JOHN M. LIPSKI

ON THE WEAKENING OF /S/ IN LATIN AMERICAN SPANISH

The behavior of the phoneme /s/ is one of the most variable phenomena characterizing Spanish phonology, and the differential behavior of this same phoneme is perhaps the single most useful parameter in dialectological descriptions. In particular weakening of /s/, especially in implosive position, is common in most areas of Latin America except for a few interior highland regions and has long been considered part of the Andalusian heritage of Latin America. The beginnings of the weakening of /s/ are impossible to determine exactly, but date at least from the early sixteenth century in some areas[1] and conceivably even before then, the tendency apparently being inherited from Latin, as evidenced by parallel developments in French several centuries earlier.

Once transferred to Latin America, the weakening of /s/, in the form of aspiration and deletion, as well as the retrogressive modification of consonants (for example, the pronunciation of *resbalar* as *refalar*), has become extended and generalized in a number of dialects, in fashions with reflect evolutionary pressures at times far removed from the original, purely phonetic process of effacement in implosive position. The most common extension involves aspiration of /s/ when the following segment is a vowel. Aspiration may also occur sporadically after consonants (as in *entonces [entõhes]*), and occasionally even phrase-initially, most notably in the word *si* said ponderingly. The various post-phonetic extensions of the weakening of /s/ not only serve to differentiate individual dialects and styles, but also help shed light on the nature of language change, the interaction of phonological and morphological tendencies, the reality of "rule conspiracies", and the general notion of naturalness in sound change. For this reason, considerable attention has recently been directed at the various manifestations of /s/ in a number of American Spanish dialects, utilizing a quantitatively-oriented framework in order to delve more deeply into the theoretical questions suggested by the distributions of variants. These studies have touched on sociolinguistic stratification among styles and groups of speakers and on the interaction between phonological and

---

[1] RAFAEL LAPESA (1980). Historia de la lengua española. Madrid, 248.

paradigmatic considerations of wider scope, and in passing have also touched the question of diachronic evolution leading to extensions of the original process. The present study continues the line of investigation of earlier works in order to demonstrate some of the theoretical implications of the extension of the weakening of /s/, and the differentiation of this process among numerous dialects. This synthetic approach will be facilitated by considering data from some Latin American dialects which have previously not been studied in depth as regards the behavior of /s/.

Spanish documents show no systematic evidence of weakening of /s/ in any position until the sixteenth century, at which point a few scribal indications may be found which suggest that /s/ was being aspirated in implosive position before other consonants[2]. Shortly thereafter, Golden Age dramatists and poets, in their literary attempts to depict the speech of poor black slaves and freedmen in Spain, gave to these subjects a pronounciation in which word-final /s/ was frequently eliminated, particularly in the verbal desinence -*mos*[3]. Although this pronounciation is only attributed to individuals of the lowest social position, there is no evidence to indicate that black speakers originated this change; rather, they were most probably the recipients of a process that was becoming increasingly widespread among the lower classes in Andalusia, with which the slaves were in constant contact. It is true that African language influence has occasionally been cited as being responsible for the weakening of /s/ and other final consonants in Spanish[4], but little accurate information is available as to the phonotactic details of the languages spoken by slaves in sixteenth-century Spain; moreover, if we examine evidence presented by Portuguese-based creoles in Africa, including the same areas whence came most of the slaves for the Spanish colonies, we find no evidence of systematic loss of /s/[5]. The one exception is in the desinence -*mos*, where final /s/ may be lost not only in African Portuguese dialects, but also in Asian Portuguese creoles, in Philippine Spanish creole, and (through probable Italian influence), in the Argentine *cocoliche* jargon[6]. This suggests that the weakening of /s/ in

