The Phonological Relevance of Spelling Pronunciation

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Although commonly viewed as an isolated, haphazard, and hit-or-miss, chancy affair, spelling-pronunciation is in fact capable of patterning and may yield profound phonological effects in at least two ways. It may induce the restructuring of the underlying form of morphemes within an orthographic paradigm, and thus trigger a redistribution of functional loads in the phonemic system; this often happens through a "reversal" of historical changes that are no longer operative. Spelling-pronunciation may also repeatedly block (and hence weaken) synchronic phonological rules, thus often resulting in the phonetic surfacing of underlying or near-underlying phonemic forms; in this way it not only slows down phonological change, but may in the long run alter the phonetic character of a language. Although it commonly obliterates etymological distinctions, as a mechanism of iconicity spelling-pronunciation promotes spelling-sound isomorphism and thus tends to reduce purposeless variety in language. Widespread literacy has rendered the influence of the orthography on the phonology a significant external variable which linguistic description can no longer ignore.

Spelling pronunciation (henceforth SPP) is one side of the relation between orthographic form and phonetic form (cf. "pronunciation spelling," e.g., *thru, tho, nite;* or "eye-dialect," e.g., *enuff, gotcha*), a relation motivated by the tendency in language toward "iconicity" (Anttila 43), i.e., isomorphism (in this case) between letter and sound. Thus SPP fulfills the same function at one end of this relation as spelling reform could accomplish at the other. Insofar as iconicity is the driving force behind analogical processes, SPP is itself a form of analogy (Householder 69, Anttila 90), and as such it has a regularizing effect on spelling-sound correspondence; it comes about—generally in the absence of a strong oral tradition for a word—when "people say (or think) that the word ought to be pronounced in such-and-such a way, because 'that's the way it's spelt'" (Barber 69). Although in modern "alphabetic" languages in general and in English in particular SPP is wide-

spread (e.g., the standard pronunciation of a surprising number of common English words was originally spps) and in recent times has become increasingly so, it is commonly considered a rather haphazard and sporadic event, a "hit-or-miss, chancy affair" (Thomas 10), inherently devoid of the sort of regularity attributed to phonetic change. Unlike other "spontaneous" changes that occur by phonemes rather than by allophones (Lehmann 166), however, spp typically fails to be granted linguistic legitimacy; and on the social side, its use is often highly stigmatizing. It has been alluded to by pejorative terms such as "pedantic," "grotesque," a form of "schoolmastering" and of a "pseudo-cultured or hyper-urban style," of "overcorrection," "hypercorrection," and a "simple garden-variety blunder." According to Lambert, spps "go above and beyond the standards of normal linguistic decency," for they are a "conspicuously aggressive" and "intimidating form of snobbery [which] few people feel prepared to withstand" (81). Even Bolinger in what is an otherwise useful classification dis-tinguishes among influences of spp which he calls "conservative," "reactionary," and "subversive" (402). And linguists often take pains to make clear that their proposed analyses are valid without an appeal to spp (Kazazis 1969, Nessly 1973).

This dismal view of both the social appropriateness and the linguistic relevance of spp is in part an inevitable consequence of the unduly low esteem in which linguists (unlike ordinary speakers) have held the conventional orthography as a representa-tion of the spoken language, because of the latter's "primacy" as a coding medium. It seems that arguments based on the obvious phylogenetic and ontogenetic implicational priority of the spoken over the written channel lose some of their force and relevance when applied to adult language in societies enjoying universal or near-universal literacy, where the functional load of the graphic-visual mode in normal communication may equal (and even sur-pass for some individuals) that of the phonetic channel, and where the ultimate extent of graphic interference in linguistic coding cannot as yet even be envisioned. Not the least importantly, by being associated with learning and hence knowledge, writing has since its inception enjoyed popular prestige and authority, and has served as a model for highly-valued linguistic form. The influence

