

Variability, multilectalism, and the organization of phonology in Caribbean Spanish dialects

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1. Introduction

Variability in phonology refers to the fact that a word may be pronounced differently on different occasions, even though the segments of the word are always in exactly the same phonetic environment. One example would be a word that ends in a consonant which is sometimes pronounced, sometimes not, despite the fact that the surrounding sounds are the same in every case.

Like other natural languages, Caribbean Spanish dialects show variability, especially in the pronunciation of consonants in coda position, the part of the syllable following the vowel or syllabic nucleus. It is precisely the pronunciation of coda consonants that is characteristic of Caribbean Spanish and certain other dialects that are not in this geographic region, but are related historically to Caribbean dialects (e.g., those of Panama and the Atlantic coast of Colombia). Not only are the phenomena affecting coda consonants in Caribbean Spanish of considerable interest in themselves, but also of great interest is the fact that the phenomena are variable. Linguists who have studied variability in Caribbean Spanish have assumed that it is due to the alternation of procedures belonging to the same phonological system, with this alternation being largely determined by factors outside the grammar. The view that I would like to advance here is that variability is an effect of the alternation of procedures belonging to different phonological systems, and this alternation is an effect of the uneven control that speakers have over those systems.

I will attempt to show that the phonetic behavior of Caribbean speakers with regard to coda consonants supports the following assumptions:

- a) Any Caribbean Spanish speaker who shows variability in the pronunciation of coda consonants has acquired more than one phonological system;

b) Caribbean Spanish speakers do not normally display equal control over the different phonological systems that underlie their pronunciation;

c) Uneven control is the cause of the variability observed and is manifested in the imperfect match between allophones and styles, a situation similar to that observed among second language learners and second language users who have fossilized;

d) Uneven control leads the average Caribbean speaker to switch from one phonological system to another in the course of speech, even midword, accounting for the variability observed for a given segment.

The specific organization of the phonology of Caribbean Spanish dialects is not at issue here. At present there are challenges to the long-held view that a generative phonology must contain phonological rules of a transformational nature. The challengers' view is that phonology is constraint-based rather than rule-based. But whether phonology is a set of rules applying in a derivational fashion or a set of constraints applying at once, a theory of phonological competence must contend in a principled way with the fact of variability. We will see shortly that variability poses a problem for any phonological model that assumes that speakers have only one phonological system for every language they speak.

2. Dropping, Neutralization, and Simplification of Coda Consonants in Caribbean Spanish

Caribbean Spanish is characterized by frequent manifestations of certain phonetic phenomena affecting consonants in coda position. In some instances a coda consonant is not pronounced at all. This phenomenon has been called *deletion* in rule-based phonology. I will refer to it here as *dropping*. Dropping of /s/ and /d/ in word final position is quite common, e.g., [kompá] for *compás*, 'beat', [mitá] for *mitad*, 'half'. Other coda consonants are dropped, but less frequently. Nasals may sometimes be represented by a nasalization without any oral gestures taking place, e.g., [bē̃] for *ven*, 'come'. The tap /ɾ/ may be dropped when it is the infinitival morpheme, e.g., [komé] for *comer*, 'to eat'. Dropping is less common word-internally. One example would be [dotór] for *doctor*, 'doctor'.

I am assuming here that any phonological system that is part of the grammar of a natural language includes two levels of representations: a phonetic level and an underlying level, and any theoretical model of such a system must be formulated in terms of these two levels. Now, Caribbean Spanish has coda

consonants in underlying representation, since morpheme-ending consonants that have been dropped in coda position appear when the same morpheme is not at the right edge of a word, e.g., [kompáse] for *compases*, 'beats', [mitáde] for *mitades* 'halves', [benían] for *venían*, 'they were coming', [koméremo] for *comeremos*, 'we will eat'. Another indication that coda consonants are present at the underlying level comes from the facts of variability: the same speaker may pronounce two different tokens of the same consonant-ending word and drop the consonant in only one instance, even within the same utterance, e.g., [dó, dós mése] for *dos, dos meses*, 'two, two months.'

The other phonetic phenomena affecting coda consonants in Caribbean Spanish can be subsumed under the label *phonetic neutralization*. Two phonologically distinct segments belonging to the same natural class are phonetically neutralized when both have exactly the same phonetic representation. In coda position in Caribbean Spanish this representation can be either a) a sound that is identical in its distinctive features to an onset allophone of one of the segments, e.g., both /l/ and /r/ may be pronounced [l], or b) a sound that in its distinctive features is unlike any of the onset allophones of the segments in question, e.g., both /s/ and /ʃ/ may be pronounced [h].