[2] Ibid.
[3] EDMUND DE CHASCA (1946). The phonology of the speech of the negroes in early Spanish drama. In: Hispanic Review 14, 322–339. – GERMÁN DE GRANDA (1969). Posibles vías directas de introducción de africanismos en el "habla de negro" literaria castallana. In: Boletín del Instituto Caro de Cuerva 24, 459–469.
[4] RUFINO J. CUERVO (1947). El castellano en América. Buenos Aires, 82–85.
[5] MARY NUNES (1962). The phonologies of Cape Verdean dialects of Portuguese. In: Boletim de Filologia 21, 1–56. – RENATO MENDONÇA (1933). A Influencia Africana no Português do Brasil. Rio de Janeiro.
[6] GRACIELA NOGUEIRA BATALHA (1958–1959). Estado actual do dialecto macaense. In: Revista Portuguesa de Filologia 9, 177–213. – F. A. COELHO (1880). Os dialectos românicos ou neo-latinos na Africa, Asia e América. In: Boletim da Sociedade de Geografia de Lisboa,

the morpheme -*mos*, while perhaps reflecting a phonetic weakening process, is advanced by the redundant status of the /s/, since identification of the morpheme is easily effected in the absence of the final [s][7]. The same is true for many of the other words which Golden Age writers depict as being pronounced without final /s/, including *Dios* and *Jesús*; it suffices to compare the cognate forms in Italian. Significantly enough, the Golden Age literary documents provide no systematic evidence of a process of aspiration or loss of /s/ in word-internal implosive position. The sketchy evidence that does emerge (sketchy in that it appears that many of the authors were better dramatists than phoneticians and did not accurately or consistently reproduce the popular speech patterns), shows only weakening of grammatically redundant word-final /s/, regardless of the presence or nature of a following segment. Evidence from Papiamentu, derived from a Spanish-Portuguese creole, demonstrates that weakening of /s/ was beginning to spread in the seventeenth century, at least among the slaves[8].

For evidence of a systematic reduction of /s/ in all implosive positions, we have to wait until around the turn of the eighteenth century[9], although the process undoubtedly occurred earlier in certain areas among less cultured speakers. The first phase of the process was aspiration of /s/ before consonants, and perhaps also in phrase-final position, obeying the general hierarchy of syllabic strength, whereby syllable-final position is phonologically weakest[10]. The most likely phonetic route was a gradual one, vestiges of which may still be observed in Latin America. For example, many speakers in Argentina, Uruguay, Chile, Peru, and Paraguay, lightly reduce /s/ before dental consonants to an aspiration which still retains some of the dental sound; thus *este* is [eh^t-te], with the tongue retracting somewhat but never completely losing the constriction responsible for the fricative sound. Another variant, with nearly identical articulatory correlates, is a fricative which is similar to the interdental [θ] heard in the Castillian dialect, sometimes with additional nasalization,

2ª serie, n° 3, 129–191. – KEITH WHINNOM (1956). Spanish Contact Vernaculars in the Philippine Island. Hong Kong. – GIOVANNI MEO ZILIO (1964). El "cocoliche" rioplatense. In: Boletín de Filología 16, 61–119.

[7] TRACY TERRELL (1977). Universal constraints on variable deleted final consonants: evidence from Spanish. In: Canadian Journal of Linguistics 22, 156–168.

[8] RODOLFO LENZ (1926–1927). El papiamentu, la lengua criolla de Curaçao. In: Anales de la Universidad de Chile 4, 695–768, 1023–1090; 5, 287–327, 365–412, 889–989.

[9] Evidence from Santo Domingo is given by MAX JIMÉNEZ SABATER (1975). Más datos sobre el español dominicano. Santo Domingo, 34–35.

[10] Cf. JOAN HOOPER (1976). Introduction to Natural Generative Phonology. New York, chap. 10.