of writing on the spoken language is a "hazard of literate socie-
ties," and although "universal literacy is too recent a phenomenon
to reveal long-range effects" (Bolinger 401), its impact—especially
through the mechanism of SPP—on not only performance but on
some aspects of the phonological system itself in "alphabetic"
languages is no longer just a matter of conjecture. Especially with
the recent recognition by linguists of the need to place grammar
in its socio-cultural context and to study the effects of external
variables such as the speakers' regional background, educational
level, socio-economic status, age, sex, ethnicity, and style on
linguistic behavior (cf. Weinreich, Labov, and Herzog 1968;
Wolfram and Fasold 1974), the exclusion of the potential influence
of visual exposure to language as a similar significant variable
cannot be justified.

I would like to cite some evidence in this paper for the systemic
character of orthographic influence via SPP: sound change—that
is, phonologically relevant change—occurs when the balance or
the normal operation of a phonological system has been disrupted
(Lehmann 159). SPP can trigger precisely such disruption. First of
all, there is ample historical data to show that SPP may induce the
remodeling of the (underlying) phonemic form of a large number
of morphemes, and thus lead to a redistribution of functional
loads in the phonemic system; in many cases the remodeling
process shows a temporal patterning that is reminiscent of the
diffusion of more regular changes in the phonology. This process
is usually initiated by the introduction of new spelling-pronounced
forms as additional phonetic variants for morphemes; these
increase the repertoire of phono-stylistic choices available to
speakers and may function as significant socially diagnostic phono-
logical features. Perhaps most importantly, SPP can have the effect
of at least partially "reversing" some historical processes: more
precisely, though not equivalently, it can block the application of
phonological rules, hence in time weaken them and perhaps cause
their eventual loss, thus often resulting in the resurfacing of
phonemic shapes in which not only an earlier, historical structure,
but the synchronic underlying form is more explicit (cf. Kerek
1974a). In this way, SPP not only contributes to a slowing down of
linguistic change (which is one likely effect of literacy: cf. Zengel

1968, Samuels 6, R. Bailey 388, Bolinger 401), but also in the course of time, *ceteris paribus*, may substantially alter the phonetic character of a language.

Restructuring
The inducing effect of the iconic principle of "one graphic form-one phonetic form" in the historical reshaping of morphemes in some languages has been indirectly but extensively demonstrated (Buben 1935, Buchmann 1940), and may be illustrated here by cases in English where the graphic unit has acquired through SPP an invariant or near-invariant phonetic value, or is in the process of doing so. Take, for example, the iconic relation *th* : | θ | (or | ð |, in the case of a limited set of function words), which has historically established itself in a score of words borrowed from French (e.g., *theater, theme, throne, author, Catholic, anthem, apothecary, amethyst, arthritic, authentic, authority, lethargy, panther*) and is currently exerting pressure in others *(thyme, asthma, clothes, isthmus, waltham, Thames, height,* etc., in the latter case via visual metathesis), leaving only a small residue still apparently untouched *(Thomas, Thomson)*. At the time of their borrowing (thirteenth-fifteenth century), those in the first set had the spelling *t* (though some had an alternate *th* variant from the beginning), phonetically only [t]. At this point the underlying phonemic form of these words had /t/, which continued even after—by the end of the sixteenth century and following classical models—the current *th* spelling had replaced *t* in all the words in this set, and the spelling-pronounced form [θ] had appeared as a variant. A speaker of Modern English no longer thinks of the *th* in *theater*, etc., as /t/ but rather as | θ |, since no options in the pronunciation are available. Thus the morpheme has undergone simple restructuring, in at least one current sense of the term, where restructuring means "any change in underlying representations" (King 81). It is important to emphasize that changes like the restructuring of /t/ to | θ | here are not necessarily random and isolated events, but may form a coherent pattern of analogical leveling within an orthographically defined paradigm; such patterning renders suspicious the common practice of stereotyping the sporadic and isolated character of some occurrences of SPP and of generalizing them to the entire class of such events. In

