Elision of Spanish Intervocalic /y/: Toward a Theoretical Account

John M. Lipski

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Prepared by Jorge Guitart*

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■ John M. Lipski, *University of Florida*

1. Introduction

Pronunciation of Spanish intervocalic /y/[1] is subject to considerable regional variation, ranging from a prepalatal affricate to a weakly articulated semivowel [i̯]. In those dialect regions where the latter pronunciation predominates, total effacement of certain instances of intervocalic /y/ is common, resulting in potential merger of minimal pairs such as *sella* '(s)he seals'/*sea* 'be' (subj., 3s.).[2] In the same dialect zones, hypercorrect epenthesis of intervocalic /y/ in popular speech is not infrequent: *día* > *diya* 'day.' Although these phenomena have been frequently commented, there are few detailed descriptions, and even fewer attempts at incorporating variable elision/epenthesis of /y/ within theories of Spanish phonology. The present study has a dual function: first, to offer a refinement of the observational data, and second, to suggest some tentative steps in the direction of characterizing Spanish dialectal variation in terms of phonological processes. It will be proposed that elision of /y/ results from the Obligatory Contour Principle, operating on an autosegmental tier defining front vowels and /y/. This claim in turn depends upon a model of phonological underspecification of Spanish vowels and glides. The remainder of the discussion proceeds as follows: Section 2 provides data on elision of /y/; Section 3 provides data on epenthesis of /y/; Section 4 discusses underspecification of Spanish vowels and semivowels; Section 5 describes elision of /y/ in terms of underspecification and the Obligatory Contour Principle; Section 6 establishes the parallels with hypercorrect insertion of /y/; Section 7 summarizes the discussion.

2. The elision data in detail

There is both regional and idiolectal variation as regards the phonetic context of elision of /y/, which together with generally sketchy published observations renders problematic the expression of the basic data. Using data from Mexican-American Spanish, Ross (1980) defines two partially overlapping environments: contact with a preceding or following /i/, and contact with a preceding /e/:[3]

(1)

silla	[sía]	'chair'
grillo	[grío]	'cricket'
billete	[bi̯éte]	'bill (money)'
patilludo	[pati̯úd̯o]	'having long beard/sideburns'
gallina	[gaína]	'chicken'
bollito	[boíto]	'small bun'
sellito	[seíto]	'little seal'
bullicio	[buísi̯o]	'loud noise'
sillita	[s(i)íta]	'little chair'
sella	[séa]	'(s)he seals'
sello	[séo]	'seal'
leyes	[lé(e)s]	'laws'
velludo	[beúd̯o]	'hairy (arms, legs, etc.)'
bellísima	[beísima]	'very beautiful'

Similar behavior also occurs in parts of Argentina (Vidal de Battini 1949: 47), El Salvador (Canfield 1960), Nicaragua (Lacayo 1954) and Honduras (Lipski 1987).

In New Mexican Spanish, Espinosa (1930: 197-99) described loss of /y/ in all the environments in (1), plus in /eye/, /aye/ (e.g., *calle* street') and less frequently /oye/ (e.g., *oyendo* 'hearing'). In Colorado Spanish, Espinosa even found loss of /y/ between two non-front vowels, providing neither was /u/; Henríquez Ureña (1938: 352-53) described similar behavior for parts of Mexico and Guatemala, while Oroz (1966: 135-36) found the same patterns of elision in southern Chile.

*Articles for this section may be sent to Prof. Jorge Guitart, Dept. of Modern Languages, SUNY at Buffalo, Buffalo, NY 14260. Please send a typed original and copy for each paper submitted and include a self-addressed envelope and loose stamps to cover return mailing of the manuscript. Maximum length is 20 double-spaced pages.