3

again produced by slightly relaxing the alveolar constriction[11]. Form this point on, that of an indistinctly defined anterior fricative, the step to an aspiration, which is a posterior fricative, may be effected through acoustic similarity, since the aspiration has fewer distinct acoustic characteristics than any of the anterior fricatives. It is this same type of acoustic quasi-equivalence that is responsible for the shift from [f] to [x] in popular speech (*se jue* for *se fue*). The end result, once the frontal construction has been removed, is merely the aspiration of the glottal stream, modified acoustically only by the general configuration of the oral cavity. Thus, despite the popular literary tendencies which often represent the aspirated implosive /s/ as *j*, the resulting sound is in reality usually a mere aspiration and not a velar fricative[12]; in those dialects where a strongly fricative /x/ is to be heard, the aspirated /s/ still remains soft and non-strident, phonetically distinguishable from realizations of /x/.

Even at this first stage of the aspiration process, there are always non-phonetic factors which influence the outcome. For example, phrase-final position will typically be more resistant, since it gives the final consonant prominence in the speech chain. Similarly, monosyllabic words ending in /s/ frequently tend to retain this sound, perhaps avoiding excessive phonetic erosion, and other morphological and paradigmatic pressures may also enter into consideration[13]. In each case, however, these constraints act to modify a general phonetic process, affecting the frequency of application in certain forms but not affecting the overall configurations. In terms of a phonological rule, we may depict the first stage of the weakening as:

$$(1) \qquad s \rightarrow h \; / \; \underline{\quad} \; \begin{Bmatrix} C \\ \#\# \end{Bmatrix}$$

It is not immediately obvious that the two environments should be collapsed into a single rule, since in most dialects prepausal position is considerably more resistant, but in phonetic terms, prepausal position does qualify as syllable-final, and in view of other processes in Spanish (assibilation of syllable-final /r/, loss of syllable-final /d/, velarization of word-final /n/, interchange or loss of syllable-final /l/ and /r/) which do

[11] This sound has been noted for Nicaragua by HERBERTO LACAYO (1954). Apuntes sobre la pronunciación del español en Nicaragua. In: Hispania 37, 267–268. – For El Salvador, see D. LINCOLN CANFIELD (1968). Observaciones sobre el español salvadoreño. In: Filología 6, 29–76.

[12] The velar fricative may occur before [k] or [g]; see WASHINGTON VÁSQUEZ (1953). El fonema /s/ en el español del Uruguay. In: Revista de la Facultad de Humanidades y Ciencias, Universidad de Uruguay 10, 87–94.

[13] For example, TRACY TERRELL (1979). Final /s/ in Cuban Spanish. In: Hispania 62, 599–612.

not make substantial differences between pre-consonantal and prepausal position, it is probably best to leave the conditioning environment as in (l), subject to the constraining factors mentioned earlier. Another question, and one rarely mentioned in discussions of the weakening process, is whether one need differentiate between word-internal and word-final pre-consonantal position in the evolution of (l). Most accounts implicitly suggest that such a separation is unneccessary, and that only phonetic factors obtain, and some investigators have even suggested that aspiration first occurred in word-internal implosive position[14]. Consideration of dialects in which the aspiration/deletion process has reached an advanced state may support such contentions, for often little difference is seen between word-internal and word-final position. Such is the case for the Caribbean dialects, and that of Argentina, while the dialects of Chile, Peru, Uruguay und Paraguay show a slight resistance in internal position, as evidenced by the comparative figures in Table 1[15].

Table 1: Realization of /s/ in Latin American Spanish dialects (%)

	sC			s≠C			s##			s≠V́			S≠V̆		
	s	h	Ø	s	h	Ø	s	h	Ø	s	h	Ø	s	h	Ø
Argentina	12	80	8	11	69	20	78	11	11	93	7	0	94	6	0
Chile	7	93	.5	4	88	8	63	33	4	90	10	0	76	22	2
Costa Rica	92	8	0	69	29	2	96	4	0	98	2	0	98	2	0
Cuba	3	97	0	2	75	23	61	13	26	48	28	25	10	53	37
Dominican Republic	8	17	75	5	25	70	36	10	54	50	5	45	17	22	61
El Salvador	55	44	1	10	71	19	86	12	2	44	47	9	28	69	3
Guatemala	93	7	0	69	30	1	93	3	0	100	0	0	100	0	0
Honduras	63	34	3	19	58	23	83	15	2	90	10	0	61	38	1
Nicaragua	13	83	4	2	86	12	35	59	6	28	70	2	7	90	3
Panama	13	52	35	4	48	48	25	21	54	62	13	25	9	67	27
Paraguay	14	86	0	2	92	6	83	15	2	47	53	0	15	84	1
Peru	53	47	0	21	71	8	91	8	1	94	6	0	91	9	0
Puerto Rico	3	92	5	4	69	27	46	22	32	45	32	23	16	53	31
Uruguay	20	79	1	4	88	8	85	13	2	98	2	0	93	7	0
Venezuela	7	40	53	3	47	50	38	16	46	57	26	17	15	52	33

