effectivly ax I.P.A. tœ teech liseniŋ and speekiŋ, it offers aulsœ a much mor effectiv tœol in teechiŋ reediŋ, rietiŋ, and cueriusly ax reserch has establisht, eeven spelliŋ aulsœ.

The text following is in the I.P.A., as contrasting specimens. [\[6a\]](#)

az 'evrɪ 'i:de wiθ 'nœu, ði mtə'næʃnəl fə'netik 'ælfəbet ɪz 'wɪdzli 'ju:zd əz ə 'mi:diəm fə 'ti:tʃɪŋ 'lɪsnɪŋ ənd 'spi:kɪŋ, bət wið sœu 'græt ə dɪ'pɑ:tʃə frəm ðə 'fɔ:mz əv t'ɪə'dɪʃnəl ə:'θɒgrəfi (T.O.) ðet 't'ɪ:tʃɪŋ əv 'i:dnɪŋ, 'raɪtɪŋ ənd pə't'ɪkjuələri əv 'speliŋ ɪn T.O.ɪz 'grætli 'vɪfiətɪd.

ðæs ðə'græt əd'vɑ:ntɪdʒ əv speech i.t.a. ɪz ðet 'waɪt ɪt meɪ bi 'ju:zd ðʒəst əz ɪ'fektɪvli əz ɪpɑ tə t'ɪ:tʃ 'lɪsnɪŋ ənd 'spi:kɪŋ, ɪt 'ɒfəz 'ə:lsəu ə 'mʌtʃ mɔ:ɪ ɪ'fektɪv 't'ɪ:tʃ ɪn 't'ɪ:tʃɪŋ 'i:dnɪŋ, 'raɪtɪŋ, ənd 'k'ɪjuəriəsli əz ɪ'sætʃ hæz ɪs't'æbllɪʃt, i:vən 'speliŋ 'ə:lsəu.

Why I.P.A. falls short for that double purpose

The I.P.A., after all, was conceived internationally for a different purpose. Consequently in aiming at representing the speech sounds of all nations, the I.P.A. needed to sacrifice to a very high degree compatibility with the traditional orthography of any one national language. That this is so is clearly seen by comparing the above two passages, and by further contrasting the forms of the same passage translated into French and reproduced both in the I.P.A. and in l'Alphabet d'Apprentissage (a.d.a.) which I have proposed.

lə lɛktœr n e pa sũ savwar kə l alfabe fonetik ẽternasjonal (A.P.I.) e larʒəmũt ytilize kœm mwajẽ d ũsepũ dẽ l ekut e dẽ la parol, mez il e tɛlmũ diferũ dẽ l alfabe e dez epelasjũz ordina:r ← formz ẽprime tradisjonal → (F.I.T.) kœ l ũsepũ dẽ la lɛktyr e dẽ l ekrytyr ũ F.I.T. e gra:vmũt ũdœmæʒo. ẽsi lœ grũt avũtaʒ dẽ l alfabe d aprũntisa:ʒ (a.d.a.) aplike a la parol rezid dũ la posibilitẽ kil œfr, tut ũ puvũt ẽtr ytilize avek yn osi grũd ẽfikasite kœ l A.P.I. pur la formasjõ dẽ l odisjõ e dẽ la parol, d ẽtr œn uti boku plyz ẽfikas pur l ũsepũ dẽ la lɛktyr, dẽ l ekrytyr, e mem kyrjœzmũ, kom le rœferʃ l ẽt etablĩ, dẽ l ortograf.

le lecteur n^e pa s_x sav_x savoir que l'alfabe fonetiqu^e internasional (A.P.I.) e_t larjemen_t utilis_ee comme moi_yin d^eẽnsemen_e de l^aecoute e_e de la parole, mais il e_t tellem_en_t differ_en_t de l'alfabe e_e dees eepelasiõs ordinair_es — forms inprime_ez tradisionell_z — (F.I.T.) que l^eẽnsemen_en_t de la lecture e_e de l^aecriture e_n F.I.T. e_t gravemen_t e_ndœmmaj_ee. ɪn_si le grãt avãntaj_e de l^a.d.a. applique_e a la parole reeside dã_n la possibilitee qu^eil offre, tout e_n pouvan_t ẽtre utilis_ee avec une aũssi grãnde efficaçitee que l^a.P.I. pour la formasiõ de l^aũdisiõ e_e de la parole, d^eẽtre u_n outi bãũcou plus efficaç_e pour l^eẽnsemen_en_t de la lecture, de l^aecriture, e_e meme curieusemen_en_t, comme l_ez recherç_es l^eõn_t eestablĩ, de l^aortographe.

Why Speech i.t.a. and a.d.a. excel for their purpose

It will be noted how the two media, i.t.a. for English and a.d.a. for French, have been designed nationally, that is to say to maintain compatibility, each with its own traditional orthography. [7] The two media differ greatly from the I.P.A. In that they are both national, whereas the I.P.A. is international. The greater compatibility of both Speech i.t.a. and a.d.a. with their respective orthographies is convincingly demonstrated by the comparisons of each with the corresponding I.P.A. specimens. [8]

Where T.O. also fails - and fails even more badly

Where T.O. is used to teach the child both to listen and speak as well as to read and to write, great difficulties arise, but only because T.O. is misleading, and so harmful [9] as the medium for teaching oracy, and for teaching literacy while oracy is being also taught.

English spelling the barrier

It is generally admitted that English is one of the easiest (and one of the most valuable) languages to learn. Equally the misleading spelling of English is regarded as the great stumbling block - which makes it in practice among the most difficult. This cause of difficulty is, however, as we have now discovered, not inherent in the English language - only in the employment of T.O. as the medium for the earliest teaching - that is to say before a language skill in oracy (as well as literacy) has been developed. [10] Experience has now shown that the employment of an initial learning medium can eliminate much difficulty in those early stages - and with no subsequent ill-effects on the learner. In the past we have in ignorance accepted as inevitable a difficulty which can be circumvented. Everyone will admit that the spellings in T.O. are misleading and even contra-indicative of pronunciation, instead of being helpful. It has been only for that reason that the visual form of the language has been hitherto withheld from the child - who is thus taught literacy only when he has learned the spoken language.

Where Speech i.t.a. overcomes the difficulties

Thus not only has the I.P.A. been shown to fall short in its great departure from the patterns of T.O., but also T.O. has been shown to fall short in its so many contra-indications of pronunciations. Speech i.t.a., however, has been shown to combine the merits of both without the demerits of either. This is because Speech i.t.a. combines a high degree of that phonetic assistance which the I.P.A. affords with at the same time a high degree of compatibility with T.O. It is therefore an ideal initial medium for the learning of both oracy and literacy as complementary studies.

A positive aid

Indeed, because it is both highly phonetic and highly compatible, Speech i.t.a. enables the learner to learn listening, speaking, reading and writing together with comprehension, *pari passu*, during each learning period, including the very first period. In so doing, his ability to read and understand a great many of the words which he may see around him, notwithstanding that they are printed in T.O., will have been largely assisted without damage to his pronunciation. [11]

Thus all three of his senses may be involved supportively (and no longer conflictively as in T.O.) - first his sense of hearing /wuns/, then his sense of seeing "wuns", then his tactile sense not only in speaking /wuns/ but also in writing "wuns" - so that kinaesthetically the movements of his lips and vocal organs, as well as those of his fingers, hand and arms, are working in supportive harmony with his language experience in his two other senses. All the time too he will begin the transition from literacy in i.t.a. to literacy in T.O. With only few exceptions (of which "once" above is an example) the words he already knows in a passage are sufficiently alphabetic to be very easily guessed in context. Thus his earlier success in simultaneously learning oracy and literacy, so that each complements and supports the other, is accompanied by evident success also in the medium in which his literacy will finally continue.

Is the phonetic harmony close enough?

