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► **To cite this version:**

Christopher Gledhill. Regularity and representation in spelling: the case of Esperanto. Journal of the Simplified Spelling Society, 1994, 17 (1), pp.17-24. hal-01220375

HAL Id: hal-01220375

<https://u-paris.hal.science/hal-01220375v1>

Submitted on 27 May 2021

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Regularity and Representation in Spelling: the case of Esperanto.

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1. Introduction.

A previous paper in the *Journal of the Simplified Spelling Society*, **Pitt (J5 1987/2, p13)** briefly demonstrated Esperanto's phonetic spelling system as it compared to the phonetic system called "New Spelling". The conclusion was that Esperanto consistently represents pronunciation, and that diacritics and strict phonetic spelling do not obscure etymological factors which are important for the international appeal of Esperanto. However, there are problems of implementation of the system as a working model, since one may question the regularity of the system in use. In an attempt to widen the analysis of Esperanto's spelling problems, this study will consider the lessons that can be learned from Esperanto's long experience.

As pointed out before (**Pitt 1987, Large 1985**), groups such as the Simplified Spelling Society and the artificial (or planned) language movement have many common aspects. Both are special interest movements, with publications, enthusiasts and schools of thought. Both are concerned with introducing more rational language systems. And both attempt to reform established language practice. Hence in this study, the simplified spelling of Esperanto will be discussed in the light of practical issues arising from its creation, implementation and effectiveness.

The present author draws most examples of Esperanto and creole usage from work carried out at the Institut d'Etudes Créoles Français in Aix-en-Provence and the Universala Esperanto Asocio (UEA) central office in Rotterdam. The symbols < > indicate graphemes, / / phonemes and { } literal translations.

2.1. Esperanto's spelling system.

As outlined by **Pitt (1987)**, Esperanto uses a 28 letter roman alphabet, each letter with a single phonetic value. The pronunciation is here set out using equivalent English graphemes (capitalised) as a rough guide:

a - Act	b - Bat	c - paTS	ĉ - caTCH
d - Dam	e - nEt	f - Fact	g - Go
ĝ - Jeep	h - Help	ĥ - Scots loCH	i - kEEp
j - You	ĵ - pleaSure	k - Kit	l - Lord
m - Me	n - Nail	o - lOaf	p - Pull
r - <i>Span.</i> : padRe	s - Sat	ŝ - SHe	t - aTe
u - tOO	ŭ - voW	v - Vote	z - Zip

The letters <w, x, y> are not used. Because of Esperanto's phonetic nature combinations of letters do not form new sounds, and so although there is an initial equivalence, the letter system does differ considerably from that of many national language scripts. Before discussing the implications of this, the following example text gives an indication of what Esperanto looks like. It reports on the 1991 Esperanto conference at Bergen in *Esperanto* the UEA periodical (Dec. 1991, p217):

'Politiko' estas delonge tabua vorto en multaj esperantistaj rondoj. Tial surprizis, eĉ ŝokis, la okulfrapa ĉeesto de la Radikala Partio en Bergen. Aŭ ĉu ĝi nur celis veki nin el dormo? Renato Corsetti klarigas...

{'Politics' has long been a taboo word in many esperantist circles. That's why there was surprise, even shock, at the eye-catching presence of the Radical Party in Bergen. Or did it just aim to wake us from our sleep? Renato Corsetti explains...}

2.2 Typography: whose alphabet is better?

Besides attacking Esperanto's euro-centricity, traditional criticism of Esperanto orthography has almost exclusively concentrated on the letter set rather than actual spelling (**Crystal 1987, Large 1985, Pitt 1987**, inter alia). The accented letters, distinct from most national scripts, are widely criticised. For those who had no access to 'continental' typewriters, Zamenhof (the language's inventor) proposed adding the letter <h> as a typographical alternative to <^>. This still appears in some typed messages, but conflicts with usage in national languages. For example <ch> and <gh> for the affricates <ĉ> and <ĝ> conflict with Italian, which uses this convention to mark velar stops as in *chiaro*, *ghia* and the converse for affricates *ciò*, *già*. More importantly, such digraphs broke the phonetic principle that one sound should equal one character symbol, especially in a language which routinely forms compound words such as <pus-hava> {festering}, which could be written as <pushava>. This may be a problem of consistency rather than one of practicality. In any case, the problem has partly melted away, since most publishing tools and word processor packages cater for a larger east- and non-European market and allow non-standard accents.