Legend: C = consonant; ≠ = word boundary; ≠≠ = pause; V́ = stressed vowel; V̆ = unstressed vowel

[14] T. TERRELL, Final /s/ in Cuban Spanish (see note 13), p. 610.
[15] The data for Cuba come from T. TERRELL, Final /s/ in Cuba Spanish (see note 13). – For Puerto Rico, see TRACY TERRELL (1978). Sobre la aspiración y elisión de /s/ implosiva y final en el español de Puerto Rico. In: Nueva Revista de Filología Hispánica 27, 24–38. – For Argentina, see TRACY TERRELL (1978). Aspiración y elisión de /s/ en el español porteño. In:

However, the differential behavior is more pronounced in the Central American dialects of El Salvador and Honduras, where the weakening process is not as categorial, and even Nicaragua, where aspiration attains the same levels found in the Caribbean. The differences are merely numerical, gradations of a single process, and yet in the dialects where the process is not as advanced the differential behavior suggests that there may indeed be a precursor stage of weakening of word-final implosive /s/, in the morpheme -mos, in combinations such as *todos los, todas las,* etc. Further support for such an idea is provided by data from Costa Rica and Guatemala, whose capital-city dialects are among the phonologically most conservative of Latin America, as regards the behavior of /s/. These data show a decided tendency to weaken word-final implosive /s/, while word-internal preconsonantal /s/ continues to resist effacement. The reasons for this differential distribution are many, but surely indicate the high degree of redundancy of many instances of word-final /s/, whose grammatical content is reinforced by other elements of the phrase and the overall context. In the dialects under study, word-final /s/ in the second person singular verb endings is redundant in most cases; in the Caribbean dialects a more frequent use of the subject pronoun *tú* obviates excessive retention of the /s/, while in Central America, Argentina, Uruguay and Paraguay, the *voseo,* which places word accent on the final syllable of the present tense forms, similarly undermines the functional necessity of miantaining word-final /s/. Even though word-internal implosive /s/ serves to distinguish few minimal pairs (*pescar/pecar*), it is not separable by any regular morphological process, and is therefore felt to be a more inherent part of

Anuario de Letras 16, 45–66. – For Panama, see HENRIETTA CEDERGREN (1978). En torno a la s final de sílaba en Panamá. In: HUMBERTO LÓPEZ MORALES (ed.), Corrientes actuales en la dialectología del Caribe Hispánico. Río Piedras, 35–50. – For Honduras, see JOHN LIPSKI, Instability and reduction of /s/ in the Spanish of Honduras [to appear in Revista Canadiense de Estudios Hispánicos]; JOHN LIPSKI, Inestabilidad de /s/ en el español de Honduras [to appear in Nueva Revista de Filología Hispánica]. – For Nicaragua, see JOHN LIPSKI, /s/ in the Spanish of Nicaragua [to appear in Orbis]. – For the Dominican Republic, see ORLANDO ALBA (1982). Función del acento en el proceso de elisión de la /s/ en el español de República Dominica. In: ORLANDO ALBA (ed.), El español de Caribe: ponencias del VI Simposio de Dialectología. Santiago de los Caballeros, 15–26; RAFAEL NÚÑEZ CEDEÑO (1980). La fonología moderna y el español de Santo Domingo. Santo Domingo. – For El Salvador, see JOHN LIPSKI (1982). Central American Spanish in the United States: the case of El Salvador. Presented at 3rd annual conference El Español en los Estados Unidos, Indiana University [To appear in the proceedings]. Data from the remaining countries were collected by the present writer, utilizing speakers from the capital cities in each case. In each case, five members of the upper middle class were chosen (corresponding to the data in the above-mentioned studies) and each provided approximately one hour of taped interview material, which was subsequently analyzed. Data from Central America and Venezuela were collected *in situ,* while data from the remaining countries were collected from informants who were visiting in the United States.