this case the wholly SPP-motivated optional change realizing /t/ as [θ] was at some point introduced in the grammar of English and first applied, over a period of time, to the *theater*-set, and later to *thyme*, etc., but not to *Thomas*. At a still later stage, after this pronunciation rule had become obligatory for the *theater*-group (which, in some cases, did not occur until the late eighteenth century or later: for *apothecary*, for example, Walker acknowledges as late as in 1826 "a corrupt pronunciation, not confined to the vulgar, as if written *apotecary*;" cf. Buchmann 193), and a new generation learned only the [θ] form, restructuring to /θ/ took place. *Thyme* appears to be headed for a similar remodeling, although not *Thomas*; the latter, like common native words in general, appears to enjoy a measure of immunity to analogical processes, and thus to SPP. The correlation between relative frequency of occurrence and resistance to SPP is well known (e.g., Kenyon calls it "an underlying principle of spelling pronunciation" that words which a child is likely to learn thoroughly before learning how to read and write are the most resistant to SPP [114]; also cf. Householder 253); this relative resistance has been proposed as a basis for dividing the vocabulary into "native" and "foreign" layers (Vachek 1973; cf. also Robertson and Cassidy 177, Brengelman 1971).

The pattern of restructuring just discussed is summarized in Table I. The changing pattern of underlying forms suggests that the analogical extension of restructuring to new morphemes creates an increase in the incidence of /θ/ in the language; this, in turn, generates new minimal pairs (e.g., *thyme* : *time, theme* : *team, Thames* : *tames*) and thus enlarges the functional load of /θ/, strengthening its phonological status. In other words, the influence of the spelling has resulted here in an orthographically conditioned partial phonemic split; on a large-enough scale the effects of such a change may be no less disruptive of the system than modifications induced by regular phonetic change.

In a similar way SPP has strengthened the phonological status of /h/ in English by forcing its "de-silencing," especially in initial position (also cf. *forehead, vehicle*, etc.). Although the spelling-induced reestablishment of initial [h] is in most cases now (at least in the standard language) a historical fact, in some words it is still

Table I

	Pronunciation		Underlying form
	[t]	[θ]	
	theater	—	/t/
Stage I.	thyme	—	/t/
	Thomas	—	/t/
	theater ~	theater	/t/
Stage II.	thyme ~	(thyme)	/t/
	Thomas	—	/t/
Stage III.	—	theater	/ θ /
(present)	(thyme) ~	thyme	/t/
	Thomas	—	/t/
Stage IV.	—	theater	/ θ /
(hypothetical)	—	thyme	/ θ /
	Thomas	?	/t/

in progress, while in a few it has not (yet?) gotten off the ground.
Kenyon notes that even such words as *hospital, hostler, heritage,* and
humble "had no [h] sound as late as the eighteenth century, and
often still lack it" (140), although no longer in America; but we
still have alternation between [h] and its absence in the *hu-* -set
(human, humus, humor, humid, huge) with the spp clearly winning out,
as well as in *herb, homage,* and *heir,* where the spp is at least a well-
established variant. Only some of the most frequent h-words
(hour, honor, honest) still successfully resist spp, and perhaps ultimate
remodeling. Again, the slow but almost purposeful manner in
which the iconic principle takes effect within an orthographic
paradigm is clearly evidenced.

Other evidence abounds. spp is currently forcing the elimination
of the few remaining exceptions to the correspondence *ph* : /f/
(already complete word-initially), such as in *diphtheria, diphthong,
naphtha,* and (in America) *nephew.* More complex is the function of
the digraph *ch,* which has three principal phonetic values: (1)
[k], obligatory when *ch* is initial before liquid consonants and
common before vowels especially in technical and scientific terms
of Latin or Greek origin, some of which are now in the familiar
vocabulary and likely to resist change (e.g., *character, chemical,*