Critics, often from within the movement, have also pointed out the difficulty in justifying redundant letters. The letter <ĥ>, originally used to replace <ch> in words of Graeco-Latin descent, is becoming rare, being replaced by <k> whenever possible in a kind of unofficial reform, whereby the preferred pronunciation has orthographic repercussions (cf. replacement of <ch> in <kilo>). This evolution is not recognised by the Esperanto Academy but is registered in terms of alternatives in dictionaries (**Wells, 1969**). Hence <ĥaoso> becomes <kaoso>, {chaos}, <ĥemio> becomes <kernio>, {chemistry}, and so on. However, a handful of common minimal pairs prevent this process, since replacement by <k> would create an existing word: <koro> {a heart} versus <ĥoro> {a choir}, <eko> {suddenness} versus <eĥo>, {an echo}, and <kolero> {anger} versus <ĥolero>, {cholera}. Since <h> fell into aesthetic disfavour the spelling system was obliged to change in part, leaving spelling very much up to the hesitant user and thus threatening the system's internal consistency. It shall be seen that this process is not the only cause of hesitation.

The problem of whether to avoid homographs is one of efficiency versus consistency, and this can be seen more clearly in Esperanto's word-stock and in the etymological problems it has faced.

2.3. Etymology: whose words are recognisable?

It can be seen in the example text that Esperanto's spelling system is a phonetic amalgam bringing together the diverse spelling traditions of major European languages, and this fact itself accounts for a great many problems in devising one unique phonetic spelling system from a language with diverse roots.

On the one hand, there are some sound-symbol relationships that are common to many major western European languages (hitherto referred to as European) thanks to the historic development of the roman alphabet. On the other hand, languages have adopted the roman alphabet at different stages and with diverse phonetic backgrounds. What this means in practice is that for any 'borrowing language', which Esperanto largely is, lexical items from all source-languages need to be fitted, sometimes uncomfortably, into a necessarily restricted sound-symbol system.

For Esperanto the methods and degrees of transition have varied, although the overriding aim has been to use symbols and sounds that are common to at least some of the languages of the target group of speakers. The language's inventor, Dr Zamenhof, himself knew several Slavic, Germanic and Romance languages as well as Hebrew (he was a late-comer to English), and it has been pointed out (**Large 1985, Don Lord 1989**) that he attempted a shrewd policy of 'language marketing' in order to target well-educated, polyglot readers from central Europe. To a certain extent, Zamenhof succeeded, although as the following section shows, the task of a watertight a posteriori system is impossible.

Esperanto usually attempts to take on international words as close to the original spelling and pronunciation as the orthography will allow. Where there are several versions this assimilation is achieved by slightly altering a word to create a 'neutral' form, taking care to keep the number of syllables or to avoid homographs. So from a common core of words derived from Latin <ordo> (French *ordre*, Italian *ordine*, Spanish *orden*, Portuguese *ordem*, German *Orden/Ordnung*, English *order*, Russian */orden/*) Esperanto forms <ordeno>, and since the root has two main senses, as can be seen in the derivations, a second word is chosen to convey the second sense <ordo> {arrangement}. Where a third meaning has evolved in some languages, Esperanto adopts a third variant, <ordoni> {to order, command}. Where the choice of consonants and vowels is not so clear, Zamenhof selected a third median choice, as in <lingvo> from the Latin <lingua> (*langue, lingua, lengua, língua, language*). Here also, Zamenhof chose to add the word <lango> {tongue}. In other cases, common words are chosen, not necessarily from Latin, and a neutral form is chosen, eliminating double letters and imposing the Esperanto writing system. In <bufedo>, derived from (French, Italian Spanish English *buffet*, Portuguese *bufete*, German *Büfett*, and Russian */bufet/*), the possible form <bufeo> from the most common pronunciation is avoided, and <bufeto> is avoided since this would cause homography with the word <bufo> {cf. Latin: a toad} and its Esperanto derivative <bufeto> {a small toad}.