the word. Therefore, it is possible to postulate, as a proto-process for areas affected by weakening of /s/, a rule originally restricted to word-final position:

$$(2) \qquad s \to h \,/ \underline{\hphantom{xx}} \,\# \begin{bmatrix} C \\ \#\# \end{bmatrix}$$

A process of generalization to all implosive positions then yields (1), which is operative in most of the dialects under consideration. It is also not impossible that the process of preconsonantal weakening of /s/, while basically a phonetic erosion, has taken slightly different paths in various dialects, and at different points in history. Dialects such as those of the Caribbean and Southern Cone have presumably been subject to the aspiration process for several centuries, while in Costa Rica and Guatemala the spread of aspiration appears to be a more recent phenomenon, whose extension to larger segments of the population may actually be observed in synchronic investigations. It may never be possible to determine the exact sequence of events, which once again points out the impossibility of assuming uniform and instantaneous application of phonetically motivated processes.

In many dialects, word-final /s/ is also aspirated when the following word begins with a vowel, as indicated in Table 1. In many cases, the rate of aspiration is noticeably lower before vowels than before consonants, and the rate of deletion still lower; moreover, the presence of a stressed vowel serves as a more potent impediment to aspiration than an unstressed vowel. This behavior makes one suspect a process of general weakening in the phonetically most indistinct position, since word-final /s/ in this position is invariably intervocalic, and in the majority of cases the preceding vowel is unstressed as well. The question thus arises as to the incorporation of this new environment into the original rule (1). Since no known speakers aspirate only in word-final prevocalic position and not in word-final preconsonantal position, the implicational relationship favors the extension of (1). The most obvious motivation is the reduction of allomorphy, since the extension of aspiration of word-final /s/ regardless of following environment creates the single realization [h] for /s/, at least in rapid speech. Typically, it has been assumed that this extension to prevocalic positions is a straightforward generalization of (1), but the formal representation of such a generalization points out the difficulties incurred in such an approach. Merely listing the disjunctive environments produces a grotesque-looking rule completely at odds with any notions of phonological naturalness, class membership or other significant generalization:

(3) $\quad$ s → h / — $\begin{Bmatrix} C \\ \#V \\ \#\# \end{Bmatrix}$

Another generalization[16] is

(4) $\quad$ s → h / — [+ segment],

which does not account for phrase-final weakening and also predicts aspiration in many word-internal environments, which does not occur in reality. Another extension[17]

(5) $\quad$ s → h / — #

accounts for all word-final environments, but makes no mention of the frequent process of word-internal implosive aspiration, while an extension including both word and syllable boundaries[18]

(6) $\quad$ s → h / $\begin{bmatrix} \# \\ S \end{bmatrix}$

presupposes a syllabification in the underlying representation, which presents additional theoretical problems. In view of the available facts, it appears preferable to speak not in terms of a generalization of (1) to cover additional environments, but rather of the addition of a separate rule, motivated by conditions of paradigmatic regularity, which causes aspiration of word-final /s/ in prevocalic positions:

(7) $\quad$ s → h / — #V.

Such a postulate is more in accordance with observed facts, since no phonetic motivation is claimed for (7); it is merely a morphophonemic rule added to assure paradigmatic regularity on a larger scale. The postulate of separate rules is also justified by frequencies of application; in no dialect has the frequency of word-final prevocalic aspiration reached the same order of magnitude as preconsonantal aspiration, and in formal contexts such as speeches, reading and radio broadcasting, the frequency of prevocalic aspiration falls much more sharply than does that of preconsonantal aspiration, indicating, that different constraints are involved in each case[19].