chaos); (2) [š], mostly of French origin and borrowed, with the spelling *ch* retained unchanged, subsequent to the change of /č/ to /š/ in early modern French (cf. Pyles 326, and doublets such as *chief* vs. *chef, chair* vs. *chaise, crotchet* vs. *crochet*); and (3) [č], which is the unmarked phonetic value of *ch* and its most common form. Predictably, and with few exceptions (such as *conch, chiropodist,* and sporadically *architect, chameleon,* etc., where [k] is affected), recently SPP has made inroads especially into (2), depleting it in favor of the unmarked category (3). Thus the spelling-pronounced [č] in many words including *chef, chic, chalet, chassis, chaise, cache, chasm, chamois, chagrin, challis, chandelier, chant(e)y, charqui, chibouk,* etc., is becoming standard for some speakers of American English, and the trend can be expected to grow, although it is difficult to predict what counter-currents might retard or set the limits of the analogic influence of SPP. Such might be in this case the desirability for many speakers (or advertisers?) of retaining the foreign flavor of names for imported products *(Chablis, champagne, chambray, champignon, château)* or for prestigious concepts *(chauffeur, chaperon, chivalry)* or simply of emulating "continental" pronunciations, such as that of stressed *a* as [a] rather than earlier [æ] in *Bahamas, Mazda, patio, plaza,* etc. (cf. Bolinger 402, Barber 72). Here one sociolinguistic variable interferes with the effect of another; the replacement of [æ] by [a] clearly counters the spelling-inspired trend in the direction of [æ] for the spelling *a* (*sadist, drama, data, catsup, status, strata, aviation, apricot, pecan, pajamas, ballet, valet, chassis,* etc.). In other cases the trend is less disturbed, although variation may be substantial; [ʌ] for *o* is being or has been replaced, presumably via spelling-induced innovation (cf. *bottom, bottle, lodge, pod, hot* for the model), by [a] in a host of words (*bomb, bombast, combat, honest, common, astonish, constable, compass, donkey, comrade, dromedary, grovelling, hover,* etc., as well as restressed *con-,* and *lexicon, Oregon,* etc.), but not, as expected, in *come, son, some,* or *love,* where [ʌ] remains invariant.

It goes without saying that similar restructuring also occurs— and is even more likely because of the conspicuousness of the anomaly—in isolated and idiosyncratic exceptions to strong iconic relations, such as *breeches, corps, victuals, viscount, February,* and the like. Note that the idiosyncracies lie in the spelling, and not

in the pronunciation by spelling: the effect of SPP is wholly iconicizing, and hence regularizing, though often counter-etymological. It clearly supports the underlying principle that "purposeless variety" tends to be eliminated from language (Anttila 143).

Rule Weakening and "Reversals"

Most local residents pronounce the last vowel of *Oregon* as un-stressed [ə], following the rather general productive rule in English that unstressed lax vowels are reduced to [ə] (Chomsky and Halle 111). But the same syllable is spelling-pronounced by many outsiders with a somewhat restressed [a]. Mencken noted the "considerable difference between the pronunciation of a name by natives of a place and its pronunciation by those who are familiar with it only in print" (658), and the same is true when outsiders use the vocabulary of a specialized field (Barber 67), both observations supporting the role of the frequency and familiarity factor noted above. But the restressing of unstressed syllables in American English (and the consequent spelling-pronunciation of the vowel) is sociolinguistically significant in a broader, historical sense also. Already Dr. Johnson declared that "In pronunciation, the best general rule is to consider those as the most elegant speakers who deviate least from the written word" (cited by Kenyon, 112), and in the United States the dictum he advocated found some particularly fertile ground, for complex reasons but especially through the influence of John Walker who, among other "pedantic prescriptions, . . . demanded full vowel sounds and secondary stresses on normally unaccented syllables" (Schlauch 140; see also Sheldon 1947). From a sociolinguistic point of view, the increasing absence of unstressing and of vowel reduction in certain contexts may be one clear effect of the much-noted "widespread reverence for the printed word" in America (e.g., R. Bailey 388); this reverence, evidenced by frequent hypercorrections via SPP, is characteristic especially of the socially mobil and upward-bound "second highest social class" (Labov 1972; C. Bailey 176)—in a different terminology, of "social up-starts, who are always fond of showing off their new gained superiority in this and similar ways" (Jespersen 294), and of