One of the attractions of Esperanto is that the language's inventor, Zamenhof, and subsequent leading writers and lexicographers (Golden, Waringhein, Wells) in the Esperanto movement have attempted to maintain a principle of avoidance of homophones and homographs in the language, hence the creation of 'gemellates' (<ĝemelaj vortoj>, Bastien: vi), where the root (or roots if these diverge in different languages) which the Esperanto word is derived from has several senses and where Esperanto represents each sense orthographically, such as <tablo> {table}, <tabulo> {tablet, board}, <tabelo> {a written table} and <tavolo> {a flat thin surface, 'water table'}, all ultimately from Latin <tabula>. In the table below, the representation of these different senses in the main European languages shows that languages have a varied representation of concepts, sometimes maintaining or mutating the Latin (or other original) forms, sometimes relying on the same forms and sometimes using forms of a different etymology (only English examples of this are given in the column *Senses*, and related words where the meaning is slightly different are placed in parentheses):

Senses	'table'	'panel, board'	'written table'	'flat, thin surface'
<i>Latin</i>		tabula		
Esperanto	tablo	tabulo	tabelo	tavolo
<i>French</i>	table	(tablette)	table	(table)
<i>Italian</i>	tavola	tavola	tavola	(tavola)
<i>Spanish</i>		tabla	tabla	(tabla)
<i>Portuguese</i>	tábula	tábua	tabela	(tabloeiro)
<i>German</i>	Tafel	(Tablett)	Tabelle	
<i>English</i>	table	(tablet)	table	

This avoidance of homographs and studious search for terms which will be unambiguous accounts for many of the slight changes in orthography between Esperanto and its donor languages, and also accounts for a sizeable semantic mismatch of <falsaj amikoj> {false friends} where the language has a different conceptual coverage, yet uses terms which are similar in form to those of the donor languages.

However, this creates another problem. One of the original claims for Esperanto was that since it contained common 'International' words the lexicon would be easier to memorise. 'International' words include items such as cultural internationalisms: <futbalo, taksio, teatro, radio, telefono, programo, sanviĉo, bifstekoj> and many academic, scientific, technical or abstract lexical items that have come from Latin, Greek and French: <politiko, sistemo, renesanco, biologio, teatro...> are almost unchanged in many of the world's languages. As mentioned above, there is a marketing value of such a choice in order to convince potential Esperantists and make life easier for the most likely users (educated Western Europeans, at least).

However, many common lexical words have been chosen at random and are consequently not so transparent or 'international' as the Graeco-Latin scientific and abstract items. In general fields such as animals (<birdo> {bird}), or tools (<ŝraŭbo> {screw}) or common objects (<bastono> {stick}) the choice tends to be towards items that have spellings which do not clash with other Graeco-Latin terms. This may be why <birdo> was chosen instead of <avio> (too close to <avo> {grandfather}), although there is no evidence of such a systematic approach. Also, large amounts of textual or 'grammatical' lexis in Esperanto are incomprehensible for non-initiate Europeans and even more so for non-Europeans. Esperanto has been criticised for this, although grammatical terms in many languages tend to be less transparent, and therefore Esperanto is sometimes no less opaque than other languages.

Some words in Esperanto are the same as their originals, for instance, in the example text, I can spot <nur> {only} (German), <en> {in}, <de> {of} and <la> {the} (French and Spanish). Similarly, in the example text there are many words derived from European roots that are recognisable, but altered by the phonetic system and the use of word-class endings for adjectives and nouns: <politiko, radikala, partio, dormo>, or altered by other elements of the morphological system <surprizis> {surprised}, <estas> {is, are}, or a combination of the two: <multaj> {many}, <klarigas> {makes clear}. Other words are more obscured by phonetic or morphological conversion, <ŝokis> {shocked} <veki> {to wake} <tabua> {taboo} in English, <aŭ> {or}, <okulo> {eye} from Latin and <celis> {to aim} from <zielen> in German, Russian /celit'/ (**Bastien, 1950**) or /telos/ in Greek (cf. 'teleology').