---

[16] T. TERRELL, Final /s/ in Cuban Spanish (see note 13), p. 609.
[17] Ibid.
[18] JORGE GUITART (1981). En torno a la sílaba como entidad fonemática. In: Thesaurus 36, 457–463.
[19] See JOHN LIPSKI (1981). Spanish in U.S. broadcasting: discovering and setting standards [To appear in LUCÍA ELÍAS-OLIVARES (ed.), Spanish Language Usage in Public Life. The Hague].

Although the original motivation of (7) was not purely phonetic, but rather morphological, the combined effect of (1) and (7) is to produce a number of canonical sequences which have significantly altered the phonotactic patterns of the Spanish dialects in which these rules occur. A pattern is established by means of which the phoneme /s/ in word-final position is realized as [h] (or even as Ø), regardless of following environment; at the same time, for nearly all speakers, the combined application of (1) and (7) is conditioned by conversational style and rapidity of speech, so that the psychological reality of the underlying /s/ is nearly always manifest[20]. It is therefore not beyond the bounds of the imagination that the morphological conditioning of (7) might be modified or lost, in favor of a purely phonetic process, namely that of eliminating the phonetic signals of juncture between words. If one supposes that (2) preceded (1) in certain dialects or for certain speakers, then it is possible to visualize an early stage in which the combination [hC] signalled the presence of a word boundary between the two segments: [h # C]. The sequence [sC] could be word-internal or could contain a word boundary. A generalization to (1) could then be considered not only a phonetic generalization to all preconsonantal positions, but also an elimination of the phonetic discontinuity at the word boundary. Even in modern Spanish dialects, a sequence of the form [CsC] (as in *instante*) can only be word-internal; popular phonetic tendencies which are typically regarded as reducing difficult constant clusters and/or creating open syllables, also remove the differential conditions for signaling word boundaries[21].

The addition of (7) to the phonology of a Spanish dialect creates another differential signal for a word boundary, since the combination [VsV] may be word-internal or may contain a word boundary, whereas the sequence [VhV] must be divided as [Vh # V] (or in a few cases as /Vs # hV/, as in *es general*) – presuming that psychological awareness of the underlying /s/ has not been lost. The paradigm of word-final realizations has been regularized, but in the process a new kind of allomorphy has been created, the preferential signalling of word boundaries, which goes against the general tendencies of *enlace*, vowel fusion, and other phonetic processes in Spanish which obliterate differentiation of word boundaries.

---

[20] There are cases however where even the underlying psychological awareness of the /s/ may disappear. See for example TRACY TERRELL (1982). Reflexificación en el español dominicano: implicaciones para la educación. In: ORLANDO ALBA (ed.), El español del Caribe. Santiago de los Caballeros, 301–318.

[21] JOHN LIPSKI, La discontinuidad fonética como criterio dialectológico [To appear in Thesaurus].

Consider now the data regarding pronunciation of word-initial (inter-vocalic) /s/ in the Spanish of Honduras and El Salvador.

Table 2: Realizations of word-initial intervocalic /s/ (%)

	V ≠ sV́			V ≠ sV̆		
	s	h	Ø	s	h	Ø
El Salvador	99	1	0	91	9	0
Honduras	99	1	0	79	21	0

From these data it may be seen that the aspiration of word-initial /s/ before unstressed vowels is well under way, thus representing a phonetic innovation. Sporadic cases of aspiration of word-initial /s/ have been signalled for other dialects[22], but in no other dialect has the process reached the extent found in Honduras and El Salvador. One may seek to incorporate extension of this environment as part of (7):

$$
(8) \qquad s \to h / \left\{ \begin{array}{l} \text{—}\#V \\ V\#\text{—}V \end{array} \right\}
$$