Might it be advisable to make the relationship between the visual and the auditory, the auditory and the visual, even closer? Could Speech i.t.a. excel even more in the merit of indicating pronunciation without losing unduly its high degree of superiority over the I.P.A. in its compatibility with T.O.? What advantage would there be in adopting one particular "accent" of spoken English and excluding all others, and employing an even "narrower" system of representation for that one which would thus need to be chosen?

The number of changes in order to make Speech i.t.a. agree even more closely with the more perfectly phonetic I.P.A. passage would be few and of little significance in value. [12] The issue is moreover more academic than practical seeing that, as will be shown later, the needs of compromise between the two differing teaching aims, oracy and literacy, involve a balance between the two aims in which the aptness of i.t.a., for learning literacy must be dominant once its aptness for oracy has been found - to be adequate for that other purpose.

A question of degree

The question, however, may with advantage be considered whether Speech i.t.a. ought to be left alone or be made even less [13] perfectly phonetic, even at some sacrifice of its aptness as a writing system. What then are the pros and cons of greater perfection and what is the proper balance between a reading and writing system?

Greater phonetic perfection not worth it

It is evident that the i.t.a. characters and spellings could be adjusted to give the phonetic information more accurately still - even up to the highest degree of phonetic representation which the I.P.A. can provide. This, however, could be worth while only if the purpose were to teach English speech, and with a perfect English accent - that, for instance, of Received Pronunciation (R.P.) if that were to be chosen. In which case the writing system would need to be phonetic to a high degree. [14] It would need, however, to be a different writing system if the choice of accent were to be different, depending for instance on whether the purpose intended for a learner were to be perfection in R.P. or a Mid-West American accent - or an Australian or a Lancashire accent. Each writing system will need most certainly to be different if the learner aims at so exact a pronunciation of that particular variety of English speech that he will be mistaken to have been born and brought up in educated circles in the South of England or, as the case may otherwise be, in America, Australia, etc.

Perfectionist or functional

Such a perfection in learning English as a second language is, however, for a very small minority only. The great majority are satisfied with a mastery of English speech which enables them, while communicating rapidly and accurately, to be congratulated on their accent as well as on their functional skill, well aware that the native listener is nevertheless making no false suppositions about the speaker's birth and upbringing.

Compatibility with the traditional literacy

The decision to aim with Speech i.t.a. no higher than such a (high) functional standard has enabled Speech i.t.a. to succeed in the double aim of teaching speech to the standard required and of maintaining complete compatibility of Speech i.t.a. with i.t.a., and so to retain its compatibility with T.O. which is so dramatically demonstrated by the comparison between the I.P.A. [Fig. 2] and Speech i.t.a. [Fig. 1] It has no doubt been right to sacrifice an even higher degree of phonetic perfection for the more practical aim of winning for the learner a high degree of communicative competence and a good (but acceptable) "foreign" accent. Furthermore, in aiming no higher than this, [15] Speech i.t.a. has been able to attain its objective without tying itself to any one particular

"accent" R.P., American, Australian, or any other - but of allowing all options as to choice of accent to remain open for a determination by the accent on the talking tapes.

An acceptable accent

Thus Speech i.t.a. is indeed suitable for the teaching of English speech with whatever accent may be desired. All that is required is that the Speech on the tapes shall be in that family of pronunciations which is desired. The accent of those whose speech is recorded on the tapes will establish the particular grapheme-to-phoneme relationships which have been determined by the speakers on that tape. The particular writing system will thus be inferable from the characters in relation to their sounds on the tapes and the speech on the tape will establish whatever phonetic relationships are intended for the learner. [16] The medium will thus remain primarily a reading system in which, while the print is standard and invariable, the grapheme-to-phoneme relationships may be varied at discretion. In other words, Speech i.t.a. functions as a writing system for teaching the particular pronunciation and accent chosen for the tapes and as a reading system from which the transition to T.O. is very easily made. [17]

Stopping another Tower of Babel

It is greatly to be hoped that the pronunciations on the tapes to be used in conjunction with the books will be chosen with discretion - that is to say, within those restricted limits which radio, television and the films maintain. Indeed, the teaching and wide use of minimally differing versions of English speech may well become a most valuable by-product from a general acceptance of Speech i.t.a. Thus Speech i.t.a. could yield an improvement even more socially valuable and important than the main achievement of teaching, the English language (in at least four of its manifestations) much more successfully and easily. It is generally agreed that English speech is becoming "Babelized" as Latin, was earlier. It is thus most important that further building of the tower should be stopped, and that those storeys of it which have been already raised should be razed to the ground - in the opposite meaning of those respective "heterographic homophones". It will be a happy day if the general acceptance of an Initial Speech Learning Medium - and a wise choice of the pronunciations recorded on the tapes - were to bring it about that the ordinary man-in-the-street of New York, Melbourne, Lagos, Singapore, Bombay and London could sit round a table communicating in, say, Jamaica, each in his own version of English speech freed from those interferences of variant pronunciations which impede functional communication and make inter-communication by speech so often irksome and even sometimes impossible. This is an aim as feasible as it is desirable, as was shown by the success of Franklin D. Roosevelt and Winston Churchill when they were able to speak, each in acceptable English, to vast English and American audiences notwithstanding the differences in their pronunciations. [18]

The proof of the pudding has been - and will continue to be - in the eating. I must therefore not anticipate the task of reporting the successes which Speech i.t.a. has enjoyed over the past 16 months in The Gambia. This task the Editor has entrusted to Mr. G. O'Halloran. It must now suffice, in paying tribute to his work in getting Speech i.t.a. tried in The Gambia, to conclude by reminding those concerned with the teaching of English that wherever the national policy of a country is to adopt English as the language of education, national progress and prosperity are the issues at stake. The success of such a policy will depend on the first year or two at school, when young children [19] will seek to learn listening, speaking, reading and writing in a new language for which our present alphabet and spellings are a stumbling block and the reverse of helpful.

Permission has been given to all who wish to employ the Initial Teaching Alphabet (including Speech i.t.a.) and l'Alphabet d'Apprentissage, without licence and without royalty, fee or restriction other than that the use must conform to the designs of each of the characters and to the established spellings with them.

Speech i.t.a. is protected by patents in Britain and a number of countries, and all three by copyright in the name of the Foundation. However, the legal position will be used only to protect the medium from "Babelization", so that those who buy materials may be assured that what they buy conforms to the common standard, and so that teachers and children may not find themselves misled into teaching and learning with a variety of media all purporting to be, but not being, what they are described to be. Moreover, publishers and printers may thereby be equally assured that there is a common standard.

All may also be assured that no variations in the alphabet or spellings, which might render what they have produced less saleable, will be initiated or tolerated by the Foundation.

Notes

- [1] "There is no evidence whatsoever for the belief that the best way to learn to read in traditional orthography is to learn to read in traditional orthography. It would appear rather that the best way to learn to read in traditional orthography is to learn to read in the initial teaching alphabet", is the conclusion from P. 235/6 from "i.t.a.: An Independent Evaluation: The Report of a Study Carried out for the Schools Council on the use of the Initial Teaching Alphabet as a Medium for Beginning Reading with Infants". F. W. Warburton and V. Southgate. 1969, W. & R. Chambers and John Murray.
- [2] It is arguable that a reading system such as T.O., which misleads the reader by its abuse of its alphabet, is even worse than one, such as Chinese, which at least gives no false alphabetic directions, because it gives none.
Misprints: are, legible
Total blanks: which, words, the, words, by, reader, the, missing, to, his, of, all, blank.
- [3] The impossibility of achieving phonetic perfection even in the narrowest of possible writing systems is well brought out in the following extract from Clause 36 of the Will of George Bernard Shaw:
"I desire my Trustee to bear in mind that the Proposed British Alphabet does not pretend to be exhaustive as it contains only sixteen vowels whereas by infinitesimal movements of the tongue countless different vowels can be produced all of them in use among speakers of English who utter the same vowels no oftener than they make the same finger prints. Nevertheless they can understand one another's speech and writing sufficiently to converse and correspond."
- [4] It used to be called "World i.t.a."
- [5] The short paragraph on page 2, shows that the additional phonetic information can be supplied with virtually no sacrifice of similarity - to i.t.a. and so to T.O.
- [6] Intonation may be also indicated, just as it is sometimes indicated when employing the International Phonetic Alphabet (I.P.A.). The space for the conventional markings is generally provided between the lines. Such space may as easily be provided when Speech i.t.a. is printed.
- [7] For instance, the i.t.a. characters *ch* and *ou*, which are so helpful in learning the literacy and oracy of "church" and "out", need to be used in French for helping the learning of two very different sounds, those of *chanson* and *ouvrier*.
- [8] Because the I.P.A. aimed to be international, it needed for example to preempt the character *j* to represent one particular sound. In choosing to maintain compatibility with that character's value in the traditional orthographies of the German and Dutch languages, it necessarily grossly breached compatibility with the traditional orthographies of the French, English and Spanish languages, where *je* greatly departs from "je", *dʒam* from "jam", and *xwan* from "Juan". As will have been seen in the specimens of English (Speech i.t.a.) [Fig1] and of French (l'Alphabet d'Apprentissage) [Fig 4], the English word *used* is spelled in Speech i.t.a. as *uexd*, not *ju:zd*, and *just* as *just*, not *dʒʌst*, and the French word *cas* as *ca*, not *ka*:

- [9] c.f. "Once upon a time" - which is not pronounced as /onky upon a timme/, which it ought to be if "on" is alphabetically /on/ and "tim" /tim/. And what about /wuh/hossel/? Few readers will recognize the sounds thereby indicated as relatable to those in /hɒz/. For instance, too, in the word "they" there is no sound which is represented normally by "t" as in /ten/, none by "h" as in /hat/, none by "e" as in /egg/, and none by "y" as in /yellow/; and if it were to be suggested that at least "th" (if not also "ey" - c.f. "eye") is a digraph and represents the sound in /with/, what about the four other uses of "th" in /shorthand/, /thin/, /Thames/ and /Southampton/, where it has four other values for that digraph, namely: /t/h/, /th/, /t/ and /th/h/?
- [10] That T.O. is eventually not a stumbling block to pronunciation is shown by Lewis Carroll's poem in "Through the looking glass". None of his hundreds of thousands of readers, who were skilled in reading in T.O., had any difficulty in correctly pronouncing the "nonsense" words which they had never before either seen in reading or heard in listening: 'Twas brillig and the slithy toves did gyre and gimble in the wabe;' etc. The reader automatically rhymes "toves" with "stoves", rather than with either "doves" or "moves".
- [11] Some 80% of words in T.O. which the learner already knows will be sufficiently close in form to their equivalents which he has read in Speech i.t.a. for comprehension of T.O. to be possible with little if any hesitation.
- [12] A technical paper has been prepared showing in relation to the passage [Fig.1] what would be the changes that could be made to Speech i.t.a. were it thought desirable to direct it to the Received Pronunciation only (as the specimen of the I.P.A.) and to represent that speech version thus exclusively. If copies are desired they may be obtained from the author at The i.t.a. Foundation.
- [13] Ordinary i.t.a. is a version of Speech i.t.a. which sufficiently meets the alternative of whether Speech i.t.a. could be made less perfectly phonetic.
- [14] The trials of Eliza Doolittle in submitting to the teaching of Professor Higgins with his 130 vowels will be well known to those who have read or seen Bernard Shaw's "Pygmalion" or attended a showing of "My Fair Lady".
- [15] The acceptance of a somewhat less perfect phonetic representation of speech does not at all prevent those who use Speech i.t.a. from attaining the highest standard of English in whatever dialect is represented to the learner auditorily. That such perfection is sometimes attained even when using T.O. indicates that it is the "ear" of the learner for very fine phonetic distinctions and the speech of the tape, and of the teacher and of others, which together produce the high quality of his listening and his speaking. However, Speech i.t.a. accompanied by tapes and a similar auditory example, are able to produce the same high quality - only more easily and quickly.
- [16] There will be more than one grapheme to only one phoneme in some cases: cf. the Lancastrian "buck" and "book", the Scottish "pull" and "pool", the American "bomb" and "balm", the Canadian "cot" and "caught", etc. This, however, is no departure from the alphabetic principle in representing phonemes - only a duplication of characters for a single phoneme - as in general is "c" or "k" in "cat" and "kitten". It is after all only in encoding - spelling - that there is importance in a one-for-one phoneme-to-grapheme relationship. In decoding, where the relationship is the different one of grapheme to phoneme, there may be more than one grapheme for a given phoneme provided, however, each grapheme represents (as it does in Speech i.t.a.) only that one phoneme.
- [17] It is interesting to reflect that a totally deaf and dumb man who could read but not lip read would approach any reading medium as a reading system and not at all as a writing system. English print to him would be as little a phonetic writing system as Chinese pictographs to speakers of any of the differing Chinese spoken languages.
- [18] What is needed is a listening system - one in which the variations in pronunciations are restricted, as they are in our reading system in which the variations are restricted, in the case of the conjunction, to five: AND, And, and, and, &.
- [19] Children at this early age are imitative to a high degree and very competent in their imitations. The ability of children in The Gambia to approximate in their speech to the speech of English children recorded on the tape has been quite noticeable and very encouraging.

[Spelling Reform Anthology § 11.3 pp165-167 in the printed version]

[Spelling Progress Bulletin Fall 1975 pp12-14 in the printed version]

3. The Drawbacks of Traditional Orthography, by Sir James Pitman, KBE*

*London, England.

*Paper to the Internat. Assoc. of Teachers of English as a Foreign Language, London, April 3, 1975.

What are these drawbacks and what are their cumulative effect upon the learner of English as a foreign language?

The first is that the accident of history has greatly confounded the English orthography with a 2,000 year-old alphabet - perhaps adequate for the Latin tongue, but lacking characters for at least 17 sounds of the English tongue - and, with a basically 600 year-old attempt at spelling some 40 sounds with only 23 letters (*c*, *q* and *x* are redundant).

We who are literate have become so conditioned to the shortcomings of the means by which what is spoken and listened to in English is thus confusingly represented, that we nearly all have found it virtually impossible to analyse - or even to appreciate the analyses of those confusions made by others.

The confusions between oracy and literacy come in four categories - two in *decoding* (reading) and one in *encoding* (writing), and one in the representation of correctly pronouncing English.

Decoding

1. The multitude of variants in virtually all the 26 letters cause us to use well over a hundred letters including multilateral forms such as TH, Th, th, etc., and over 2,000 spellings for only some 40 sounds of English.

For instance, there are three variables of *a* (A, a, *ä*); three of *b* (B, b, *β*); only one of *c*, two of *d* (D, d); three of *e* (E, e, *É*); four of *f* (F, f, *F̄*, *f̄*); and corresponding variants in the otherwise most consistent digraphs such as *ch* and *th* (CH, Ch, *Čh*), (TH, Th, *Ťh*, *Th̄*).

The effect of these ambiguities of "characters" in relation to "letters" and of the further ambiguities of "digraphs" for those 17 sounds (which lack letters in the Roman alphabet) is a cause of inescapable confusions in de-coding (reading), encoding (writing), and pronouncing (speaking) to the foreigner and even to the already English-speaking child learning literacy and extending his oracy with a comprehensible and acceptable pronunciation. [\[1\]](#)

These variations in the shapes of letters and the consequent confusions in decoding and encoding are an even worse handicap to the foreigner in his learning also of speaking, even if the literacy of his native tongue is the Latin alphabet, and of course are even worse still if the literacy to which he is used is in any of the very many alphabets which did not originate in Rome 2,000 years ago. Cannot these confusions and the handicaps they cause be eliminated? Yes, as will be developed later.