"people who are not quite at ease in their literacy" (Thomas 10). Here we see a strong socially-motivated force reinforcing the iconic relation between letter and sound at the cost of fostering the curtailment of a productive phonetic process. I shall return to this point below. In this instance, by blocking vowel reduction, SPP replaces the expected [ə] (here in the last syllable) by weakly stressed [a] in *Oregon, lexicon* (for *o* before *n*; cf. *Don, Ron*), and in *registrar* (for *a* before *r*; cf. *far, mar, scar*); by [o] in *mentor, vector, thorough*; by [i] in the plural suffix in *bases, processes, instances, premises, atlases, complexes, prospectuses,* etc.; by [ai] plus consonant for the graphic pattern *-iCe* in *agile, favorite, docile, juvenile, versatile, genuine*; and it replaces [ɪ] by [e] in *yesterday, Sunday, Monday;* and so on. What seems to be happening to this rule is a good example of how, as suggested above, SPP can ultimately be the prime triggering mechanism for rather profound changes in the phonetic character of a language. The absence of vowel reduction with the concomitant presence of secondary stress in the penultimate syllable of *secretary, military, laboratory, advertisement,* etc., for instance, has been for some time a characteristic trademark of American pronunciation (i.e., vis-à-vis British Received Pronunciation).

The blocking and hence weakening of synchronic processes by SPP should be clearly distinguished from the phonetic resurrection, through a "reversal" of historical changes (Thomas 10, Barber 70, Anttila 42), of earlier phonemic forms more or less preserved by the spelling. The latter amounts, in fact, to restructuring. Furthermore, while in some cases, and often by chance, SPP results in the phonetic recovery of something like the historical phonemic source that originally motivated the spelling, the reversal is normally only partial: the SPP of the last syllable of *yesterday* cannot produce the "recovery" of the historical source /æɪ/, for SPP fails to reverse the Great Vowel Shift; nor will, for the same reason, the SPP of *breeches* yield Middle English /e:/. Since SPP is an agent of iconicity, it is sensitive to historical processes only insofar as their reversal serves a synchronic-iconic end. Thus one often finds diverse diachronic sources for a particular spelling to which phonetic value is newly assigned by SPP in a given orthographic context; SPP, in other words, may erase etymological distinctions.

For example, the phonetic reappearance of *l* in *folk, yolk, walk, balk, stalk,* etc., undoes the actual historical loss of (etymological) [l] following late Middle English *au* and *ou* and before certain consonants *(m, f, v, k)*, a change that also affected *psalm, calm, holm, half, calf, halves, calves,* and so on (cf. Dobson 989). Exactly the same "rule" of spp is responsible for the historical phonetization of preconsonantal *l* in numerous other words (e.g., *adultery, assault, (de)fault, emerald, pulse, Ralph, realm, ribald, solder* [in British usage], *soldier, vault*), in which, however, the [l] is not etymological (cf. *th* above; see Buchmann 184). Thus while in the latter instances spp induced morphological restructuring, in the former it is "reversing," and thus obliterating the effect of, a historical process. But this is also restructuring, since the underlying forms /fok/, /yok/, etc., which allowed for no phonetic alternation (since there was no way to predict, short of listing, when [l] should be inserted), are being replaced once again by /folk/, /yolk/, etc., the phonemic form having run full cycle from historical /-lk/ to /-k/ again back to /-lk/. And the new /-lk/, presumably like the original one, is subject (for the time being) to the optional dropping of [l] by speakers who have such variation in their speech. The point here is that spp honors only the spelling, and not the historical reasons for the absence of any phonetic value for it; while it can almost "systematically" destroy (by repeated blocking) the effectiveness of a synchronic rule, it no more strictly reverses all cumulative historical changes by design than by chance. Actually the precise reason for "silent letters," while in some cases transparent (e.g., the insertion of *l* in *could* "in mechanical [i.e., analogical] imitation of *should* and *would*, where an etymological *l* had become silent, so that these words now rimed with *coud* . . ."; OED, vol. II, 57), sometimes appears difficult to pinpoint. *Salmon* (from Old French *saumon*) appeared early as both *saumoun* and (under Latin influence) *salmon* (cf. also *palm, almond, calm, calk, falcon*). The current spp of the word may reflect (1) the insertion of *l* (and hence [l]) into the variant *saumoun*, or (2) the reestablishment of [l] in *salmon* (where the sound was presumably lost by rule but the spelling retained); the result is the same. There is a third possibility, incidentally: (3) that [l] in *salmon* was never lost, and its current surfacing reflects a dialectal preservation of an old (though