In the sense that irregularity is inconsistent, one could criticise Esperanto for spoiling its own 'internationality' by such processes. Certainly, phoneticisation, morphological innovation and regularisation do not represent universal characteristics of the languages Esperanto attempts to bring together, although Esperanto in itself enjoys a very high morphological consistency.

The members of the Terminologia Esperanto-Centro adapt and publish all new vocabulary, after the approval of the independent Akademio de Esperanto, whose role is to protect the level of Esperanto use and check the evolution of the language, especially in publications (**Lapenna, p664**). New terminology is not immediately officialised. Here, 'officialised' implies that the lexical item is published in the Plena Ilustrita Vortaro (PIV) {Complete Illustrated Dictionary}. Such is the case of the Esperanto word for 'computer', which varies between <komputero> (international form), <komputilo> {computing-tool} and <komputatoro> (resembling the recent Latin <computatorium>, not to be confused with the Latin <computatorium> {counting tool}), until the 1987 edition of PIV included <komputilo> (**Duc Goninaz, 1988 p90**). According to Duc Goninaz it appears that the regular Esperanto version, formed by the internal rules of word-formation, is generally more popular than unclear phoneticised international terms (Duc Goninaz, p91).

As mentioned above, the methods used to provide a 'neutral' term often follow the natural evolution of sounds of words as they were exchanged between languages. Bastien (xii-xvi) catalogues 18 major phonetic changes which took place between Esperanto's donor languages, of which these are the main examples (taken from Latin, French, Italian, Spanish, Portuguese, German, English, Russian):

Labials /b, v, p, f/ are interchangeable: Esperanto <fosto> German <Pfoſten>, {post}.

Dentals /d, t, s, z, th/ are also interchangeable: Esperanto <tago, dento> English <day, tooth>.

Esperanto <k> often etymologically replaces <ch>, <sh> and <esh>: <kateno>, <ĉaĥne, chain>.

The letters <es, as> and <e, a> are interchangeable in Romance languages: <skalo> from <escalier, escala, scale>, <emajlo> from <émail, smalto, esmalte, enamel>, <tasko> from <tâche, task> etc.

The letters <l, r> are often interchangeable: <sabro> from <sciabolo, sable, sabre, Säbel>.

The letter <u> is in Romance languages often interchangeable with <l>: <sau&co> <salsa, sauce>.

Esperanto systematically replaces <qu> and <gu> by <kv (akvo)> and <gv (gvidi)>.

Italian plosives /b,p,g,k/ disappear before consonants, <flegmo> <flemma, phlegm>, <l> disappears after consonants <blanka> <bianco, blank>...

Esperanto may therefore elect to avoid phonetic and orthographic innovations introduced by each individual language, electing either to select a common version which eliminates the chances of language-specific irregularities, to go back to

the etymology which often reveals a common form, or to elect one candidate, making sure that its form is relatively simple and does not clash with homographs. There are many exceptions to this, and for the most part the choice has been assumed to be of a personal aesthetic nature. However, some examples of these general principles may be set out in a flow chart:

Either: *The appeal to internationalism.*

1a. Choose the most common (European) form: <rifo> from <récif, arrecife, recife, Riff, reef, rif>

1b. Avoid homographs: <magazeno> {shop} <magazino> {magazine}

1c. Choose an intermediate common form: <zibelo> from <zibeline, zibellino, cebellina, zebelina, Zobel, sable, sobol'>

1d. Avoid orthographic (clusters), phonetic (difficult diphthongs) and morphological interference (endings): Phonetic <rendevuo> {rendez-vous}, <enui> from <ennuyer, annoiarsi, enojo, annoy>.

Or: *The appeal to etymology.*

2a. Choose the Latin form: (<persiko> <persicum> {peach}).

2b. Avoid homographs: <rado> {wheel} instead of Latin <rota> {Esp: rout}.

2c. Choose an intermediate Latin form: <reĝo> {king} not from <rex> but from Latin derivatives in many languages in <reg-> {regal, royal} and <reĝo> instead of <rego> {ruling, control}.