Moreover, since aspiration occurs only intervocalically, we have in reality two mirror-image environments, which may be collapsed by the mirror-image notation[23]:

$$
(9) \qquad s \to h \text{ // } V\text{—}\#V
$$

However, the mirror-image convention is most frequently applied to individual segments and not to boundaries; moreover, nearly all uncontroversial applications of the mirror-image convention involve assimilation, which is not the case with (9). What is needed is an expression of the fact that intervocalic /s/ is aspirated in contact with a word boundary, a difficult feat given the currently accepted conventions. It may also be the case that although aspiration of word-initial /s/ is a generalization of (7), the two processes are best kept as separate rules, since they respond to diffe-

---

[22] For Chile, see RODOLFO LENZ (1966). La lengua castellana en Chile. Santiago. – For Argentina, BERTA ELENA VIDAL DE BATTINI (1964). El español de la Argentina, v. 1. Buenos Aires, 102–103. – For the Dominican Republic, MAX JIMÉNEZ SABATER, Más datos sobre el español dominicano, pp. 34–35. – For Cartagena, Colombia, SERVIO BECERRA (1980). Consonantes implosivas en el español de Cartagena de Indias. In: GARY SCAVNICKY (ed.), Dialectología hispanoamericana. Washington, 100–112.

[23] RONALD LANGACKER (1969). Mirror image rules II: lexicon and phonology. In: Language 45, 844–862. – For application of this convention to strings of segments, see JOHN LIPSKI (1977). Segment, sequence and mirror-image. In: Linguistics 192, 53–67.

rent motivations. While (7) reduces allomorphy by extending the number of cases in which word-final /s/ is realized as [h], aspiration of word-initial /s/ creates more possible phonological analyses of the string [VhV] and reduces the conspicuousness of the word boundary in the spoken chain; at the same time, it does increase word-level allomorphy.

The extension of (7) does not completely eliminate the allomorphy which delimits the word boundary, since the sequence [VhV] still must include a word boundary, but the relative position of the word boundary need no longer be specified, merely its presence. In other words, this extension, while increasing allomorphy at the word level (since a word beginning with /s/ will still be pronounced with initial [s] in phrase-initial and post-consonantal position), creates a single canonical pattern for the representation of the boundary between two words, one of which contains an /s/ adjacent to the word boundary and the other of which contains a vowel next to the word boundary. Moreover, this canonical representation may even be extended to sequences of two words each of which contains an /s/ adjacent to the boundary (*las semanas*), since for most Honduran and Salvadoran speakers, there is an intrinsic ordering of (1) before (7) or (9), so that aspiration of the word-final /s/ occurs first, after which the following word-initial /s/ may also be aspirated.

Honduran and Salvadoran Spanish exhibits yet another extension of (7), for there is wide-spread aspiration of word-internal intervocalic /s/, largely before unstressed vowels. Except for a few isolated examples, the aspiration of word-internal intervocalic /s/ usually occurs at a morpheme boundary (*presupuesto, desempleo*) or in words whose superficial configuration yields the appearance of containing a prefix (*presidente, presentación, decisión*). One may also include the nearly universal aspiration of the internal /s/ in *nosotros* (common in other dialects as well), which accounts for most of the instances of aspiration of intervocalic /s/ before stressed vowels. Table 3 contains the numerical data.

We may postulate an extension of (9) to cover aspiration of /s/ in contact with a morpheme boundary, with the above caveat:

(10)   s → h // V——+V

Table 3: Realization of internal intervocalic /s/ (%)

	VsV́			VsV̆		
	s	h	Ø	s	h	Ø
El Salvador	95	5	0	89	11	0
Honduras	91	9	0	81	18	1

Neither (9) or (10) has become completely generalized in Honduras and El Salvador, but the frequencies of occurrence are high enough, especially in speakers of the lower social strata (the data in Tables 2 and 3 represent speakers of the highest social classes), that the process is obviously a systematic part of the dialects, and this illustrates the competing influence of purely phonetic tendencies, the elimination of word-level allomorphy, and the reduction of canonical surface patterns which signal word boundaries. The extension of (7) to (9) increases word-level allomorphy, but creates a single canonical pattern for intervocalic /s/ adjacent to a word boundary. The extension to (10) creates little additional allomorphy, and reduces even more the number of canonical surface patterns, since the sequence [VhV] may now represent the underlying sequence /VsV/ without postulating an intervening word boundary. In practice there are constraints limiting the application (9) and (10), including the accentual pattern of the following vowel, the position of /s/ within the word (aspiration is more common in the first or second syllable), the number of syllables in the word (aspiration is more common in words of three or more syllables), etc.