Finally, there are some Spanish dialects in which /y/, is elided only in contact with /i/, and only rarely if at all in contact with /e/ (e.g., Suárez 1945: 68, Toscano Mateus 1953: 102-03). Given the high degree of variability, particularly in nonstandard varieties, it is difficult to reconstruct the exact route of evolution, but it is likely that elision of /y/ first began following /i/, was later generalized to the mirror-image environment, still later generalized to include elision after /e/, and in a few dialects has generalized to include elision before and after both /e/ and /i/. Elision of /y/ in contact with a following /e/ is frequently impeded when the first vowel is /u/ or /o/, which together with the implicational data just stated suggests that the first vowel exercises greater influence on behavior of intervocalic /y/. In contrast to the previously mentioned cases, elision of /y/ between two non-front vowels is much more sporadic, is limited to a few lexical items in each dialect, and by all evidence is a manifestation of general deletion of intervocalic consonants, rather than being tied to the quality of the surrounding vowels. In the following analysis, which will not refer specifically to individual dialects, elision of intervocalic /y/ will be assumed in contact with a preceding or following /i/ or /e/, this being the obvious generalization. Dialects exhibiting other patterns can be included through appropriate modifications to the theoretical model to be developed below, which is not crucially dependent on interdialectal variation.

3. Intervocalic epenthesis of /y/

Frequent in weakly monitored/nonstandard speech of Spanish dialects characterized by elision of intervocalic /y/ is epenthetic insertion of /y/ in hiatus combinations which precisely duplicate environments for elision of /y/ (Flórez et. al. 1969: 93; Toscano Mateus 1953: 103; Canfield 1960, Rabanales 1950, García Fajardo 1984: 51-52, etc.):

(2)

caer > cayer	'to fall'
leer > leyer	'to read'
día > diya	'day'
vea > veya	'look (imp.)'
maíz > mayiz	'corn'
creía > cre(y)í(y)a	'I believed'
viuda > viyuda	'widow'
tío > tiyo	'uncle'

For a subset of speakers in the dialects in question, elision and epenthesis have progressed to the point where it might appear that /y/ is no longer in the underlying representation of the words in question, so that, for instance, *leyes* 'laws' and *lees* 'you (fam).) read' are now homophones at the underlying level.[4] For most speakers, however, this extreme restructuring is approached only asymptotically, but the symmetry with respect to elision to /y/ remains.

4. Spanish /y/ and underspecification

The status of Spanish glides which alternate with consonants (e.g., *ley* [li̯] 'law' vs. *leyes* [leyes] 'laws') has been the subject of considerable theoretical discussion.[5] In contrast, the status of morpheme-internal intervocalic /y/ has inspired a greater consensus, with the major points of discord being the alternative specification of this element as an underlying consonant [+ consonantal] or as an underlying (nonsyllabic) [+vocalic] element which is subsequently 'promoted' to full consonantal status when onset-initial.

In Spanish dialects where elision of intervocalic /y/ does not occur, the resulting segment invariably has consonantal characteristics, ranging from fricative to affricate articulation, and it is feasible to postulate an underlying consonant (cf. Harris 1983: 61), specified [+ consonantal] or an equivalent designation, and corresponding to a C slot on the skeleton. On the other hand, dialects such as those of Central America present an intervocalic segment which is more transparently a semivowel [i̯]. Theories of phonological underspecification offer new ways of viewing the relationship between full vowels and semivowels/glides. In particular, the distribution of, e.g., Central American Spanish intervocalic /y/ vis-à-vis the full vowel /i/ can be accounted for by underspecification of the feature [syllabic]. What emerges as intervocalic /y/ in these dialects is underlyingly unspecified for syllabicity, thus corresponding to a C slot on the skeleton (e.g., Steriade 1984), but specified [−consonantal] (cf. also Hyman 1985: chap. 6; Guerssel 1986, who, however, postulate no underlying values for syllabicity). Syllabicity (in this case [−syllabic]) is supplied by a process such as Steriade's (1984) 'CV rule.' The remaining features associated with /y/ are those which define vowels.

Assuming a model of radical underspecification of the Spanish vowel system (cf. Archangeli 1984, 1988), it is possible to have one

maximally underspecified vowel, containing no articulator feature specifications. Considerable evidence points to /e/ as the 'neutral' vowel of Spanish, this being the vowel predictably inserted in all processes of prothesis and epenthesis (Harris 1985, 1987), and most frequently lost in processes of vowel reduction (Lipski 1989).[6] The articulatory features characterizing [i̯] are identical with those defining [i]; it might therefore be surmised that underspecification of syllabicity entails that /y/ be underlyingly identical with /i/. However, I maintain that (at least intervocalically), /y/ is to be represented the same as the default vowel /e/, i.e., with no supralaryngeal feature specifications; the value [-back] is supplied by the same redundancy rule that fills in the matrix associated with /e/, while [+ high] arises from a redundancy rule which eventually assigns [+ high] to nonsyllabic vowels.[7] This analysis of /y/ is supported by the nature of the /y/-dropping process, as shown below.