2d. Avoid clusters, orthographic/morphological interference: All Esperanto words in <-cio>: <situacio> from <situation, situazione, situação, situación, situacia>.

Or: *The appeal to simplicity.*

3a. Choose a form from another language: <birdo> opposed to <oiseau, ave, uccello, Vogel>.

3b. Avoid homographs: <cento> {a cent} opposed to <cento> {a hundred of...}.

3c. Choose an intermediate form: <svingi> <Schwingen, to swing>.

3d. Avoid clusters, orthographic/morphological interference: <rusto> from <rouille, ruggine, Rost, rust>.

As noted, exceptions to this abound. Why, for example, should <emajlo> have been selected from the choice of <smalto, esmalte, émail, enamel, emal'> when many Latinate spellings in <e, es> are replaced with <s>? The answer, according to many Esperantists is that the writers of the major bilingual dictionaries (Waringhein in particular) favoured French since the French movement was very much the motor of publishing in the first fifty years after the movement's début in 1887. The first conferences were in Boulogne, and as many as half of the early movement's members were French. Also, the French based SAT (the World Association for Neutrality) printed the most influential monolingual dictionary in 1934, the Plena Vortaro of which PIV is a more recent and greater extension, under the guidance of Frenchmen such as Waringhien. This step has proved to be of influence ever since, and is mirrored in the influence of the first dictionaries for creole languages (**Chaudenson, 1989**).

2.4. Phonetics: does the alphabet reflect the language?

The Esperanto use of near-phonetic symbols to replace variants, such as <k> for /k/ spelt variously in European languages <c, k, qu-, ch->, as in <cat, Katze, quatre, chiaro>, is a common replacement in many English and French creole orthographies. But Esperanto has to cover a variety of languages. Replacing several letters for one sound (di- or trigraphs) such as English <sh>, German <sch>, Dutch <sj, -sch>, French <ch>, Italian <sci, sce> by <ŝ> is a convenient method of conversion to a unified system. But some solutions are problematic, since there is no strong candidate. The sounds of the Esperanto letters <j, ĵ, g, ĝ> are often represented by each other or by <y> in other roman scripts and are therefore confused. Pronunciation of the Esperanto letter <c> also causes hesitation for anglophone learners, especially in clusters such as <scias> /stsias/ {knows}, as do other misleadingly familiar letters used for different sounds in other roman alphabets. At the UEA office, for example, Esperantists would on occasion write 'africo' instead of 'afriko' if they had been working in other languages.

An often unconsidered problem is the strict sound-symbol relationship that Esperanto attempts to maintain in spelling. This principle has been used to defend the use of both <u> and <ŭ>. In fact, <ŭ> is only commonly found in three diphthongs:

1. <aŭ> /aw/ as in <baldaŭ> {soon}

2. <eŭ> /ew/ as in <Eŭropo>

3. <oŭ> /ow/ in the one-off <poŭpo> {a ship's poop}

and in the word <ŭato> {watt} and in some exclamations (Julius Caesar shouts <aŭ!> in *Asteriks la Gaŭlo*, Tintin's dog barks <ŭa!>). Although <aŭ> or <eŭ> could be replaced by <au> and <eu>, especially medially, thus giving <autoro> and <Europo>, it is felt that replacement of the word-final <ŭ> as in <baldaŭ> would be unacceptable, not only because final-position <-u> is the imperative form of verbs but because <ŭ> is still felt to be distinguishable phonetically as a semi-vowel and can be opposed to such non-diphthongs as in the word <balau> {brush up!}.

But a phonographic spelling system cannot exactly represent sound-changes according to phonetic context, indeed, it would then be a true 'phonetic' alphabet. In the following, the sound /k/ has different allophones according to surrounding sounds (**Wells 1975**)

<kiso> /-k+iso/ {kiss}
<kaso> /-kaso/ {cash-box}
<kuzo> /-kuzo/ {cousin}

This does not cause a significant problem, until one considers that Esperanto is an agglutinative language, where the context of sounds may be changed by juxtaposition of lexemes, a regular feature of the Esperanto's lexical system. As **Wells** (p17) notes, since there is velarisation of /n/ before voiced consonants as in <banko> /ban^{ko}/, disambiguation of the following homographs (one a single word, another a compound word) is only possible by pronunciation:

langusto /langusto/ {spiny lobster}.
langusto /lan^gusto/ from lan-gusto {a taste for wool}.