Perhaps the most conspicuous instances of phonetic neutralization in coda position in Caribbean Spanish are the following:

a) both voiceless fricatives /s/ and /ʃ/ may be realized as the glottal fricative [h], a phenomenon referred to as *aspiration*; e.g., [áhta] for both *asta*, 'flagpole' and *afta*, 'canker sore';

b) both liquids /l/ and /r/ may have the same manifestation, either by being realized as the palatal glide, [y], a phenomenon referred to as *liquid gliding* or *vocalization*, as happens in the Cibaeño dialect of Dominican; e.g., [séyda] for both *celda*, 'cell' and *cerda*, 'bristle', or by lateralizing /r/, a phenomenon known as *lateralization*, as happens in different dialects throughout the Caribbean; e.g., [álma] for both *alma*, 'soul' and *arma*, 'weapon', or by assimilating both /l/ and /r/ to the following onset, as happens in some Cuban dialects, e.g.; [púgga] for both *pulga*, 'flea' and *purga*, 'purge';

c) nonvelar stops and nasals may be realized as velar, a phenomenon referred to as *velarization*, observed for example among Cubans and Venezuelans; e.g., [péksi] for *Pepsi(Cola)*, [égniko] for *étnico*, 'ethnic', [iŋno] for *himno*, 'anthem', [alemán] for *alemán*, 'German (masculine)'.

The fact that coda consonants in Caribbean Spanish are phonetically neutralized only in a variable way (e.g., sometimes *arma* and *himno* are

pronounced [arma] and [imno] by the same speakers who may pronounce them as [álma] and [iɾno]) indicates that consonants still contrast in coda position at the underlying level.

Because both dropping and phonetic neutralization reflect apparent trends, however unfulfilled, towards a simpler phonological system, I will use the term *simplification* in the remainder of the paper to refer globally to both dropping and all phenomena subsumed under phonetic neutralization.

3. The Mixing of Radical and Conservative Realizations in Caribbean Spanish

Given that coda consonant simplification is highly frequent in Caribbean Spanish, an interesting question is whether Caribbean Spanish is evolving toward a phonological system that has no coda consonants. The phenomena subsumed under phonetic neutralization perhaps reflects a trend toward some sort of compromise between retention and elimination in which there would still be coda consonants, but only one per class (as Chela Flores (1986) has hypothesized), i.e., one stop, which would be velar; one nasal, which would also be velar; one fricative, which would be laryngeal; and one liquid, which perhaps would be lateral. Or maybe there would be no liquids in coda position (cf. liquid gliding).

There is evidence that simplification was already occurring in Caribbean Spanish more than four centuries ago (see Boyd-Bowman 1975) and a good question is why no Caribbean Spanish dialect presents a simpler system after all this time. What has prevented Caribbean speakers from reducing the inventory of coda consonants or from getting rid of coda consonants altogether?

One factor inhibiting the formation of a simpler consonant system for Caribbean Spanish may be the influence of orthography on pronunciation. The Spanish orthographic system reflects the phonological system of Castilian, a dialect where dropping and neutralization are not nearly as extensive as in Caribbean Spanish. For example, there is no dropping of word-final /s/ in Castilian, no neutralization involving /s/ and /ʃ/, and no liquid neutralization of the kind that occurs in Caribbean Spanish.

If we refer to phonetic realizations showing simplification as *radical* and to realizations that do not show simplification as *conservative*, we can say that Caribbean Spanish is considerably more radical than Castilian. At the same time, since, as we have seen, the phonological contrast between segments affected by dropping and neutralization still exists at the phonological level, the underlying

representation of lexical items in Caribbean Spanish apparently does not differ greatly from that of Castilian. Presumably, awareness of the orthographic code (whether conscious or unconscious) leads literate speakers to both preserve distinctness in coda consonant representations at the phonological level and realize these consonants as their nonsimplified versions, at least part of the time. Precisely one interesting aspect of Caribbean Spanish pronunciation is that speakers 'mix' radical and conservative realizations of the same underlying coda consonants, with the radical realizations being more frequent overall. However, in certain contexts, for example, in formal speech, the opposite may occur and conservative realizations may be more frequent than radical ones.

4. The Phonological Characterization of Coda Consonant Simplification in Caribbean Spanish

Assume for the moment that to each particular dialect there is only one grammar, containing one and only one phonological system. I believe that all generative phonologists who think that phonology is rule-based and at least some phonologists who reject rules entirely in favor of constraints—including the proponents of Optimality Theory (henceforth OT), to mention what appears to be the most widely accepted constraint-based approach—would share two assumptions regarding the form of the phonological system. The first assumption is that the phonological system includes elements, and principles and procedures, with the principles and procedures determining the shape of elements in actual pronunciation. The second assumption is that the elements affected by some of those procedures are underlying lexical items containing phonological information which remains invariable in synchronic use. That is to say, at least until a language changes with respect to the phonological content of a given lexical item, the underlying representation of a morpheme remains the same, even if the morpheme is pronounced in different ways when it combines with other morphemes in words or phrases.

How would the facts of coda consonant simplification in Caribbean Spanish be characterized in a model based on those two assumptions? For the sake of simplicity, let me refer only to the characterization of word-final consonant dropping. In what follows I would like to show how word-final dropping has been characterized in rule-based phonology and how it must be characterized in OT. For each model I will show how its characterization of consonant dropping fails to account for the facts of Caribbean Spanish if it is maintained that each particular dialect contains one and only one phonological system.

5. Coda Consonant Dropping in Rule-based Phonology

The characterization of word-final dropping in rule-based phonology is done by positing a rule of deletion, a phonological transformation operating upon an underlying form that contains the consonant. The rule specifies that an underlying consonant in coda position will not have any phonetic representation. Every word-final consonant in Caribbean Spanish meets the structural description of such a rule. (For rule-based descriptions of Caribbean Spanish phonological phenomena see for example Guitart 1976, Núñez Cedeño 1980, and Zamora and Guitart 1988.)