2. The second category of confusion lies in the instability of value attached to every one of such 26 "letters."

There is a total of 173 differing values in sound for only 26 letters, an average of 6.7 different sound values for each of the 26 letters. For instance, the *a* is not stable, as is the number-value of 1. Indeed we need think only of words such as: 1. *at*, 2. *fat* (*father*), 3. *hat* (*hating*), 4. *hat* (*what*), 5. *shall* (*all*), 6. *man* (*many*), 7. *postage* (*wagon*) and 8. of the mute *a* in *Isaac*. [2]

Encoding

3. The third category of confusion lies in the variety of different spellings for each of the 40 sounds of English.

For instance, there are wide variations in the spellings of the sound of *a* in *acorn*. There is a total of 42, using combinations of *a, e, f, g, h, i, o, r, t, u* and *y* - eleven different letters: some of the most common and useful words of the language-making, *save* (but *have*), *rain*, *straight*, *eight* (but *height*), *may*, *played*, *great* and *they* - vary greatly.

The task of writing is made very difficult indeed and learners are therefore inhibited from attempting to write words they can speak because they do not know how to spell them. [3]

Can anyone doubt that these three categories of confusion constitute an aggregation of the drawbacks of T.O. when used to teach the learners of literacy, or of oracy, or of both? Cannot these three causes of confusion be eliminated, at least during the learning period. Again and again, yes, yes, YES!!-as will be shown in the fourth category, namely the:

Misrepresentation of sounds

4. The lack of 17 characters specifically to represent the eleven vowel and six consonant sounds spoken in English - but not spoken in Rome 2,000 years ago - makes equivocation and misrepresentation inevitable.

There is a minimum of seventeen discrete sounds, plus the 'schwa' (about which later), which are spoken English, for which there are no letters available in the Latin alphabet. All of these may be represented without equivocation as exemplified below.

It will be noticed how these may be represented in new lower case characters (and using lower case characters exclusively eliminates the drawbacks of the first category of confusions), either by the junction the digraphs commonly used to represent them, or by borrowing from the cursive alphabet, e.g. No. 1 *a*, and No. 16 *z* in *arm*, and *azure*.

Vowels :	1.	<i>a</i> rm (18)	
	2.	<i>æ</i> roplane (42)	
	3.	<i>au</i> tumn (23)	
	4.	<i>æ</i> l (40)	
	5.	<i>toe</i> (37)	
	6.	<i>to</i> = two, too (41)	in
	7.	<i>g</i> od (11)	
	8.	<i>di</i> e (34)	
	9.	<i>ou</i> t (13)	
	10.	<i>ai</i> l (12)	
	11.	<i>du</i> e (28)	
Consonants :	12.	<i>ch</i> urch (11)	
	13.	<i>no</i> rth (7)	of
	14.	<i>no</i> rthern (3)	
	15.	<i>sh</i> ip (13)	
	16.	<i>a</i> zure (8)	
	17.	<i>lo</i> ng, longger (7)	

In the case of No. 17, *logger*, *loggest* (from *long*), the second element of the common digraph has been aligned below the x-line and reduced in size, thus obviating not only the difference of a double g in *longger*, but also the confusion over such words as *ungrate/wl*. In No. 4, not only does the eye complete the incomplete ee into ee, but regards ee and EE in *FEET* and *FEET* as akin. In Nos. 6 & 7 the eye not only completes the tops of the *o* and *o* to form the oo of *moon* and of *foot*, but also finds similarity to the cursive alphabet version *o* of the lower case *w*. This choice of *o* and *o* is of value also in the u-class of spellings, e.g. *ruby*, *true*, *rheumatism*, *fruit*, *soup*, *full*, *world*, etc. Of course the consonant sound /w/ and the longer vowels and the shorter vowels represented in i.t.a. by *o* and *o* represent as much semi-consonants as *w* represents a semi-vowel. It is impossible to pronounce quickly the word *wet* spoken with the vowel sound /*o*/ or /*o*/, without achieving the consonant sound /w/. Thus when *oet* or even *oet* are printed instead of *wet*, the forms and the sounds are more than closely enough related in sight and in hearing for diaphonic comprehension.

The representation of the schwa raises its own problems, and here again the fact that i.t.a. is a diaphonic *reading* system and not a phonetic *writing* system plays an important part in providing practicably a simple solution to an otherwise insurmountable difficulty.

Many words in any page of continuous English have variants of either strong or weak forms. Adding up the ascertained frequency in Table 4 of Dr. Godfrey *The Relativ Frequency of English Speech Sounds*, the total percentage in the language of such word pronunciations varying between their strong and weak forms is very high.

The total frequency of even the 24 most frequently recurring words in the 100,000 words in selected running text was 27.194% and of these 24 only the ego (I) is invariable in its spoken form, while all the 23 others are variable and more often unstressed than stressed, and changed in their vowels to either schwa (19.184%) or to what I have called 'schwi' (6.254%). These 23 thus recur very frequently. It would only cause semantic confusion to vary the spellings of the words *of*, *and*, *to* apparently erratically where clearly there is little, if any, confusion in diaphonically listening to the alternations of strong and weak forms.

The advantages of such a diaphonic reading system for teaching reading are clear, seeing that each reader, who knows English speech, will anyhow pronounce each word he reads in his own idiosyncratic version of his regional version of the language. The extremely delicate resources of the International Phonetic Alphabet - being a writing system - are not required for teaching reading seeing that their precision would be wasted unless the purpose were to represent a particularly determined pronunciation. This interesting contrast between a diaphonic reading system and the differing purposes of a phonetic writing system is illustrated by the following quotation from the famous Prof. Max Muller, published in the *Fortnightly Review* of April, 1876, in regard to my Grandfather's attempt to eliminate the drawbacks and confusions of T.O. as a medium for *learning* reading:

"What I like in Mr. Pitman's system of spelling is exactly what has been found fault with by others, namely, that he does not attempt to refine too much, and to express in writing those endless shades of pronunciation, which may be of the greatest interest to the student of acoustics, or phonetics, as applied to the study of living dialects, but which, for practical as well as for scientific philological purposes, must be entirely ignored. Writing was never intended to photograph spoken languages: it was meant to indicate, not to paint, sounds. Language deals in broad colours, and writing ought to follow the example of language, which, though it allows an endless variety of pronunciation, restricts itself for its own purpose, for the purpose of expressing thought in all its modifications, to a very limited number of typical vowels and consonants. Out of the large number of vowel sounds, for instance, which have been catalogued from the various English dialects, those only can be recognised as constituent elements of the language which in, and by, their difference from each other convey a difference in meaning."

In order to teach oracy, a writing system, not a reading system, is required because the purpose as in a pronouncing dictionary, is to teach exclusively a particular pronunciation - a habit of speaking those particular phonemes (,with no diaphonic variations of them) which have been spoken by the voices of those who have recorded the words on the cassettes and have thus determined the intended character-to-sound values and the rhythmic variations for what has been printed in the books, thus indicating both the changes of vowel (to the schwa or to the schwi) and the variations in stress.

A writing system is thus as desirable an approach to the teaching of oracy as it is in the editing and printing of a pronouncing dictionary for which the editor decides the particular phonemes and the particular stresses which he wishes the printer to reproduce and indicate visually. This involves a phonetic alphabet whose characters-to-phoneme relationships will be set out in the preliminary pages of the dictionary, and ought to be - but seldom if ever is - accompanied by a cassette.

No one can doubt that in teaching oracy in the English language to a foreigner it will be most helpful to indicate the incidence of the variations in stress - and consequently in vowel sound - of the otherwise homographic *the's*, *of's*, *and's*, etc.

Typography may be called in aid to obviate the drawbacks of our T.O., while still keeping the same 'spelling,' whatever the stress or vowel change. Syllables may be printed:

1. in semi-bold type, or underlined on the blackboard, to show primary stress, or
2. in ordinary type, or the absence of underlining, to show what may be called middle-stress, or
3. in much smaller type altogether to represent stresslessness and the change of vowel to the particular other vowel.