Some Esperantists dispute this, pointing to the fact that <lan-gusto> is usually pronounced /laNgusto/ and that similarly <banko> is pronounced /baNko/ (**Lord 1993**), although they do not deny that Esperantists have recourse to the glottal stop in conscious attempts to disambiguate morphemic boundaries in such words, or to clarify repeated vowels and consonants caused by agglutination. Sometimes compounds of two root words, or a morphological affix and a root word, will contain repeated vowels, a feature avoided in Esperanto's basic lexical stock. Lord points to possible pronunciations of <heroo> {a hero} as /hero'o/ or <treege> {very much} as /tre'ege/ instead of an extended /ē/ as in the Dutch <moerbeek>. Other Esperantists have attempted to teach a more 'phonetic' pronunciation, such that <banko> would be pronounced /ban.ko/, where the /n/ is an alveolar stop (Williams, 1986), although this view is far from widespread.

Despite the efforts Esperanto-dictionaries make to avoid homographs, many common and impromptu compound words create such ambiguity as <larĝemo> or <larĝ-emo> {tendency to be wide}, and <larĝemo> or <lar-ĝemo> {sea-gull's cry} which give flavour to Esperanto poetry and casual conversation (for discussion cf. **Gregor 1965**). Later usage established the hyphen <-> to distinguish unfamiliar compounds and to represent the (optional) glottal stop which would disambiguate <langusto>, although the glottal stop is difficult to articulate in morphological boundaries where there is a vowel. The classic case is the word for cassette <kaseto> which clashes with <kas-eto> {a small cash-box}. Some speakers adopt the term <kasedo> specifically for 'audio cassette' although not all the dictionaries agree with this usage. Other common cases remain unresolved, and despite the rules, in the written language Esperantists use no hyphens for affixes, and very few for compound words, allowing context to disambiguate combinations.

An original feature of Esperanto is that word class markers are regularly used to distinguish lexical words (as opposed to functional words) such as <-o> {noun}, <-a> {adjective}, <-e> {lexical adverb}, <-i> {finite verb}. These are treated as morphemes, minimum meaningful units usually existing as an affix, and the separation of such morphemes as well as compound word boundaries by <'> was Zamenhof's system used in the first Esperanto books (<Internaci'a Lingvo de Doktor'o Esper'ant'o, 1887>) with the aim of distinguishing morphemes for learners. This would distinguish <larĝ'emo> and <larĝemo>, but the system is no longer in use, even in teaching materials. Another way to avoid the problem may be to include the original word-class morpheme in the compound word, thus creating the forms <larĝa'emo> or <laro'ĝemo>. Strictly speaking only the noun ending <-o> can be inserted between two roots within compounds and <larĝa'emo> would be treated as two words {wide tendency} rather than as one <larĝemo> {tendency to be wide}. Esperanto's grammatical rules indicate that <-o-> may be inserted for reasons of euphony, where the root may be juxtaposed to letters which would change the meaning, and for personal preference, so <birdonesto> {a bird's nest} is preferred over <birdnesto>. But since most compounds are original creations of the speakers and writers, expressing often new or unconventional concepts, the word-class of certain elements will be undecided. As a rule, such endings do change the meaning. For instance, <finmanĝi> {to eat up} consisting of the three morphemes {end-eat-finite} exists rather than <finmanĝi> or <finomanĝi> with their own possible interpretations {to eat at the end} and {to eat the end}. This insertion is not possible with compound forms using functional words or common affixes, eg <mallarĝa> {'opposite-wide', narrow}.

In addition such compound words create digraphs (groups of letters indicating one sound in some national languages) such as <-sh->, <-th->, <-gn-> and double letters such as <ll> or <cc>, which may cause assimilation or hesitation in pronunciation in a language where all the root words are kept as free as possible from difficult consonant clusters. For example, <mal-> {opposite} creates <mallonga> {short} where the /l/ sounds geminate like the <t> in Italian <notte>.