The problem is that in actual pronunciation Caribbean Spanish speakers do not drop word-final consonants automatically. Data from numerous variability studies on Caribbean Spanish show that for any group of speakers, dropping never occurs one hundred percent of the time, even in spontaneous, unguarded speech. This is true, for instance, of word-final /s/ (See Cedergren 1973, Terrell 1979, and Alba 1982b for data from three different Caribbean Spanish dialects). In a certain number of instances the rule of deletion fails to apply to segments that meet its structural description. There is no explanation, internal to the grammar, for why the rule does not apply.

Since, in a rule-based phonology, the form of phonetic representations is determined primarily by rules, when deletion does not apply to a word-final consonant, other rules have applied instead. Consider the case of word-final /s/. It may be deleted, but it may also be aspirated, i.e., pronounced as [h], or it may be pronounced as [s]. When /s/ is aspirated instead of deleted, a rule of aspiration has applied. The rule of deletion and the rule of aspiration refer to the same type of segment in the same phonetic environment. There is no grammar-internal explanation for why sometimes one rule applies instead of the other. There also is no grammar-internal explanation for why sometimes neither rule applies and /s/ is realized as [s]. In the latter case, there must be a rule specifying that the segment is pronounced as a voiceless alveolar fricative in coda position. Therefore, there are at least three rules that inexplicably alternate in their application to the same segment in the same context. None of these three rules is descriptively adequate when all the possibilities for /s/ are taken into account.

Suppose we constrain the application of each one of these rules to a different 'style' of pronunciation defined in terms of speed and relative self-monitoring, and say that deletion occurs only in very fast unguarded speech, aspiration in moderately fast speech that is also unguarded, and retention in slow, careful

speech. The problem with this solution is that Caribbean Spanish speakers sometimes delete or aspirate /s/ in slow speech in formal situations (e.g., when reading words aloud from a list) and retain /s/ in unguarded speech (see Ma and Herasimchuk 1971). The construct of style is unable to correct the deficiency of the rules in question.

6. Coda Consonant Dropping in OT

Like other constraint-based models, OT does not contain phonological transformations, i.e., rules that may insert or delete segments or change feature values. Rather, there is a set of phonological constraints common to all natural languages, and these constraints act as filters in the relationship between underlying representations and surface forms. Constraints in OT may be positive or negative. A positive constraint is, for example, 'syllables must have onsets', expressed as Onset. A negative one is 'syllables must not have codas', expressed as *Coda. In OT, the phonological portion of a grammar consists primarily of two components, a generator, GEN, and an evaluator, EVAL. Constraints belong in the latter. Given an underlying form (consisting of one or more morphemes containing phonological information), GEN simultaneously generates an unordered set of *candidates* for surface form and these candidates are the input to EVAL. EVAL, which includes the set of constraints, evaluates the different candidates, but the constraints do not apply serially, as rules would in a rule-based approach. Rather they apply simultaneously, in parallel fashion. On the other hand, constraints are always ranked in a hierarchy. A higher constraint exerts a greater influence than a lower constraint in the evaluation process. For any particular language, ranking is fixed and invariable, but ranking varies from language to language. This implies that ranking is parametrized. Suppose A, B, and C are constraints. One language may show the ranking $A > B > C$ (A is ranked over B which is ranked over C.) In another language the ranking may be $B > C > A$; in a third language the ranking may be $C > A > B$, etc. It may be the case that some constraints are highly ranked in every language. For instance, it is possible that Onset and *Coda rank highly in all languages, since all languages have CV syllables.

Of all the candidates generated by GEN and evaluated by EVAL, only one is identical to the surface form. This is the *optimal candidate*. The other candidates will be eliminated because they violate some significant constraint. However, the optimal candidate may violate constraints. For instance, there are surface forms

that contain syllables of the V or VC types. Both types of syllable violate Onset and VC violates *Coda. The crucial difference between the optimal candidate and the candidates that did not 'make it' to the phonetic surface is that the unsuccessful candidates violated more highly ranked constraints than those violated by the optimal candidate. To illustrate, suppose that in a language, Onset is ranked higher than *Coda, and suppose that the underlying morpheme is /popol/. GEN generates, among others, the candidates pop.ol and po.pol for this morpheme. Now pop.ol violates Onset because the second syllable does not have an onset, and it also violates *Coda because the second syllable has a coda. But po.pol does not violate Onset, though it does violate *Coda. The optimal candidate is po.pol because it did not violate the higher constraint Onset. Now, Onset constitutes for unsuccessful pop.ol the *fatal constraint*, meaning the constraint whose violation rules out a candidate as the optimal candidate.