In the last case, words or syllables which lose stress and suffer a change in vowel to the schwa can be aligned centrally to the bottom of the x-line (or underlined with a downward pointing obtuse angled underscore if not so printed) and those in such words as *the*, (before a vowel), *me*, *be*, *by*, *before*, *equator*, which on losing stress suffer a change of vowel to the schwi, can be aligned centrally to the top of the x-line (or overlined with an upward pointing obtuse-angle overscore). This treatment of the i.t.a. alphabet and spellings is specially designed for teaching oracy (in parallel with literacy) and is thus called *speech i.t.a.* Such a change from a reading system to a writing system is not necessary for those already skilled in English oracy—they know when to stress the demonstrative adjective as *that* and when to speak, without stress and with the change of vowel to the schwa, the single relative pronoun *that*; and when to stress the negatively expected hypothetical *if* or to unstress it as if in a positively expected situation. For the foreigner, however, such an approach to "photographs of the spoken language," (to quote again the late Prof. Muller) and to a writing system are very helpful in learning and establishing a comprehensible standard of pronunciation, as used in the cassettes, and therefore varyingly printed in relation to them.

Speech i.t.a. was illustrated at the Jan. 4th 1974 IATEFL Conference in London. A specimen is however reproduced at the end of this paper. Reprints of that earlier paper with the title "The Importance of Medium and Motivation in the Learning of English as a Foreign Language," [4] were available to those attending the Conference, and may still be obtained from The Initial Teaching Alphabet Foundation, Reigate, Surrey, England. Its bibliography included 16 items in reference to the use of both *Speech i.t.a.* and of ordinary i.t.a. for teaching literacy and oracy. Since then Prof. D. U. Robertson, Ph.D. Assistant Professor of Education at California State Univ. and T. S. Trepper, B.A., Research Director at Murchison Street Elementary School in East Los Angeles, have published in *Reading World* most favorable results of their research with 52 Mexican-American bilingual fourth-graders. This is here added because, at any rate in America, copies of Vol. XIV, No. 2, 1974 will be readily available.

Is there anyone in the audience ready to come forward and deny that the four categories of confusion are major drawbacks in the teaching of English as a foreign language? Is there anyone to challenge the claim that the particular characters added to the alphabet to make good the absence of letters with which to represent those sounds are so conforming to a frequent representation practice in Traditional Orthography that the transition from T.O. to i.t.a. (and in the reverse direction from i.t.a. to T.O.) is immediate, effortless and - even if disturbing to deeply conditioned prejudices - to be welcomed as an initial learning medium freed from the drawbacks which the confusions of T.O. have hitherto imposed? Please refer again to the list of 17 sounds together with the 17 characters which have been designed specifically to achieve the closest possible relationship to the most frequent available spelling for that sound in our T.O. If any of those present have reservations in accepting these two propositions, I ask him to remember how wrongly the evidence of the eyes and the preconditioning of their daily observations led even the most intelligent and expert professionals of those days to reject the claims of Copernicus and Galileo that the sun did not go around the earth daily but that the earth revolved round on its axis daily.

We cannot make progress unless we are ready to think afresh - or think laterally as I understand it is now called; to recognise immovable obstructions and to go round them by another route rather than to keep trying to move them away.

Let us now at least follow the example of the ant who, at the bottom of the telegraph pole, which the preceding sections of the army had been scaling and then descending ahead of him recognised the simple alternative and went around the base of the obstruction leading his followers to the desired end, more effectively and economically.

Specimen of *Speech i. t. a.*

az every reeder will noe the internashonal fonetic alfabet is wriedly uesd as a meedium for teechi^{ng} liseni^{ng} and speeki^{ng}, but with soe græt a departuer from the forms ov tradishonal orthografty (T.O.) that teechi^{ng} ov reedi^{ng}, rieti^{ng} and particueularly ov spelli^{ng} in T.O. is grætly vijhiæted.

thus the græt advantæi ov speeçh i.t.a. is that whiel it mæ bee uesd just as effectivly as I.P.A. too teeçh liseni^{ng} and speeki^{ng}, it offers aulsœ a much mor effectiv tœol in teechi^{ng} reedi^{ng}, rieti^{ng}, and cueriusly as reserçh has establiht, eeven spelli^{ng} aulsœ.

Notes

- [1] On Feb. 28, 1975 there was published the report of the Bullock Committee (A Language for Life), a committee appointed by our Secretary of State for Education and Science "to inquire into the teaching in the schools of reading and other uses of English."

The Committee devoted three pages (82-84) to this and the next category of confusion pointing out "Variations in *letter shape* (my italics) multiply at the word level" (6.11) . . . "They increase the total quantity to be learned and add to the burdens of the slow learning child an extra dimension of difficulty that he could well do without. This difficulty is probably even more marked when the child comes to write, since he may be confused in deciding which of the various forms to set down." (6.10). They point out: "Letter outline may convey very little to the child unless it has been invested with some kind of special significance" (6.7) and that these variations "sometimes lead to teachers assuming mistakenly that there is something inherently wrong with the child if he happens to have difficulty in learning to recognize letters." (6.7).

- [2] The Bullock Committee devoted 17 more pages (84-94 and 107-112) to "the relationship between letters and sounds" (6.16) including, as an example of the dis-relationships in this second category of confusion, the spelling (of the sound usually spelled as *chemist*) as *calmbost* which they justify by precedents as follows: *candle*, *many*, *calm*, *ham*, *lamb*, *women*, *lost*, *lost*, (6.10) much as Bernard Shaw produced *ghoti* for *fish* (*enough*, *women*, *nation*) and conclude "decoding is of particular importance in the early stages of learning to read, and the complexity of English spelling patterns does appear to retard progress" (6.20) "children will tend to be confused by the complexity of the spelling patterns they encounter in the early stages." (7.23). "Encounter with such variations is inevitable." (7.23).

- [3] The Bullock Committee reported only indirectly on the great degree of confusions in this third category (encoding), but, in the course of their treatment of both of the categories of confusion in decoding, they reported a number of findings which are relevant not to decoding but to encoding. For instance: "Children tend to learn quite quickly how to spell in i.t.a. and they have ready access to almost (why almost?) every word in their spoken language. The value of this for language experience activities is obvious" (7.29); and again, "the i.t.a. pupils remained superior in T.O. . . . spelling even after five years at school, i.e. well beyond the transition stage." (7.29). They also touch on it (11-41) where they report that, of 16,000 ten-year-old children "fewer than half spelled the word 'saucer' correctly and those who wrote it incorrectly gave 209 alternative spellings."

- [4] Reprinted in *Spelling Progress Bulletin*, v. XIV, No. 1, Spr. 1974.

(*Spelling Reform Anthology §11.4 pp168-169 in the printed version*)

[*Spelling Progress Bulletin Winter 1978 pp2,3 in the printed version*]

(* indicates letters joined in ita.)

4. Why Digraphs Impede Learning, by Sir James Pitman, K. B. E.

Although this might be considered self-evident, still it does not impress itself on many people. It requires considerable cogitation. Among the many benefits of i.t.a. to the learner, we think a most important one flows from the abolition of digraphs.

Digraphs in English are of three kinds:-

1. those digraphs where both of the characters accurately, and in their sequence, represent both of the sounds of the diphthong. (Incidentally there is only one, the one dealt with below);
2. those (as *i e* in *die*) which mislead the reader because the values of the two characters and their sequence in the digraph all misrepresent the two sounds of the diphthong;
3. those (as *s h*) which mislead even further, in that not only is the value of neither character heard in the sound, but also the sound is not even a diphthong at all, but a single sound, requiring therefore but a single character.

An instance of the first kind is the diphthong which is conveyed by the i.t.a. character *oi. Even in this, the least misleading of the three cases (the diphthong sound which the two characters (o and i in their sequence accurately convey) there is much to be said against the use of a digraph, because it would seem that the learner (at least at the beginning) will find it easier to read the word *oil* as a word of two sound units (e.g. (*oil, that is (oi plus l), rather than as a word of three sound units o i l, (o plus i plus l). After all the learner hears the diphthong as a single sound, not as two (as in *oi so too in other diphthongs as *j*, *ch, *ue, *ie, etc.). The glide in a diphthong is so rapid that to appreciate that there is not one sound, but a sequence of two, requires, an act of teaching, and a not inconsiderable sophistication in learning. Moreover, the learner is too often so young that it must be wrong gratuitously to confront him with the task.