in this case originally spelling-pronounced?) variant. A similar possibility exists in other apparent cases of SPP as well (e.g., *-tu-* in *literature, nature,* etc., pronounced with unaffricated [t^y] rather than [č]; cf. Jespersen 294, Householder 253).
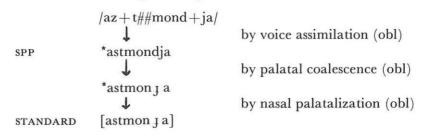
Morphologically complex (affixed and compound) words are, of course, even more vulnerable to phonemic reinterpretation through change-reversals, since by largely preserving the historical morphological analyzeability of such words, the conventional orthography facilitates meaning-form iconicity through SPP. Insofar as such analyzeability is still linguistically motivated, SPP amounts to a surfacing of underlying or near-underlying phono-logical forms (see below). Thus synchronically underlying (and, of course, historically affixed) *oft+en, soft+en, chaste+en,* and *haste+en* fail to drop their [t] when spelling-pronounced (similarly, in *Christmas, chestnut, hostler,* etc.) and show up phonetically to that extent unaltered; as before, SPP blocks a rule (here "*t*-deletion") and thereby reduces its function. (Note, however, that [t] appears by SPP also in *epistle, pestle, apostle,* etc., which are not similarly analyzeable. Again, SPP is motivated only by synchronic surface iconicity, although the conditioning for the analogy may be very specific; here [t] is reestablished only between a voiceless spirant and a resonant consonant; cf. *Boston, Preston, Austin, hostile, hostel.*) When SPP revives an older morphological analysis which implies unproductive rules, once again the result is restructuring, generally in the direction of semantic interpretability; remodeled /forhɛd/ or /botswen/ "makes sense" to a speaker of Modern English in a way /fɔrɪd/ or /bosn/ does not (cf. folk etymology, which is based on the same principle). As usual, relatively unfamiliar items are the easiest prey to SPP (note the reversal of *w*-loss in *Norwich, Southwark, Greenwich, Woolwich, coxswain, lightwood, gunwale, swoon,* though also *toward* and even *sword*). By reviving essentially the pre-change morphological structure preserved by the spelling, SPP closes the iconic gap between meaning and form.