Since sounds such as /ŋ/ do not distinguish minimal pairs in most European languages, the convention has been carried over to Esperanto and a letter is not felt to be needed. Sound assimilation is not enough to warrant a new phoneme, especially when /ŋ/ is only a phoneme between compound word boundaries where alternative distinguishing features (such as deliberate glottal stops) exist. Conversely, where common minimal pairs do exist in European languages, Esperanto often reflects them in the spelling system. Indeed, most criticism of Esperanto (**Large, Crystal**) comes from those who see problems of sound confusion for speakers who do not differentiate phonetic characteristics such as voice. For instance, although they do recognise voice, Dutch speakers have difficulty with <s/z> and <ĵ, ĝ>, Chinese have problems with these and with <t, d> and others. Compare this to Mauritian creole where /i/ replaces the French sound /y/ as in <rue>, causing speakers to overcorrect in French and pronounce written forms such as <stylo> as if it were <stulo> (**Chaudenson, 1989**). Further examples of related problems are discussed in the section on transliteration below.

The lesson for systems that aim to regularise the sound-symbol relationship in a particular language, is that such correspondences would be compromised by usage outside the system, that is, from the source languages of terminology and from the languages of first speakers. Since Esperanto's original lexicon is derivative, and Esperanto is largely learnt as a second-language, the writing system evidences tensions which often conflict with the principles of:

1. universality (such as the adoption of novel letters such as <ĵ>, or the preference of one symbol over other competing symbols in other systems such as <j>) and
2. absolute phoneticity (as in the existence of certain compromises such as the maintenance of <ŭ>, non-representation of non-European minimal pairs such as transliterated foreign sounds, or sounds occurring within the system such as /n,

ŋ/, geminates and glottal stops).

2.5. Transliteration: the problem of external influence.

Esperanto has been prone to both linguistic and political tampering. Although no reform of the entire system has taken place, there are several schools of radical reform, some wanting either to rationalise or 'deuropeanise' the language. Writing about the transliteration of Russian using Esperanto's writing system, **Bastien (1950, iii)** decides to represent soft endings by an apostrophe <sol'> {salt}, <dremat'> {to snooze}, not to represent the various phonetic values of <e, i, g> in Russian, and to represent the spelling rather than the sounds because of regional variation in pronunciation. Although pronunciation will not be possible from the finished transliteration (the various pronunciations of <o> and <v> depending on position would be unrepresented), the Russian reader should still be able to read the transliterated text, which was Bastien's purpose in the case of his etymological lexicon.

To give another example of transliteration, the Chinese Esperantist monthly magazine *El popolo ĉinio* {from the People's Republic of China} has been experimenting with an Esperanto version of Pinyin, the standard roman alphabet of China. The Pinyin graphemes <zh, ch, sh, r> are thus transliterated <ĵ, ĉ, ĉ, ŭ> respectively and differentiated from the Pinyin <j, q, x, ŭ> by <ĝj, ĉj, ŝj, ju> (**Lord, 1993**). The problem of non-standard forms, and multiplicity of systems available (Old Pinyin, New Pinyin, Esperanto, Hong Kong English...) becomes evident. In one book reviewed by Lord, the author referred to the martial arts term <Qi> whereas the translator did not distinguish between <Qi>, <ĉji> the Esperanto transliteration, and <ĉi> the older transliteration of <Chi> (where <ĉi> means {this-} in Esperanto). Lord also notes that when *El popola ĉinio* started to print Chinese names in standard Pinyin, a French Esperantist wrote to complain of their use of the 'English' alphabet. Similar confusion has been evidenced in the discussion on etymology.

Apart from the neologisms and lexical borrowing discussed earlier, there is particular controversy over whether to transliterate place names and personal names, or whether to leave them in the original orthography. The 'Analiza Skolo' led by Richard Schultz (he writes his name <Rikardo ŝulco>) attempts to eradicate what it calls 'illogical elements' of the language, including using 'foreign' spelling. One of their more colourful reforms is to transliterate all place-names not only by sounds such as <Dojĉlando> instead of <Germanio>, but also by meaning. So 'Porkvadejo' would be 'Schweinfurt' and 'Babil-ŝinko' would mean 'Chatham' (**Bermano 1990**). In a letter to the editor of *Esperanto* (Feb.1990, p149) a reader complains of the spelling of <Choutoff> (presumably from the Russian /S^utof/) in the obituary column [my translation]:

...Esperanto is a logical language. It has got to have absolutely phonetic spelling. Mr S^utov was a Jewish Russian... So one should write his name like this: ŝUTOV. Why did you spell it in French?