Sometimes, all candidates violate the same constraints and the same low optimality is decided on the basis that one candidate shows fewer violations. Consider the following example, which incidentally illustrates how consonant dropping can be handled in OT. Suppose that a Caribbean Spanish speaker pronounces the word *inglés*, 'English'—the masculine adjective—as [in.glé]. This is a single-morpheme word. However, its underlying representation must be /ingles/, since the same speaker says [in.gle.sa] for *inglesa*, the feminine adjective. GEN generates several candidates for the surface form of *inglés*, among them [in.glé] and [in.glés]. There are other candidates, e.g., [ing.lé], [i.nglé], [i.ng.lé.s], [ing.lé.s], [ing.lés], etc., all of which will meet some fatal constraint, but I will skip the details for the sake of simplicity. Now, [in.glés] and [in.glé] both violate Onset and *Coda, but the form without final /s/ shows only one violation of *Coda whereas the form ending in /s/ shows two violations. And that is why the form without /s/ is the optimal candidate and is the one that is realized in the phonetic surface (for OT in general see Prince and Smolensky 1993, and for an OT treatment of Spanish phenomena see Morales-Front 1994.)

In general, if a language does not have coda consonants (for example, as in the case of Hawaiian), it means that *Coda is ranked higher in that language than constraints that would not disallow coda consonants. In such a language, if any two forms, X and Y, generated by GEN for a given underlying form, Z, are identical, except that Y has an additional final consonant (e.g., X is *papa* and Y is *papak*) then X will be the optimal candidate—it will be the surface representation of Z—and Y will be fatally constrained by *Coda.

The OT model would account nicely for coda consonant dropping in Caribbean Spanish, were it not for the variable nature of dropping. An invariable ranking showing *Coda higher adequately describes every instance of word-final consonant dropping but is descriptively inadequate for the cases in which the same word is pronounced with a consonant at the end.

7. A Thought Experiment about Bilinguals and Bilectals

Suppose now that a native speaker of a language that has no coda consonants, let me call it L-a, acquires successfully another language, L-b, after having acquired L-a. That is to say, L-b is the second language (henceforth L2) of this speaker. Now, L-b has coda consonants in word-internal position but not in word-final position. Suppose that in L-b the word *mu* means 'house', *ka* means 'ware' and the plural morpheme is *i*. Suppose further that 'houses' is pronounced *mumi* and 'houseware', which is a single word, as in English, is pronounced *mumka*. Given these facts, both rule-based phonologists and OT phonologists would agree that in L-b the underlying form of the morpheme for *house* is /mum/. A rule-based-phonologist would say that Language B has a word-final consonant deletion rule, whereas an OT phonologist would say that constraints are ranked in L-b in a way that allows codas word-internally but not word-finally. In spite of these differences, rule-based phonologists and OT phonologists would agree that an L-a/L-b bilingual possesses two different grammars and therefore two different phonological systems. When the successful L2 learner speaks L-b, s/he does not use the grammar of L-a, but rather the grammar of L-b, which is why she never mispronounces, *mumka* as *[muka].

Suppose now that another native speaker of L-a acquires L-b as an L2, but not as well as the first one, because s/he can communicate adequately in L-b, s/he has a foreign accent when s/he speaks it. For instance, s/he tends to pronounce 'houseware' as *[muka] instead of [mumka]. However, s/he does not do this all the time and sometimes pronounces the same word correctly. Suppose we assume that whenever s/he speaks Language B s/he uses a single grammar. Within a rule-based framework we would have to say that when s/he says *[muka] for *mumka*, a rule of deletion has applied, and so the singular phonology of her/his nonnative-like version of L-b includes this rule, which actually does not belong in the native inventory of L-b. But we would have no system-internal explanation for the cases in which s/he pronounces the word correctly. Within the OT framework, we would have to say that in the incorrect pronunciation, *[muka] for *mumka*,

constraints are ranked so as to disallow codas. Suppose an OT phonologist, who assumes that the underlying representation of the word in question is /mumka/, knows only of cases in which the speaker says *[muka]. The OT phonologist will have to say that the speaker has acquired a ranking that disallows codas. However, since for any single phonological system ranking is fixed and invariable, the same OT phonologist would have no explanation for the cases where the same speaker says, correctly, [mumka].

Now suppose that this not-so-successful L2 learner has internalized two distinct phonological systems for L-b. This means that s/he has two different grammars of L-b. These two grammars may or may not share the same lexicon, morphology, or syntax. One of these grammars shows no phonological influence from L-a but the other one does. The speaker has imported from L-a principles and procedures that disallow coda consonants. This speaker in a sense speaks two varieties of Language B, one allowing word-internal coda consonants and one not. I will refer to these varieties as *lects* rather than dialects, because their relative use is not necessarily associated with living in a given geographical location or belonging to a certain social class. Lect 1 is the one that is closer to Language A. Lect 1, like L-a, does not have coda consonants. Lect B does have coda consonants, but only word internally. Our L2 learner with a variable accent is *bilectal*, in addition to being bilingual.

Now, if you prefer a rule-based framework, you can say that Lect 1 contains a coda deletion rule that applies to codas regardless of their position within a word, and Lect 2 contains a different deletion rule whose structural description specifies word-final position as the environment of application. In other words, the rule inventories of Lect 1 and Lect 2 are different. If you prefer the OT framework, you can say that in Lect 1 constraints are ranked so as to disallow coda consonants in any position, but in Lect 2 they are ranked so as to disallow them only at the right edge of a word. That is to say, in L1 and L2 constraint ranking has been parametrized differently.