An analysis of /y/-dropping as a result of the Obligatory Contour Principle (OCP), to be motivated shortly, requires that the feature value [-back] form a separate tier at some point in the derivation. In models in which /e/ is the maximally underspecified vowel, /e/ and /i/ are not underlyingly specified for frontness; this value is supplied by a redundancy rule. Bearing this in mind, the subsequent analysis can take two different directions. The first involves choosing an alternate set of underlying specifications in which /i/ and /e/ are specified [-back] (e.g., the model of Vago 1988 in which /a/ is the default vowel). The second allows for operation of the OCP on a tier defined by values which are not present underlyingly, but rather introduced by feature-filling rules. The evidence in favor of default status for Spanish /e/ is compelling, while there is much justification for the intermingling of feature-filling redundancy rules and phonological rules (cf. Archangeli 1984). Therefore I adopt as a working hypothesis the application of the OCP on tiers representing feature values not present underlyingly, together with the following underlying feature specifications and rules for Spanish vowels:[8]

(3)

a.

	i	e	a	o	u
high	+				+
low			+		
back				+	+

b. [ ] ⟶ [-back]
c. [ ] ⟶ [-high]
d. [ ] ⟶ [-low]
e. [+low] ⟶ [+back]

The behavior of intervocalic /y/ in Spanish suggests an intimate connection between the phonological specification of /y/ and the specification of the adjacent vowels. As noted in Section 2, there are two fundamentally different processes resulting in elision of intervocalic /y/. The first process, represented by only a few extreme cases, potentially involves loss of *all* instances of intervocalic /y/, including between two low vowels (*calla* '(s)he is quiet'), between two non-front vowels (*caballo* 'horse'), and so forth. At work here is (variable, lexically constrained and idiosyncratic elision operative irrespective of the surrounding vowels. Such a process has no immediate consequences for underspecification theory, and will not be discussed further.[9]

The second process, of central concern to the present endeavor, involves loss of /y/ in contact with front vowels. The minimal feature specification [front] is involved in these cases,[10] so that one could postulate that in contact with a [front] vowel the (maximally underspecified) feature matrix underlying /y/ receives the value [front] through autosegmental spreading from one of the contiguous vowels. While formally possible, this approach has drawbacks which are not outweighed by possible advantages. First, it requires that superficial [y] be given two fundamentally different derivations depending upon the surrounding environment, an undesirable consequence unless independent justification can be offered. Assuming default left-to-right spreading, such an approach gives no ready explanation for putative spreading of [front] from a FOLLOWING vowel (as in *gallina*). More importantly, there is no principled explanation of why only [front], and not other features, spreads to the empty matrix. In the absence of evidence to the contrary, I therefore assume that the [front] specification of intervocalic /y/ results from application of (3b), while the eventual [high] value arises through the application of a later rule.

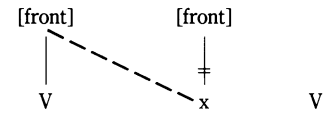
5. A revised analysis of elision of /y/

At the root of elision of intervocalic /y/ is the juxtaposition of phonological matrices containing the [front] specification. This pattern of behavior is the signature of the Obligatory