Underlying forms

SPP would be optimal (and hence uninteresting) in a language with a phonetic alphabet for an orthography, for in such a system the correspondence between symbol and sound is by definition one-to-one, and therefore every phonetic event would be a case of SPP. Even in a purely phonemic or morphophonemic orthography the relation between spelling and pronunciation would be wholly predictable by conversion rules, and SPP would simply amount to the failure of some such rule(s) to apply. Significantly, in such a system the spelling would fully represent the underlying phonemic forms, and the spelling-to-sound conversion rules would be phono-logically motivated; thus SPP would, in effect, induce the surfacing of underlying forms. Such an ideal system probably does not exist in real languages. English is certainly not such a language, although we have seen that even here in some instances the block-ing of a rule by SPP can have this effect *(soften, hasten)*. On the other hand, in languages with a more consistently morpho-phonemic orthography, and where the "derivational distance" between underlying and phonetic forms is relatively short (i.e., where, by implication, spelling and pronunciation closely cor-respond), pronunciation according to the spelling commonly "exposes" a sub-surface form, sometimes the underlying form itself. Thus in Greek, *áfantos* "invisible" or *emporikí* "commercial" might be (incorrectly) pronounced as spelled, rather than, if the expected rule(s) had applied (i.e., the obligatory voicing of post-nasal stops, and the subsequent optional deletion of the nasal), [áfandos ~ áfados] and [emborikí ~ eborikí] (Kazazis 202). Or in Hungarian, the blocking by SPP of a palatalization rule results in [adja] and [la:tja] for *adja* /ad+ja/ "one gives it" and *látja* /la:t+ja/ "one sees it," instead of the standard pronunciations [aɟ:a] and [la:c:a] (Varga 162). Since in such cases SPP causes (or contributes to) the failure of an obligatory phonetic rule to apply as expected, again we see its disruptive effect: rules that should apply are repeatedly blocked and are to that extent weakened. Reports on standard Hungarian, for example, show a dramatic recent decrease in the occurrence of certain supposedly obligatory assimilations (such as above), and attribute this phenomenon to a large degree directly to the influence of the orthography on pro-

nunciation (Szántó 1962, Elekfi 1968, Varga 1968). (I am begging
the empirical and for now unresolvable question as to what extent
the phonetic surfacing of orthographically represented (near-)
underlying forms such as in the preceding examples is brought on
by spp, rather than by the "psychological reality" of these forms;
the two, as Kazazis implies, probably reinforce one another.
Although the question remains open, here I am assuming the
relevance of orthographic influence.)

Speech Style
The nonapplication of some obligatory phonetic rule(s) has the
further interesting implication that it results in a distinct, "over-
careful" speech style (generally in lento speech) which may be-
come consistent and habitual and thus idiolectally or dialectally
diagnostic. In classical transformational-generative grammar style
is a function of choice among optional rules, so that if some such
rule is chosen we get Style A, otherwise Style B. The speaker is
invited to make such choices at various points along the stylistic
spectrum moving from formal (standard) toward more casual and
colloquial speech styles, such as from [aɪæm ˈgowɪŋ tʊ ˈhɪtyuw]
I am going to hit you to something like [əmə ˈhɪčə]. In Hungarian
the following (simplified) derivation yields the standard pro-
nunciation for *azt mondja* "he says it":

$$/az+t\#\#mond+ja/$$
$$\downarrow \quad \text{by voice assimilation (obl)}$$
SPP $\quad$ *astmondja
$$\downarrow \quad \text{by palatal coalescence (obl)}$$
*astmonɟa
$$\downarrow \quad \text{by nasal palatalization (obl)}$$
STANDARD $\quad$ [astmonɟa]

and subsequent optional rules produce progressively more casual-
style pronunciations ([asmoñɟa—asmõñɟa—asõñɟa—asə̃ñɟa—
asñɟa]). Any one of these pronunciations could occur, but while
'sub'-standard variants imply rule options and are to that extent
grammatical, 'supra'-standard forms are the result of the violation
of the obligatoriness of some rule(s) (here palatalizations) and are
therefore ungrammatical, although of course socially the outcome

Table II

APPLICABILITY STATUS		*Rule applies*	*Rule does not apply*	OUTPUT RATING
	Rule may apply (optional)	G	G	
	Rule may not apply (optional)	G	G	
	Rule must apply (obligatory)	G	U ⟵	*Rule blocked by* SPP
	Rule must not apply (inapplicable)	U	G	

where G=grammatical, U=ungrammatical.

may be equally unacceptable and stigmatizing. Thus once again, by forcing ungrammatical outputs, SPP interferes with the normal operation of the phonological system, here motivating a type of phonetic behavior which the grammar, as currently envisioned, cannot even predict, as the boxed output in Table II shows (cf. Kerek 1974b).

The precise nature and extent of orthographic influence on the phonology is of course subject to much further empirical research; the foregoing should suggest that this influence is a significant extralinguistic factor which linguistic description cannot ignore.

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