Now suppose that L-b encodes the phrase 'ceramic houseware' in a single word, *akmumka*, where the morpheme for 'ceramic' is *ak*. Native speakers of L-b pronounce the word invariably as [ak.mum.ka]. However, our imperfect L2 learner shows at least three pronunciations for *akmumka*. In a very few instances s/he pronounces the word correctly, other times says [a.mu.ka], dropping both codas, and sometimes says [ak.mu.ka], dropping only the second coda. Sometimes s/he "hypercorrects" and says [ak.mum.kam]. But let me focus on the pronunciation [ak.mu.ka]. The speaker applies the procedures of Lect 2 (the

farther from her/his native L-a) to the first syllable, but applies the procedures of Lect 1 (the closer to her/his native L-a) to the second syllable. That is to say, the speaker switches between lects in the middle of a word. This is akin to bilinguals switching between languages within an utterance and even within a sentence—the phenomenon known as *code-switching* (see Poplack 1980). The switching between lects in midword is an instance of *phonological code-switching*.

Consider now that bilinguals who code-switch regularly at the syntactic level are normally not what some linguists have called *balanced bilinguals*. Rather they are what I will call *imperfect bilinguals*. Imperfect bilinguals have a dominant language, which is usually their native language, called the first language, or L1, which they speak with native-like ability. In their other language, their L2, which is their nondominant language, they show some degree of phonological deviation (they have a 'foreign accent') as well as some degree of deviation regarding other parts of the grammar (sentences that are incorrect by native standards).

There are some significant facts to be noted about the linguistic behavior of the average code-switcher. Some of these facts pertain to syntax and some to phonology. First, consider that code-switchers are able to keep the two languages syntactically distinct even in conversation, since whenever switching is not intrasentential, at least simple sentences are entirely either in L1 or L2. Furthermore, switchers use in their L2 syntactic structures that do not exist in their L1. These structures are either unlike, identical, or similar in some degree to those of L2 as spoken natively. Consider also that code-switchers show sounds in their L2 that do not exist in their L1. These sounds are either unlike, identical, or similar in some degree to those of L2 as spoken natively. Furthermore, switchers may show phonological procedures in their L2 that do not exist in their L1. For instance, native speakers of Spanish flap the coronal stops *t* and *d* when speaking American English as an L2.

The facts just cited strongly suggest that imperfect bilinguals who code-switch have acquired at least two different grammars and at least two different phonological systems. There are no grounds to suppose that code-switchers have a single grammar and therefore a single phonology. There are also no grounds to suppose that they have a single phonology shared by two different grammars.

It would be possible to calculate the relative frequency with which a code-switcher uses each language in relation to a number of extragrammatical factors, such as the situation that the speaker is in, the topic being discussed, and the sex, social class, and educational level of the speaker. The results of these calculations

would tell us a great deal about the use of language in society, but they would tell us nothing about the system or systems that underlie the switcher's knowledge. However, if the focus is on the relationship between the observable facts of language use and the equally observable facts of topic, situation, social class, etc., it is irrelevant to ask how many grammars the speaker has internalized or whether the speaker switches between grammars or simply between procedures within a single grammar.

Regarding phonological alternations within a single language, the assumption of those primarily interested in the relationship between language use and extragrammatical factors is that monolingual speakers who know only one dialect of a given language know only one grammar. This is precisely the position of quantitative sociolinguists, or linguists operating under the framework developed by William Labov and his followers (see Labov 1972, Silva Corvalán 1989), whom I will refer to as *Labovians* here. To my knowledge, Labovians who have analyzed the pronunciation of Caribbean Spanish have assumed that any person who speaks a single dialect of Caribbean Spanish (whether described geographically or socially) is not, in my terms, *bilectal*, but is instead *monolectal*, possessing only one grammar.

Labovians do not recognize the possibility that a Caribbean Spanish speaker who speaks only one dialect may be switching between two different phonological systems when s/he says, for example, [as.beh.to] for *asbesto*, 'asbestos', where the first coda is not simplified but the second coda is (cf. our imaginary example [ak.mu.ka]).

8. Variability and Procedural Failure

Labovians have characterized variability in terms of *variable rules*. These are not rules, but statistical statements about the probability of each allophone occurring in relation to a number of linguistic and extralinguistic factors. Consider the simplification of /s/ in Caribbean Spanish. Labovians say that there is a variable S with three manifestations, [s], [h] and [Ø], the latter, the 'zero' allophone, signifies the absence of the segment (in my terms, the case in which /s/ is dropped). However, some Labovians have referred to two rules that serve to characterize the two manifestations of /s/ simplification. These rules are called Aspiration and Deletion. Cedergren (1983) proposes that the two rules are as shown in (1) rather than as shown in (2):

- (1) a. s → h
 b. s → ø
- (2) a. s → h
 b. h → ø

The analysis in (1) is preferred by Labovians because it is less abstract and it is based entirely on the facts. The analysis in (2) involves an intermediate abstract step, an [h] that is never manifested on the phonetic surface but it is posited to be the input to Deletion. Labovians speak of deletion and aspiration as processes. Therefore the rules in (1) are regarded as dynamic mechanisms, not simply as expressions of static relations between an underlying form and its different phonetic manifestations. On the other hand, there is no attempt within the Labovian framework to find explanations for why the processes of deletion or aspiration alternately fail. However, Labovians do not think of variability in terms of procedural successes or failures. Rather, they regard the alternation between conservative and radical realizations as a manifestation of the inherently variable character of human language. On the other hand they also regard such an alternation as a symptom of competing diachronic trends. One trend is towards changing the present pronunciation system and another towards leaving it unchanged. If a given alternation disappears historically, it is because an entire speech community has adopted a new system.