Contour Principle (OCP), and avoidance of OCP violations is proposed as the principal motivation for elision of [y]. In essence, the OCP is a constraint against adjacent identical phonological matrices, requiring instead multiply-linked configurations: 'at the melodic level, adjacent identical elements are prohibited' (McCarthy 1986). Although some investigators have questioned the validity of the OCP, or at least its exceptionless nature (e.g., Odden 1986), it is supported by considerable evidence and is not easily replaced as a theoretical constraint. Also at issue is the degree of phonological similarity required to trigger the OCP. In addition to complete identity of phonological matrices, the existence of 'long distance' OCP effects motivates claims that other tiers, defining individual features, articulator nodes or higher notes (using a model of feature geometry such as Clements 1985 and Sagey 1986), can also be subject to the OCP (cf. Yip 1988). There is finally the question of the level(s) at which the OCP must apply. In some versions, the OCP is primarily a morpheme structure constraint, operating at the lexical level and permitting violations that arise from the application of phonological rules. Other versions see the OCP as remaining in force throughout the entire derivation (with the possible exception of low-level phonetic implementation rules). Tied to this question is the means by which OCP violations are avoided/remedied. One notion is the filter, disallowing combinations which would produce OCP violations. Closely related is rule blockage, where rules that would produce OCP violations simply fail to apply to forms which otherwise meet their conditioning environments. Another possible escape route, for which there exists evidence from many languages, is detachment of one of the offending matrices, followed by change of feature values (dissimilation) or reattachment to the other matrix (assimilation), producing a multiply-linked structure. The behavior of Spanish intervocalic /y/ in the dialects under question illustrates the last possibility.

Since elision of Spanish intervocalic /y/ occurs in contact with /i/ and /e/, it is clear that complete identity of phonological matrices is not required, but only a [front] specification. For these dialects, [front] forms a separate tier, on which OCP effects manifest themselves. In those instances where /y/ occurs in contact with a [front] vowel, OCP violation is avoided through delinking one of the slots from the [front] tier and spreading [front] from one of the neighboring vowels, creating a multiply-linked structure. This is shown schematically in (4) in the case where the first vowel is [front], but the rule also operates in the mirror-image environment:

(4)



It might be postulated that elision of /y/ is a single-stage process, namely delinking not followed by spreading, resulting in eventual deletion of the corresponding skeletal slot. However, words affected by (4) interact with low-level resyllabification rules, as well as with fast-speech rules raising unstressed /e/ and /o/ in hiatus: *teatro* [tia̯-tro] 'theater,' *poesía* [pue̯-sí-a] 'poetry' (Navarro Tomás 1967: 68 f.). At times, /y/-deletion appears to operate after the processes just described. Thus, it is relatively uncommon for an unstressed [i] brought into hiatus through elision of /y/ to form a new diphthong: *gallinazo* 'parasitic plant' is usually [ga-i-ná-so) rather than [gai̯-ná-so]. *Sellado* 'sealed' is routinely pronounced as [se-á-do], but very seldom as [sí-á-do] and virtually never as *[sia̯do]. Similarly, the hiatus created through elision of /y/ in *bi(ll)ete* 'bill' is rarely resyllabified as a diphthong (cf. *siete* 'seven'). However, exceptions to some of the above-mentioned restrictions occasionally arise in rapid speech, suggesting that low-level rules take as their input structures to which (4) has already applied. Since tier conflation, after which a [front] tier is no longer available to trigger OCP effects on /y/, occurs before the application of fast-speech rules, this variability requires explanation. I propose that it is precisely the linking of multiple skeletal slots to a single autosegment, as in (4), which in conjunction with other phonological processes in Spanish, provides the basis for a principled explanation.

Assuming that the [high] specification of /y/ is added by a relatively late application of 'glide raising,'[11] then at the point of application of the OCP, /y/ is only specified as [front]. Detachment of this feature in effect detaches the entire Dorsal articulator node. The slot corresponding to /y/ is reattached to the [front] tier via a neighboring vowel, but acquires no other feature specifications at this

time. Glide-raising, however, cannot apply to a multiply-linked matrix (given, e.g., the Linking Constraint of Hayes 1986 or the Uniform Applicability Condition of Schein and Steriade 1986), and there is no other way for a [high] specification to subsequently arise. A nonsyllabic segment thus emerges from the phonological component specified only [front], with no way to acquire other place of articulation features except through low-level nondistinctive and incidental spreading from adjacent segments. The possible articulatory results of such a configuration include merger with one of the surrounding [front] vowels, perhaps while retaining at least some of the duration of the nonsyllabic element, as well as some sort of glide pronunciation in virtue of the nonsyllabic status of /y/. This analysis predicts a high degree of variability in pronunciation, together with a continuum of length variation, ranging from that of a single vowel to that of a full diphthong; the observational data bear out these predictions.