If then, there be disadvantage in even digraphs which accurately convey the constituent sounds of a digraph, how much greater disadvantage is there in those cases where the digraph is misleadingly composed, and how much greater disadvantage still where the misleading digraph represents a sound which is not even a diphthong.

The benefit to the learner of having a single unit character (e.g. *sh, *ng, *th, etc.) for what is a single unit of sound (and could never be separated as a diphthong in two sub-units of any kind) is surely most evident. In the words *mishap*, *ingoing*, *anthill*, the learner will naturally attach to the *s*, to the *h*, to the *g*, and to the *t* the respective values which he has learned and found so successful in every other such situation. To expect him exceptionally to forget all these happy experiences when he faces the digraphic words *bishop*, *ingot* and *anthem*, and to learn that these characters no longer remain what they have been, is clearly to expect a great deal. In fact, it can be confusing.

It is hard to understand how even much-respected experts, who concede that the old medium is harmful to success in learning, should question whether the new composite characters like *sh for *sh* and *ng for *ng* are really easier than the traditional digraphs." [\[1\]](#)

The word "easier" raises a number of questions. For instance, is it easier for the first learning and if so, easier for phonic learning or for look-and-say learning? Is it easier for both together? Is it easier for subsequent progress?, easier for the transition?, easier for writing (pencilmanship)?, easier for writing (spelling)?

Only in the sense of easiness for first learning (and for phonic learning only) has it been examined in this paper.

There are good grounds which could be advanced for supposing that on the other counts of potential easiness too, *sh and *ng etc. are "easier" than *sh* and *ng*, etc., or at least as easy. If that be the case, then it will require considerable optimism for any research organization to embark on the very large costs of printing in a new experimental alphabet several hundreds of copies of some 200 or 300 different books, and to envisage accepting the disturbance and costs of further comparative researches seeing that while the *a priori* case is so strong that *sh and *ng are easier (or no more difficult) on all counts than *sh* and *ng*, the only case to the contrary would appear to be the academic one that everything is open to question until it has been proved by research.

Such a questioning of what, to me at any rate, seems an elementarily obvious proposition, presumably explains itself largely by a strong emotional predisposition to continue with T.O. as a culture to be venerated and preserved, and by a revulsion against all departures from it, even as an initial learning medium. In time we will no doubt come to wonder how even specialists experienced in the reading field had become so conditioned to the sacrosanctity of the traditional medium that they could be so unaware of what has been going on under their very noses, but so emotionally committed to it as to wish to remain unaware. No one at all would presumably question whether, in a decimal numeration, it might not be preferable to have a separate numeral in figures for each of the ten concepts of quantity. No one would suppose that there could be less than ten different ciphers, and that it could be acceptable, in default of enough ciphers, to require the normal characters (say 2 and 7) to do duty, in combination, in a quite different sense (say to act as the missing 5, as well as 27 when that figure is intended).

In my view, one of the strong features in the simplicity of i.t.a. has been this policy of having at least as many characters as there are sounds to be characterized. At any rate it was a conscious and deliberate decision, and I am surprised that any should challenge it. The average classroom teacher may not be a world-famous authority on reading, but few if any teachers who have had experience in teaching with i.t.a. would demur from joining me in claiming that, *per contra*, the "composite" characters (or as I call them, the "augmented" characters) of i.t.a. must be regarded as a *highly important factor in the simplicity of the new medium*.

If all this is valid, in what circumstances, then, might it have been worth sacrificing even a little of

this learning benefit, by creating three new digraphs, in order to give a different benefit - that which makes easier the transition? Clearly an essential condition must be that the units of the digraph must truthfully (in the alphabet used and in the sequence) reflect each of the units of the diphthong. Clearly, too, there needs to be the prospect of a significant benefit in the transition. In the event, only j, *ue and *ch would appear to be worth considering on these two counts. (The possibility of eliminating *wh by using the digraph h w is rejected on the second count.) Thus it is helpful, while retaining j in jam, to differentiate the sounds of that diphthong, dʒ as in hedʒ; also while retaining *ue in d*ue to differentiate its two units of sound into yɔ; similarly while retaining *ch in *ee*ch, tautologically to differentiate it into t*ch in wit*ch, [2] and similarly while retaining *ue to differentiate it tautologically into y*ue in y*uel. Practice has shown, now over a number of years, that the learner can indeed establish these few digraphic and additional relationships for these few (3) diphthongs. The learner will no doubt have been greatly helped in the earlier stages by the simple relationships of the single j, *ch and *ue with what will have seemed to the learner in each case to have been a correspondingly single sound. Thus he will be able later to learn that dʒ and yɔ, and the tautologous t*ch and y*ue also satisfactorily represent sequences of two sounds, (which may also be accurately represented by j, *ue, *ch) in edʒ and yɔth, mat*ch and y*uel. It would seem that the extra learning involved is but a small price to pay for the extra benefit in the transition, seeing that, shall we say y in the classroom is very frequently met outside the classroom in the form you. Such easier relationships will greatly help the morale of the learner in confirming what he is learning in class is helping him to read also easily outside of the classroom.

Notes

[1] "Some educational reformers - themselves frequently teachers of considerable experience - favour an alternative type of 'rational orthography' or 'systematized notation' such as the International Phonetic Alphabet, the Modified Spelling advocated by the British Simplified Spelling Society, or the 'Regularized English' proposed by Dr. Axel Wijk. Many of the criticisms which the proposals have already elicited will suggest points deserving special attention. Are the new composite characters, like *sh for *sh* and *ng for *ng*, really easier than the traditional digraphs?"

Preface by Sir Cyril Burt to *The Initial Teaching Alphabet*. (John Downing. Pub. by Cassell, London. 5th edition, 1965)

[2] In practice, the diphthong in the sound *chuh is t*sh. Compare wh*iet *ship with wh*ie *chip.

[Spelling Reform ed Newell Tune t11.5p169]

[Spelling Progress Bulletin Winter 1978 p3]

5. Do Digraphs Impede Learning? by Godfrey Dewey, Ed. D.*

*Sec. Simpler Spelling Assoc, Lake Placid Club, N.Y.

Do digraphs impede learning in the leading languages of western Europe? The number of digraphs in their orthographies, exclusive of doubled consonants, ranges from five for Spanish or six for Italian, to 22 for Dutch, with a median of about 12 for French or 14 for German. So far as I am aware, no spelling reform movements in these countries seriously suggest the substitution of single characters (they already use diacritics - the tilde - in Spanish, the acute, grave, and circumflex accents in French, the umlaut in German), nor do difficulties on account of digraphs figure significantly in discussions of the teaching of reading. Presumably, this is because most of those digraphs represent only one phoneme, whereas in English 106 digraphs, again exclusive of doubled consonants, have a total of at least 202 pronunciations; while 115 additional combinations of more than 2 letters for one sound have a total of at least 204 pronunciations.

In English, for a phonemic notation such as World English Spelling (WES), the actual occurrence of misleading, false digraphs, such as the *th* in *anthill* is so infrequent as to be almost negligible. In my list of commonest words, only one word (*engaej*) out of 1027, occurring only 11 times out of 78,633 words, exhibits a false consonant digraph, and there are only 5 false vowel digraphs, most of them almost unpronounceable the *wrong* way. Study of longer lists, such as the Thorndike-Lorge *Teachers' Workbook*, based upon 15 million running words, indicates that all such sequences together occur less often than once in 400 running words.