But the status of coda consonants in Caribbean Spanish is peculiar because variability shows stability rather than change, as Labov himself points out is the case of /s/ (See Labov 1994:595). This stability is in need of an explanation, but to my knowledge, Labovians studying Caribbean Spanish have not furnished one.

Within the Labovian framework it would be possible to say that there are at least three competing diachronic trends in Caribbean Spanish manifested in variability. There is a trend toward the elimination of coda consonants, and there is an opposite trend toward retention without phonetic neutralization. The third trend is to retain codas but to apply processes such as aspiration, lateralization, etc., leading to phonetic neutralization. However, for Labovians these trends do not manifest the existence of competing systems within one speaker but only the existence of competing processes within a single system. The lack of recognition of the possibility of competing systems within the same speaker on the part of Labovians may be related to their lack of interest in grammar as a model of competence and their interest in relating linguistic performance (in our case, actual pronunciation) to extralinguistic facts of a social and historical nature through the cataloging and quantification of surface phenomena.

9. The Variable Nature of Variability Factors

In considering the possibility that Caribbean Spanish speakers may be in possession of more than one phonological system, it is important to look at certain data provided by the Labovian analysis of Caribbean Spanish variability. Labovians have determined the probability of occurrence of both conservative and radical manifestations of the same segment in relation to a number of factors. Some of these factors are extralinguistic (including those of a social nature) and some are purely linguistic. Among extralinguistic factors are those that pertain to qualities of the speakers themselves and to their social circumstances, e.g., their sex and educational level. One purely linguistic factor considered by Labovians is the phonetic environment in which a given sound occurs in terms of characteristics of neighboring sounds.

For Labovians, one very important extralinguistic factor in variability is *formality*. This refers both to the situation that a speaker is in and the topic that s/he or she is talking about. In some Labovian studies, degree of formality has been related to certain tasks speakers are asked to perform. Formal situations have included reading words from a list, reading a text, and discussing a formal topic. Informal situations have included discussing an informal topic and engaging in spontaneous conversation. The frequency rate of phenomena such as /s/ aspiration and /r/ lateralization in Caribbean Spanish dialects have been found to be relatively lower in situations that Labovians classify as formal and relatively higher in situations they classify as informal. (See, e.g. Ma and Herasimchuk 1971, Lafford 1986.)

Among other factors affecting the probability that a given allophone may occur are speakers' social class and level of education. It is important here to refer to the phenomenon of stigmatized pronunciation. When a certain phonetic process makes words depart from standard pronunciation (which normally is that of the more educated and affluent people in the society), such a process becomes socially stigmatized; it is 'bad' to pronounce words that way. Labovian studies have repeatedly found that the probability of occurrences of stigmatized sounds is lowest among upper class speakers and increases to the point that it is highest among lower class speakers. As would be expected, there is also a negative correlation between the occurrence of stigmatized processes and the level of education. In Caribbean Spanish, simplification phenomena have been shown to be more frequent among the lesser educated and the lower classes. (See, e.g., Alba 1990.)

Another factor considered by Labovians has been gender. Studies on different language groups have shown that men and women who speak the same language natively pronounce it differently. In some cases women have shown to be more innovative than men (See, Fontanella de Weinberg's 1979 study of a non-Caribbean Spanish dialect). In other cases they have shown to be more conservative. For instance, Rojas (1982) found that Cibaeño Dominican women engaged in liquid gliding less than men.

Moving on to purely linguistic constraints, it has been found that word-final dropping of /s/ in Caribbean Spanish is less frequent when the vowel beginning the next word is stressed than when it is unstressed (see, e.g., Alba 1982b) and it has also been found that word-final /s/ dropping is less frequent when the word is toward the beginning of a sentence than when it is toward the end (see Poplack 1979.)

Consider now that the effect of any given factor on variability is itself variable. To illustrate, Caribbean Spanish studies show that speakers do not refrain from simplification in formal contexts. For example, Ma and Herasimchuk's (1971) Puerto Rican subjects lateralized /r/ and aspirated /s/ even when reading from a list of words. Take now the factor of sex. Cibaeño Dominican males glide liquids more than women, but women also glide them (See Rojas 1982). And if we attend to the criteria of education and social class, we see that educated, upper-class speakers do not refrain from aspirating or dropping /s/ (see Lafford 1982). Moving on to linguistic factors, Caribbean speakers tend to aspirate and drop word-final /s/ less when the word that follows begins with a stressed vowel than when the initial vowel is weakly stressed, but simplification occurs before weakly stressed vowels as well (see Alba 1982b). And word-final /s/ dropping occurs more when the word is not at the beginning of a sentence, but it also may occur at the beginning of a sentence (see Poplack 1979). In short, no factor invoked by Labovians as influencing pronunciation stops simplification one hundred percent of the time.