As a consequence of this portrayal, elision of /y/ results from the concerted action of TWO mechanisms: the creation of multiply-linked structures via rule (4), resulting from application of the OCP early in the derivation, and phonetic implementation rules which at times merge /y/ with an adjacent vowel. Creation of new diphthongs from instances of unstressed [i] brought into hiatus through elision of /y/ can in principle be impeded, since the slot associated with /y/ remains throughout the derivation, although implementation rules may deprive it of phonetic substance.

6. Epenthesis of /y/: the other side of the coin

Insertion of /y/ to break certain hiatuses is not a priori tied to loss of intervocalic /y/ (particularly since insertion of other hiatus-breaking consonants is frequent in the history of Spanish; cf. Malkiel 1958), but the existence of a correlation between the two phenomena is supported by two powerful bits of circumstantial evidence. First, epenthetic /y/ occurs in the same dialect zones in which intervocalic /y/ is subject to loss. Second, epenthesis of /y/ occurs in precisely the same vocalic environments that condition loss of /y/.[12] The appropriate account of /y/-epenthesis is adjunction of an unspecified (vocalic) skeletal slot in the proper environment (between two vowels, at least one of which is [front], followed by application of the redundancy rules in (3). The resulting combination then incurs the effects of the OCP, including application of (4), thereby manifesting the same range of phonetic realizations as underlying /VyV/. This is shown in (5), where % symbolizes a mirror-image environment:

(5) $\emptyset \longrightarrow x \;\%\; V \;\_\_\; V$

[front]

The potential reversibility of epenthesis and elision of /y/ underscores the fact that in this group of Spanish dialects, the feature [front] forms a separate tier which governs the superficially variable appearance of /y/.

7. Summary and conclusions

The following claims have emerged from the preceding discussion:

(a) In Spanish dialects characterized by elision of intervocalic /y/, this segment is not underlyingly specified as C, but rather as a minimally specified V.

(b) the eventual [front] specification of /y/ arises through a feature-filling rule defining the default vowel, while [high] comes about through a subsequent rule which raises nonsyllabic vowels.

(c) In contact with another [front] segment /i/ or /e/, operation of the Obligatory Category Principle on a [front] tier causes delinking of /y/ and linking to the [front] associated with the adjacent vowel.

(d) /y/ thus dually linked cannot acquire [high] through glide raising, and emerges from the phonological component with only a [front] specification. Phonetic implementation rules account for variable realization of this element, ranging from a full semivowel to total elision.

(e) Epenthesis of /y/ involves adjunction of an empty slot between a [front] vowel and another vowel, followed by application of feature-filling rules and subsequent OCP effects.

In summary, Spanish dialects in which /y/-dropping is frequent contain a maximally underspecified (and eventually nonsyllabic) vocalic slot instead of a consonantal slot underlying intervocalic /y/. This is in effect the 'parameter' separating /y/-dropping dialects from other Spanish dialects. Among those dialects in which /y/ emerges as a semivowel, elision in contact with front vowels is the usual

concomitant, so that OCP effects, rather than being parameterized, follow directly from the underlying specification of /y/.

The analysis just presented lends support to expanded interpretation of the OCP as operative on tiers defined by individual features, and to radical underspecification of the Spanish vocalic system. It also offers insight into the frequent loss/epenthesis of /y/ in contact with front vowels, phenomena which occur in many languages.

NOTES

[1]Although it will be established that the segment which emerges as surface [y] or [i] is in fact not phonologically distinguished from /e/, the following discussion will maintain the graphic convention of placing the element between slants: /y/; no independent phonemic identity is claimed for this element.

[2]For additional data and analysis, cf. Alonso (1967: 197-200), Alvar (1977), Barrutia and Terrell (1982: 151), Bowen (1974), Peñalosa (1980: 101), Predmore (1945), Sánchez (1972), Wilson (1971), Zamora and Guitart (1988: 95). Bowen (1974) indicates that the vowel preceding /y/ must be stressed in order for deletion of /y/ to occur. Ross (1980), on the other hand, finds no evidence that word stress has any effect on deletion of /y/. My own data reveal no consistent pattern, either for deletion of /y/ nor for insertion of nonetymological /y/, although in the latter case the presence of an accented vowel on either side of the inserted /y/ seems to slightly favor insertion: *maestro* > *mayestro* is more common than *maestría* > *mayestría*.