As for the philosophical difficulty, or the practical difficulty, of the concept of digraphs, I submit that *ie* or *wh* or *oi*, with a ligature beneath are just as unmistakably single symbols as the *i.t.a.* symbols *ie* or *wh* or *oi* with a ligature above, and that if such a ligature be used for two weeks after the child is introduced to the symbol, he is most unlikely to be confused by the very rare occurrences of the same sequence of letters for separate sounds, which can always be clarified by using a dot as a separator, (*medi.eeval*).

One obvious advantage of digraphs over new single character symbols is eliminating the task of learning to write 20 unfamiliar characters of relatively complex form which will be abandoned in a year or so, as against gaining additional practice in writing the Roman letters, which are a life-time acquirement. Another is greater compatibility of the phonemic forms with traditional orthography (T.O.), since only two of the digraphs (*uu* and *zh*) and one trigraph (*thh*) do not occur in T.O. A third possibility, which remains to be tested experimentally, is whether the transition to T.O. may prove to be easier.

On the positive side, one great and important advantage of digraphs over new characters is the possibility of using the standard keyboard typewriter: as a teaching instrument in the very earliest grades, the great possibilities of which (even in T.O.) were demonstrated by Wood and Freeman 35 years ago; and for using the same phonemic notation as an international auxiliary means of communication by those who have learned to read and speak English as a second language, thus bypassing the considerable burden of learning to *write*, i.e., to spell T.O.

It is no answer to say that i.t.a. typewriters are available. How many such are there in use? Perhaps 5,000? How many Roman alphabet typewriters, with substantially the familiar keyboard, are there? Five million or more. And even tho you multiply i.t.a. typewriters indefinitely, the inherent and inescapable difficulty of the totally different keyboard, made necessary by 20 more lower case characters, remains as a handicap. It was this difficulty of teaching or maintaining two different sets of automatic situation-response reactions for touch typing that defeated the introduction of the vastly superior Dvorak keyboard (for T.O.) a generation ago.

Finally, successful use of a no-new-letter phonemic notation as an initial teaching medium points up much more sharply the query of many parents: why must my child go on to learn another and more complex way of writing? The answer for i.t.a. is because the necessary new characters are not familiar to the general public or readily available. The answer for WES is that as soon as the demand becomes widespread enough to be heeded, that added burden can be dropped.

The English-speaking world is enormously indebted to Sir James Pitman for already demonstrating on a world-wide scale the immense advantages of a phonemic notation as an initial teaching medium. This achievement deserves the unstinted support of educators wherever English is spoken or taught. What is needed now, without prejudice to that achievement, is controlled experimentation, preferably with no other independent variable, to determine how far the enormous values of that technique can be freed from the restrictive influence of new characters outside of the universally known and available Roman alphabet. It is true that the cost of such an experiment on an adequate scale will be substantial, but the possible values to be determined are so great, especially in facilitating continued use of such a no-new-letter phonemic notation as an international auxiliary medium of communication, that it is very much worth while.

As you probably know, some of the YMCA Indian Gides tribes study indian handicrafts, some play games and go on field trips, but our tribe has been studying American history. Let us show you what we have learned:

George Washing machine crosst the Dela where river with the Decoration of Indepants in one hand and the stachoo of Liberachy in the other. (by Chris Tune and Jack Sherin.)

This was given as a skit (accompanied by appropriate gestures) at the campout on Jan 21 at Camp Arbolata.

[Spelling Reform Anthology §11.6 pp170,171 in the printed version]
[Spelling Progress Bulletin Winter 1978 pp4,5 in the printed version]
(* indicates letters that are joined in ita.)

6. Rejoinder to Dewey's arguments, by Sir James Pitman, KBE *

*London, England.

Dear Newell:

Thank you for your offer of an opportunity to write a rejoinder to the late Godfrey Dewey's response to my article, "Why Digraphs Impede Learning," both of which you did not publish originally because of a difference of opinion as to whether the articles were appropriate timely. Now that testing has been completed, we have more evidence for both sides of the controversy.

I would greatly like to accept your offer and particularly welcome your offer to give me more space than your two inch conveniently vacant. Space is, I fear, very desirable because I need to quote from M. A. Tinker's book, "*Legibility of Print and Digits*" in his section, "Roman Versus Arabic Numerals" and to include, in support, an extract from D. K. Perry's report, "Speed and Accuracy of Reading Arabic and Roman Numerals," (*Journal of Applied Psychology*, 36, Oct. 1965, pp. 346-7).

Roman numerals for words are largely digraphic, Arabic are wholly monographic and the analogy is thus presumably apt to our question. The bibliography to Tinker's book on page 280 summarises Perry's findings as follows:

"Speed and accuracy of reading various sizes of Arabic and Roman numerals were compared. In all cases Arabic numerals were read significantly faster and more accurately than Roman numerals, and absolute and relative differences increased as the numbers got larger. For most purposes the use of Arabic rather than Roman numerals would seem desirable."

Tinker elaborated this, writing on p. 40 of his book with the cross-heading, "Roman Versus Arabic Numerals"

"It seems obvious to most people that Roman numerals are more difficult to read rapidly and accurately than Arabic. The difficulty is not one of visibility, since the Roman numerals are like capital letters and the Arabic are more like lower-case letters. Apparently the difficulty is one of interpretation due to two things: (a) the Roman numerals are relatively cumbersome and complex, viz., XXXVIII versus 38, and (b) the ordinary reader has had little experience with Roman numerals, particularly the larger ones."

Perry (88) has reported how much speed and accuracy are lost by the use of Roman numerals. Using a counterbalanced design, he obtained responses from 30 university students while they read aloud as fast and as accurately as possible numerals from 1 to 9, 10 to 49, and 50 to 99. Errors and the total number of items read in one minute were recorded.

The results follow:

*Average Number Read per Minute**

Digits	Arabic	Roman
1-9	183.9	122.5
10-49	115.7	40.3
50-99	119.4	24.4

Average Numbers Errors per Minute

Digits	Arabic	Roman
1-9	0.1	0.4
10-49	0.3	8.4
50-99	0.3	10.2

*All differences between Arabic and Roman numerals were statistically significant.

The percentage difference between the reading of the two kinds of numerals was large: 50.1, 137.5, and 349.4 for speed, and 75, 96.4, and 97.1 for errors, all in favor of the Arabic. It would seem that Arabic rather than Roman numerals should be employed for most purposes because of their greater 'legibility'."

Speed in reading is not necessarily related to ease in learning but it surely is an effective indication of complexity, and most of your readers will agree with, this. Thus Tinker's judgement given above is of itself sufficient, and surely is applicable for reading words in letters and print as for reading words in numerals and print.

But even more important surely is the factor of principle. If the rest of the characters in an alphabet are expected to be unique representations (so that any character stands for its own 'characterie' [\[1\]](#) - and only its own), surely then any spelling reform ought also to aim at unique representation. Surely any departure from this principle can be regarded only as a gratuitous sacrifice of the interest of all future beneficiaries of reform to the self-interest of those, usually elderly, who wish to preserve a past to which they have become conditioned.

Surely Godfrey Dewey was also wrong to introduce into this matter of principle the question of frequency. It is undoubtedly true that by the criteria of frequency, words such as *anthill* and *anthem* are rare but, to the learner first learning, frequency really works the other way. After all it is the frequency of sounds represented by digraphs in words, not the frequency of the words, which is really relevant. The consonant represented digraphically by the *t* and *h* in *the* is the most frequently seen digraphic consonant in the English language. If we add the percentage of frequency of the relevant seven words which appear among the 50 most frequent words in the English language (in Godfrey Dewey's wonderful publication, *The Relativ Frequency of English Speech Sounds*, Cambridge, Harvard Univ. Press, 1923, 1950) we learn that these only seven words - *the, that, with, this, they, their, there* - have a total percentage of recurrences of over 11% of the words the ordinary reader usually sees in print. (assuming that the ordinary reader does not usually see such words as those occurring less often than 11 times out of 87,358 occurrences) (see Table 4).