We can think of formality, upper class status, and strong stress as factors that are only partially successful in *inhibiting* simplification. Conversely, we can think of informality, lower class status, and weak stress as factors that are only partially successful in *facilitating* simplification, given that coda consonants are not simplified one hundred percent of the time in informal situations, by lower class speakers, or before weakly stressed vowels.

10. Variability and Control Among Caribbean Spanish Speakers

Suppose now that a native speaker of Caribbean Spanish who lives in a Spanish-speaking community refrains from simplifying any coda consonants while reading a list of words aloud. This is not an imaginary possibility. It would be the expected behavior of radio and TV announcers in Caribbean Spanish countries and Caribbean Spanish communities in the United States, e.g., in Cuban Miami (I would like to add that Caribbean Spanish announcers, anchor persons and reporters who do not engage at all in coda consonant simplification can be seen and heard daily on Univisión, a TV network in the United States broadcasting exclusively in Spanish).

Recall that reading aloud constitutes a formal situation in the Labovian framework. The behavior of media speakers is atypical of the *average* Caribbean speaker as reflected in Labovian data, since the incidence of nonsimplified allophones in formal situations never reaches one hundred percent for any group (see Ma and Herasimchuk 1971, and Lafford 1982). Why are announcers able to inhibit simplification one hundred percent of the time? One possible answer is that they have achieved this through training. They exhibit total *control* over the conservative mode of pronunciation of coda consonants.

Consider now the relationship between control and the notion of *style*, as normally used in sociolinguistic parlance. Styles in sociolinguistics are modes of speaking according to the relative formality of social contexts. A formal situation calls for a formal style, and an informal situation for an informal style. In formal styles speakers are more linguistically conservative than in informal styles. Native speakers of a language are said to be in control over the stylistic range of their native language, i.e., knowing when to be conservative and when not, according to situation. In contrast, nonnative speakers do not have such a control.

11. Similarities between Caribbean Spanish Speakers and L2 Learners

Linguists who have applied the Labovian model to the study of nonnative pronunciation (e.g., Tarone 1988) have noticed that the pronunciation of nonnative speakers shows variability, with one important aspect of it being that nonnatives may be phonologically conservative in informal situations but nonconservative in formal situations, contrary to what is expected of natives. Within the sociolinguistic model of second language acquisition, successful acquisition occurs when the learner gains control over the stylistic range.

Caribbean Spanish announcers who are capable of refraining totally from simplification in a formal situation resemble successful L2 learners who have attained mastery over the stylistic range. In contrast, the average Caribbean Spanish speaker, who shows nonconservative forms in formal situations and conservative forms in informal situations, resembles a second language learner who has not yet achieved mastery over style.

There is another significant way in which Caribbean Spanish speakers resemble second language learners with respect to the conservative mode: the control over the conservative mode of pronunciation increases with schooling. The frequency of conservative realizations is positively correlated with the number of years that an individual spends in school (see Alba 1990). However, education does not grant automatic control over the conservative mode of pronunciation, as seen in the fact that simplification is never reduced to zero at the highest level of schooling. The average educated speaker still shows no absolute control over the conservative mode. It is safe to assert that the average Caribbean speaker, even if highly educated, is unable to speak conservatively at will.

I would like to provide anecdotal support for this assertion from the experiences of several educated Caribbean Spanish-speaking individuals known to me who have been instructors of Spanish as an L2 in the United States. It is generally assumed in the pedagogy of L2 Spanish in the U.S. that students should be taught a conservative pronunciation without simplification. In addition, among educated speakers in the Spanish-speaking world, simplification carries low prestige and Caribbean Spanish-speaking instructors report being ridiculed by colleagues from conservative-speaking countries for engaging in simplification. This situation and the demands of pedagogy lead to attempts on the part of Caribbean Spanish-speaking instructors to modify their pronunciation in the classroom as well as around their colleagues. However, these instructors report that it is impossible for them to pronounce conservatively at all times, either before their students or their colleagues.

12. Control and Fossilization in L2

Recall the imaginary L2 learner of a language that allows codas in word internal position but disallows them word-finally. Recall also that the native language of the same learner does not allow codas at all, which is why the learner does not pronounce word-internal codas when s/he should, though sometimes s/he does pronounce them, i.e., her/his pronunciation of word-internal codas is

variable. Recall how I presumed this learner to be billectal and bound to switch grammars in midword, i.e., engage in phonological code-switching. Suppose now that this learner mispronounces coda consonants variably for the rest of her/his life. In my terms s/he continues to be billectal in L2 and continues to switch between Lect 1 and Lect 2 in speech. In Labovian terms s/he presents a stable case of variability.