Thus according to some Esperantists, a phonetic transliteration into Esperanto is essential. Another letter (Apr. 1990 p81) pleads a slightly different course of action, that a supposedly international language should respect national forms, and even attempt to represent non-roman scripts:

...Respect for other cultures requires respect for their particularities, and writing is one of these. If Esperantists start to do away with these particularities, they're acting like dictators...

In fact many proper nouns were Esperantised before Schultz's proposal, especially for well-known capitals such as <Parizo> {Paris}, for towns where UEA congresses take place <Bergeno, Vieno> and famous people <Ŝekspiro>. The advantage is that there would be standard if not phonetic transliteration of non-roman writing systems and a standard pronunciation. This occurs in the national languages, for example the French <Londres> or Italian <Londra> instead of <London>. Also, transliteration of names and places means that they can take the accusative case and can form regularly derived words <Manĉestrano> {a Mancunian}.

Esperantists such as **Bernard Golden (1990)** have pointed out that this would mean introducing the same problems for proper nouns already experienced in the common acquisition of international lexis. There are also problems of consistency, such as French <Kebeko> for Québec, but <San-Kvento> for Saint-Quentin. Schultz proposes <ĵeŝovo> for the Polish <Rzeszów>, not a true representation of the sounds, and Golden claims that reforms such as <Ĝonzo> for Johnston are 'pidginesque' (p81). Interestingly, Schultz often tries to assimilate the spelling, rather than the pronunciation, as his treatment of French place names with <oi, oa> /wa/ shows: <Loire, Loiro>, <Loisel, Loazelo>, <Poitiers, Pŭatĵero>, <Blois, Blezo> and <Troyes, Trojezo> (Golden p81). Here large inconsistencies arise from the intent to represent spelling at the same time as representing sound, a rare combination.

In short, the rationalism of 'phoneticisation', of a system which would create neutral consistent forms, such as Zamenhof's <Johano> (for Johannus, John, Juan, or Jan), has fallen foul of practical needs of definitive and temporary borrowing, and has brought into question the problems of etymological and cultural representation.

3. Conclusion.

The lesson for spelling reform from planned languages such as Esperanto has been that the *a priori* lack of prescribed structure enhances the sensitivity of the system to phonetic evolution and to changes in orthographic fashion, leading to a compromise of the internal consistency of the system. For English, which lacks diacritics but has serious problems with vowel representation, the desirability of phoneticisation is questionable. English has the possibility of regularising vowel symbolisation as in the Initial Teaching Alphabet or New Spelling. But a disadvantage is that the new symbols, such as the Esperanto symbol <ĵ>, would be unidentifiable, or <c> unpronounceable to the uninitiated, and the problem would be compounded by the number of vowel nuances the system would be required to make for English. The ITA takes on this problem by using similar characters, but then the problem of typography, the most often cited disadvantage of Esperanto, would spoil the system's selling points. A language designed to have five vowels like Esperanto is easier to represent phonetically than creole or English, and Esperanto has the advantage that its standard pronunciation, while suffering some erosion (the loss of <ĥ>), has stabilised around a writing system with a high degree of phonographic consistency, while in English it has clearly not.

The institutional lesson is that, in the case of Esperanto, a completely consistent system is difficult to maintain if links are to be renewed constantly with other languages, as represented by esperantists' arguments about transliteration and current thinking on integrating Asian and African concepts. In the case of creole, to take an example from the wider field of language planning, it can be shown that even in a limited and easily controlled area, where conditions are conducive to reform, the decision depends on political stability and on overturning the established language.

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Acknowledgement:

The author would like to thank **Don Lord**, lecturer in Esperanto at Liverpool University, for his comments and assistance.