This is an overwhelming figure of the incidence of great complexity caused to beginners by only one of the digraphs for the sounds of English, but that is not all. The combination *th* as a digraph has a yet different value in other words and the use of that digraph in such cases adds a great further complexity. After all the Roman numeral *VI* always represents that quantity, never any other quantity also. The conjunction of *o, r, t,* and *h* (*o r t h*) occurs digraphically twice, as well as monographically once, in the representations *North, Northern* and *Shorthand*. It is true, as Godfrey

Dewey pointed out, that the use of the digraph *t* plus *h* is far less frequently used for the unvoiced sound in *anthem*, but that factor of frequency does not detract from the complexity of its use also to represent the most frequently recurring sound.

This additional ambiguity obviously compounds an already confusing complexity for the learner in mastering *th* as a digraph. At least in the learning of the meaning of the digraph *VI*, there was the simpler task of learning only *VI*, not also two other quantities, say *VIII* and *XI* as well!

Surely the great achievement of those who systematized the Roman numerals was to recognize that ten characteries needed ten characters and that if there were at least as many characters as characteries, all such complexity would be avoided. If so then the clear requirement for systematizing spelling must be to have at least as many characters as there are sounds to be characterized.

I have experienced phenomenal success in the rapid teaching of reading (*in T.O.*) to illiterate adults who, having learned to read in digraphless i.t.a. very quickly (one week in some cases), have then been able to make the transition from i.t.a. to T.O. in no more than a further week. The provision of at least forty monographs has proved beneficial in eliminating the complexity of digraphs. [\[2\]](#)

There are other albeit less important points of Godfrey's response to my article which nevertheless ought to be answered.

He suggests Herbert Wilkinson's idea of using diacritical marks under the digraphs to warn the learner that one or the other or both of the characters in W.E.S. should be regarded as carrying not their otherwise habituated value but a different one. Diacritical marks have been tried over and over again but have been unacceptable as an element in reform of spelling. The Simplified Spelling Society (U.K.) and the Simpler Spellings Association (U.S.A.) each forcefully rejected the idea. I was a member of the S.S.S. in the work of their high-powered recommendations and fully agreed to the rejection. I still do and so will very many others.

My view, which I believe was justified by the leaflet produced by *Parents' Magazine* (Feb. 1962), which showed the story of *The Little Red Hen* in World English Spelling (W.E.S.), in i.t.a. and in The New Single Sound Alphabet (Unifon) in parallel columns, demonstrated clearly that if the monographic versions of digraphs were designed, as they were, to be very similar to the statistically most frequently used digraph for that sound and yet to be unmistakably unique, the result showed that i.t.a. was clearly actually more compatible with T.O. than was W.E.,S.

It seems to me that it is words and syllables in which the spellings - whether in W.E.S., which I give here, or in i.t.a. - need to be radically altered (e.g. wuns, *aut, huuz, woz) etc.) rather than the changes in i.t.a. of *the* to *the nor in the introduction of the spellings - here given of monographs of i.t.a., *a* and *z* in *father* and *vizion*, rather than the digraphs in W.E.S., *faather* and *vizhion* which are less compatible than the spellings in i.t.a., - all of which changes inevitably make both media incompatible - in such afterall not so very frequent occasions.

After all both i.t.a. and W.E.S. look back to the same parent for their origin. Each is no more than a small departure from what the S.S.S. published and the S.S.A. accepted for a significant period in precise detail. In each case the departures from the original parent have all been to make the new medium more compatible with T.O. Many will judge that i.t.a. is the more compatible.

Finally, the admitted fact that i.t.a. cuts off the learner at the beginning from the use of the *standard key-board* typewriter is, if a handicap, a very short one. After a matter of only months, the i.t.a. learner (who is linguistically competent, and able therefore to solve by guessing from context the words which in their complex T.O. form depart from the i.t.a. form) is altogether more ready and able than the W.E.S. learner earlier to split into digraphs the monographs of i.t.a. and to substitute *zh*, *aa* and *uu* for *z*, *a*, *o* and he is home, needing only to suppress zess (reversed z) and use *z* invariably for the sound. And all the other digraphs **th*, **th*, **sh* **ee*, *o* and *o* split naturally into *th*, *sh*, *ee* and, why not, into *oo* for *o* and *o*.

Godfrey Dewey paid in his article such a fulsome and most generous compliment to me and to i.t.a. that I might well need to judge it more appropriate not to fall in with your request for a rejoinder to his response. However he and I have always in the past worked most closely together on the basis of welcoming freedom of expression of each other's views, however critical. And incidentally, I have frequently been impressed in noting how many of my views - which earlier were anathema to him - have been incorporated in the developments of what was W.E.S. in that leaflet of *Parents' Magazine* in February 1962 and W.E.S. as he finally left it.

If it were argued that all the above has a slant more towards an Initial Learning Medium (I.L.M.) than to a Spelling Reform (S.R.), the answer is a simple yes, but the greater includes the lesser.

Any reform in seeking not to sacrifice the interest of future users and illiterates to the living and the well established foibles of the illiterate must stand or fall by its success in the learning of those yet unborn. It was Godfrey Dewey, who having pointed out to me that it would be only by making reform very successful in teaching literacy to the young that reform could possibly gain general acceptance, led me to accept the aim of turning the S.S.S. proposals into an I.L.M. Moreover W.E.S. is now confessedly equally intended as an I.L.M., the difference being only that it, (not i.t.a.) has been intended also as the thin end of the wedge for Spelling Reform which will eventually supersede T.O., whereas i.t.a. was intended only as an initial learning medium.

Editor's Comments:

In addition to your very convincing arguments, there is this: the fact that Roman numerals are used much less often than Arabic is only one of several reasons why they are harder to read than Arabic. It is the effect of being more difficult - the difficult is avoided whenever something easier is available. But the most important reason why the Roman numbering system is more difficult to read is that deciphering the meaning of a large Roman number is not a straight forward-left-to-right-process. In the case of 19 (XIX), a subtraction must be made in the mind of the reader in order to get the meaning. And both an addition and a subtraction must be made in the case of 39 (XXXIX). In order for a reader to understand 1939 in Roman numerals (MCMXXXIX), it requires 4 mathematical steps, whereas in Arabic it is straight forward, left to right knowledge and reasoning, not mathematical reasoning.

The English spelling of the word "have" is misleading in two ways. The silent terminal e is not seen in the eye's left-to-right progress until after the three letters that actually indicate the word's pronunciation. That terminal e is supposed to lengthen the sound of the preceding vowel (as it does in "rave"), but in "have" it does this erroneously, thereby compounding the mistake into two wrong indications.

There is one other point that is not made clear: Herbert Wilkinson's idea of subscribing a curved line under the *th* to indicate that this digraph has a unitary sound, was only intended as an initial learning device, not for use in a permanent spelling reform. In that respect, it is in the same category as is i.t.a.

- [1] Dr. Timothy Bright, the first inventor of shorthand for the English language, entitled his booklet "*Characterie. An Art of shorte, swifte, secrete writing by Character. 1588.*" There was space and helpful suggestions for the purchaser to invent his own characters (as glyphs) and an alphabetically arranged list of words as "characteries" to be so represented, with suggestions for indicating words with the opposite meaning or synonyms for words, not included in the list of "characteries" - as for instance 'small' and 'tiny' could be indicated by a single positioned remark denoting both that the opposite meaning was to be read and the initial *s* or *t*, and 'camel' or 'deer' by marks representing *c* or *d*.
- [2] I have asked every adult illiterate I have come across to take down in Roman numerals from my dictation the five words: *eight hundred and ninety two* and to take down, not in Arabic numerals but in letters, the five words: *two hundred and ninety eight*. None so far have failed the first test and all have failed the second. I then ask them whether they can think of a more complex spelling of the sound of the vowel in 8 than *igh* or a sillier spelling for 2 than *two*. I then go on to point out that if an *h* is placed in front of the letters *eight*, it does not in fact spell "hate"!

-o0o-

A hunch is creativity trying to tell you something: Frank Capra.