[3]Ross (1980) includes an additional stipulation, which filters out the change /eye/ > *[ee] as in *leyenda* 'legend,' although his analysis permits the combination /iyi/ > [ii] as in *sillita*.

[4]In most if not all instances, this is not a viable option, since alternations in other contexts reveal the presence or absence of an underlying /y/.

[5]Harris (1969: 24-25), Cressey (1978: 80-81). These authors, among many others, postulate both underlying /i/ and /u/, which may become glides under certain circumstances, and underlying /y/ and /w/). For acoustic data, see Borzone de Manrique (1976) and Quilis (1981). The present analysis does not address the issue of glides/semivowels in contexts other than intervocalic.

[6]Using data from an unusual Spanish dialect which exhibits vowel harmony, Vago (1988) offers an underspecification system in which /a/ is maximally underspecified. In other Spanish dialects, including those in which intervocalic /y/ weakens and disappears, there is no evidence in favor of maximally underspecified status for /a/.

[7]The possible existence of nonhigh glides in Spanish is the subject of some controversy, as is the exact mechanism of glide formation from an underlying vowel; cf. Cressey (1978: 27-28), Harris (1970), Hutchinson (1974) for some considerations. However, Spanish permits no morpheme-internal sequences of three vowels the middle of which is by any definition nonsyllabic, so that a rule of 'glide raising' operating on a [−syllabic] vowel between two [+syllabic] vowels encounters no counterexamples.

[8]I assume, in the following discussion, that redundancy rules are ordered as late as possible in the derivation, and that unspecified feature values are supplied by redundancy rules at the beginning of the first component where a phonological rule requires that feature specification in question (cf. Archangeli 1984, Pulleyblank 1986).

[9]There is another possibility, whose ramifications will not be explored here due to lack of adequate substantiating evidence. This involves specification of /a/ as [front] in dialects in which /y/ drops in the combination /ayo/, /aya/, etc. No reported Spanish dialect elides /y/ between two nonlow back (rounded) vowels, except in occasional lexical items (e.g., Henríquez Ureña 1938: 353). Thus it may be that in a few dialects/idiolects, elision of intervocalic /y/ occurs in contact with any [front] vowel, with /a/ added to the latter inventory. The actual point of articulation of /a/ in the dialects in question is not noticeably more anterior than in other regions, thus making the alternative analysis more abstract and hence more highly marked, *ceteris paribus*.

[10]Since the articulatory characteristic involved is frontness, and assuming an articulator-based model of distinctive features (e.g., Sagey 1986, Halle 1988, Ladefoged 1988) in which only monovalent specifications are used for the Dorsal tier (which among other things defines vowel height and frontness), I adopt the designation [front] instead of the formally equivalent [-back] for the remainder of the present discussion.

[11]Following well-established phonological principles (e.g., Archangeli 1984, Pulleyblank 1986), it is assumed that redundancy rules such as glide raising apply at the latest possible point in the derivation, namely the first point at which crucial reference is made to the feature specifications supplied by the rule in question. In the case of Spanish Glide Raising, there are no other phonological processes which require adding the feature [+high] to an underspecified [front] vowel until the application of low-level readjustment rules.

[12]Epenthesis/loss of /y/ follows the same pattern as loss/epenthesis of syllable-final /s/ as found in Caribbean Spanish dialects (Núnez Cedeño 1986, 1988; Terrell 1982, 1986), to the extent that for the most nonstandard speakers, the two processes may merge for certain lexical items, resulting in a single phonological representation for superficial manifestations with and without the consonants in question. In the case of /y/, this means in effect that all instances of surface [y] in the appropriate intervocalic environment would result from a rule of epenthesis such as (5) or, equivalently, that all appropriate superficial hiatus combinations contain an underlying glide which is variably deleted. Complete merger never occurs, except perhaps for a few words and a few speakers: false analogy and hypercorrection represent the exception rather than the rule, and normally carry a social stigma. Elision of /y/, on the other hand, is considered unremarkable in the areas in question, and is rarely discussed.

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