The preceding discussion has shown that reduction of allomorphy in paradigms is not the only global phonological tendency in shaping the generalization of phonological rules, since an increase in word-level allomorphy may act to reduce alternations in other contexts. In the case of the Spanish dialects under consideration, it has been seen that extension of aspiration of word-final /s/ to prevocalic positions reduces word-level allomorphy but increases the number of canonical surface patterns and provides a phonetic discontinuity at the word boundary. Dialects such as those of Honduras and El Salvador reduce these canonical combinations through a further extension of the aspiration process. Nothing short of a completely general rule, aspirating /s/ in all environments, would eliminate both kinds of allomorphy, but the consequences for the phonotactics would be drastic.

Reduction of allomorphy and elimination of phonetic discontinuities at the word boundary are meta-phonological processes, affecting the outcome of individual rules or groups of rules, and as such are not directly accessible to the intuitions of linguistically naive native speakers. The meta-process approach promises to be of value in the characterization of phonetic differences among dialects and social strata, and the characterization of individual phonological evolutions and rule modifications. While it may be safely assumed that any large-scale process of phonological innovation or rule modification, in the absence of external factors, probably represents some sort of simplification or idealization in some area of the

overall grammar, this simplicity may not be calculated solely on the basis of the immediate effects of a given rule, or even on such important notions as the reduction of allomorphy, pattern regularity and rule strategies. Since the human linguistic apparatus operates simultaneously on a number of levels of abstraction, the notion of higher level meta-processes in the phonological system must somehow be incorporated into discussions of phonological evolution and dialect differentiation. The preceding remarks, while both tentative and based on a limited range of data, offer one example of the need to consider the interaction of phonological parameters on several levels.

ZUSAMMENFASSUNG

Dieser Aufsatz behandelt die unterschiedlichen Ausprägungen der Schwächung von /s/ in einigen Dialekten des Spanischen in Lateinamerika. Diese Schwächung war ursprünglich ein phonetisch motivierter Vorgang, der sich nur in implosiver Stellung vollzog, erstreckte sich aber später auf wortfinale prävokalische Position allgemein. Hier wird die Auffassung vertreten, daß die letztere Entwicklung keine Erweiterung des ursprünglichen Vorgangs darstellt, sondern im Gegenteil eine neue Regel konstituiert, deren Ergebnis in einem höheren Grad an paradigmatischer Regularität zu sehen ist.

Zusätzliche Daten aus Honduras und El Salvador weisen einen hohen Anteil geschwächter /s/-Realisationen in anlautender und intervokalischer Position auf, eine Innovation, die die Anzahl der oberflächenstrukturell festgelegten Muster an der Wortgrenze reduziert. Es wird die These aufgestellt, daß diese Neuerung das Bedürfnis spiegelt, den allgemeinen Gesetzmäßigkeiten spanischer Phonotaktik entsprechend eine phonetische Markierung der Wortgrenzen zu beseitigen und daß das Ausmaß der Reduktion paradigmatischer Allomorphie durch verstärkte Berücksichtigung syntagmatischer Gesichtspunkte abgemildert werden muß, z. B. durch die bevorzugte Markierung der Wortgrenzen durch phonologische Diskontinuitäten.

Adresse des Autors: Prof. Dr. John M. Lipski
                    Department of Spanish and Other Languages
                    University of Houston
                    Central Campus
                    Houston, Texas, 77004
                    U.S.A.