Consider now that the case of my imaginary L2 speaker is very much like that of the average L2 speaker in real life. Most L2 learners never gain absolute mastery over the phonology of their L2, retaining a foreign accent all their lives. The average L2 learner "fossilizes" with respect to phonology at some stage in his/her interlanguage development (see Selinker 1972). That is to say, in Labovian terms, L2 phonological variability becomes stable past a certain point in the development of the learner's interlanguage. What also becomes stable is the lack of control over style, which is perpetuated for as long as the learner speaks L2. Variability is then an effect of the lack of control on the part of L2 speakers. But what is it exactly that the average L2 speaker has no control over? The answer is that such a speaker has no control over the use or non-use of the different lects of L2 that s/he or she has internalized.

13. A Hypothesis on the Acquisition of Caribbean Spanish as a First Language

The parallelism between L2 learners and Caribbean Spanish speakers with respect to variability and control would seem to be limited by the fact that in the case of a monolingual Caribbean Spanish speaker the language is acquired natively. Think of a child acquiring a Caribbean Spanish dialect. S/he has no phonological system to start with, so we cannot talk about two lects, one being more like a native lect than the other. But suppose the same child acquires first the simplest, least marked system that is consistent with the data. Since consonant dropping is so common, the child constructs a phonology that has principles and procedures assuring that no coda consonants appear on the phonetic surface. The child's *first lect* allows no coda consonants. But just like a child growing up in a multilingual environment is capable of becoming multilingual, the Caribbean Spanish-speaking child is capable of becoming multilectal and indeed will become so. There are data to which the child is exposed that contradict the no-coda hypothesis, but rather than modifying the phonology of the first lect, the child constructs a second phonology that allows coda consonants. However, the

principles and procedures of such a phonology require the types of simplification that I have subsumed under phonetic neutralization. Later, on the basis of the relatively infrequent incidence of conservative pronunciation, i.e., nonsimplification, the child constructs a third phonology that is the most marked with respect to coda consonants. It is over this grammar that the average Caribbean Spanish speaker has least control.

In other words, the average Caribbean Spanish speaker is at least trilectal, with respect to phonology, and has at least three autonomous phonological modules. The possibility is open that the three (or more) phonological modules are part of a grammar that has only one lexicon and single modules for morphology, syntax, and semantics.

If we look at Caribbean Spanish multilectalism within the framework of a rule-based phonology, we can say that lects differ in their rule inventories. For instance, the phonology of the most conservative lect contains neither Aspiration or Deletion, the phonology of the most radical lect contains Deletion but not Aspiration, and the phonology of the lect allowing simplified codas contains Aspiration but not Deletion. No lect contains both rules since they are incompatible. On the other hand if we look at multilectalism within the OT framework we can say that lects differ in the way that the same universal constraints are ranked. In the phonology of the most radical lect *Coda is ranked higher than other constraints that would allow coda consonants, while in the phonology of the most conservative lect *Coda is ranked lower than those other constraints. And in the phonology of the lect that shows simplified codas, constraints are ranked so as to allow for instance liquid lateralization and nasal velarization, which are disallowed by the ranking of constraints in the other lects.

14. Differential Ability among Multilectals

As happens among bilinguals who have acquired their two languages sequentially rather than simultaneously, there exists among multilectals different degrees of mastery over the system that was not acquired first. As is well known, a few bilinguals are balanced, showing 'native-like' control over L2. On the opposite side of the spectrum there are individuals who have only a rudimentary knowledge of their L2. In the middle of the spectrum is the average bilingual, who certainly does not show 'native-like' control over L2. Similarly, among multilectals, relatively few individuals show control over their most conservative lect. Among these would be the Caribbean Spanish radio and TV announcers who

do not simplify coda consonants at all, at least not when they are before a microphone. It is a good question whether these individuals are so phonetically conservative when they are not at their jobs. In my experience, there are media announcers from Caribbean Spanish countries who also speak conservatively away from their jobs. Apparently, as can happen to bilinguals, there are multilectals who, either consciously or unconsciously, acquire greater control over the conservative lect at the expense of the more radical lects. Such individuals sound conservative at all times, regardless of situation. At the opposite end of the spectrum there must be individuals practically incapable of using the most conservative lect. In the middle are perhaps the most numerous group of multilectals. These are the ones who normally engage in phonological code-switching, regardless of situation, though they will use the conservative lect more in formal situations and the radical lects more in informal situations.

Phonological code-switching adequately describes all cases in which Caribbean Spanish speakers alternate between simplification and nonsimplification within the same utterance and even within the same word, as in, for example, [as.béh.to] for *asbesto*, 'asbestos'. Phonological code-switching is the normal mode of pronunciation for the average Caribbean Spanish speaker, and it is perhaps the basis for the internalization of competing grammars on the part of children.

15. Summary and Conclusions

I have proposed here that variability in Caribbean Spanish coda consonants is an effect of the uneven control that speakers have over at least three different phonological systems they have acquired. The most radical of these does not allow coda consonants, the most conservative does, and does not allow codas to be simplified. A third lect allows simplified coda consonants. The lack of control over the most conservative lect resembles that shown by bilinguals over their weaker language. During acquisition the Caribbean Spanish child is presented with conflicting information about codas, and first internalizes a system that is least marked with respect to codas (no codas) and lastly internalizes the most marked system (one with codas that cannot be simplified). Some speakers are able to gain control over the most conservative lect but most speakers never attain such control, engaging frequently in phonological code-switching and giving variability a 'stable' appearance.

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