1. Introduction

This paper concerns sociophonetic knowledge and a construct associated with it called style. It presents a view of sociophonetic knowledge that departs radically from that of variationist theory, while taking very much into account the findings of variationist studies on Spanish sociolects. Sociophonetic knowledge is not a ‘knowing what’ but a ‘knowing how’ and so it can be defined as the ability that speakers have of adapting their pronunciation to the situation in communicative interaction. This ability is displayed in the use of the different modes of pronunciation that are called styles.

It is normally assumed that if you know a language well, you know how to use it. That includes knowing how to use a formal style of pronunciation in a formal situation and an informal style of pronunciation in an informal situation. Knowing when to sound formal and when to sound informal are fundamental aspects of sociophonetic knowledge. There are phonetic phenomena that signal informality, such as using the allophone of a phoneme that is the product of some kind of simplification. An example from Spanish is pronouncing /s/ as [h]: your tongue does not move. In contrast there are phonetic phenomena that signal formality, such as using the allophone of a phoneme that does not show simplification. An example is pronouncing /s/ as [s]: your tongue has to move when you pronounce it.

It must be said that the word ‘style’ has been used in variationist studies to refer to the situation in which speakers participate. For example, reading a list out loud has been classified as a formal style and engaging in spontaneous conversation has been classified as an informal style. But properly speaking, different styles are different modes of pronouncing.

The view that I will present and defend here is that the sociophonetic knowledge of speakers classified as native speakers of a language is not necessarily maximal since their control of style is not necessarily absolute. Variationists tacitly disagree with this view. Within the variationist framework it is assumed that the acquisition of sociophonetic knowledge by native speakers is successful. In the absence of any pathological impairment, if your native language is your only language or is your dominant language, you know it well and you know how to use it, and this includes knowing how to pronounce it in the different situations in social life. If your native language is Spanish, you have mastered at least one variety of it. Let me call it your native lect to avoid the negative connotations of the term ‘dialect’. You are assumed to possess absolute sociophonetic knowledge of your lect. You are able to communicate effectively with other speakers of your lect and in the social life you share with members of your community you know how to say what to whom depending on the circumstances. Of course you can communicate with speakers of other lects of Spanish, mainly because there are very many phonological, morphological, and syntactic similarities between any two lects. In addition, it is not impossible that you may know more than one lect well and be taken as a native speaker of another lect by their speakers. But normally you know well only one lect and that is considered your dominant lect. Your dominant lect may be a sociolect within a larger speech community. That is to say, for example, there are individuals who live in the same city as you and speak a lect associated with their social class, which is different from yours. If you are uneducated and functionally monolectal (meaning you only know well your own lect) that means you are not able to sound educated. You are
unable to adopt the pronunciation of an educated person. You certainly have no control over the stylistic range of an educated lect.

But suppose instead that you are a highly educated speaker. You are university-educated. Your stylistic range is wider. You are able, for example, to deliver a lecture on a formal topic, using highly formal language. Of course you have sociophonetic knowledge of your lect, and that includes the ability to pronounce in a more relaxed manner when communication is not at stake. When you are talking to family and friends you may leave sounds out or simplify them in positions where distortions do not matter. The others will understand you since they engage in the same phonetic behavior. In phonology we would say that you and other speakers of your lect have the same underlying forms for the words in your vocabulary and the same principles determining how they are pronounced.

But suppose now that the phonetic behavior that you as an educated speaker display in an informal situation is considered incorrect if displayed in a formal situation. Suppose it is considered incorrect because uneducated speakers engage in this behavior very frequently and they do so in all situations, no matter the setting, the topic, the interlocutor, etc. If your sociophonetic knowledge is maximal, then you can adapt your pronunciation to the situation perfectly. You can sound educated at will.

But evidence from variationist studies indicates that there is a strong chance that even if you are highly educated, you may not be able to refrain from using stigmatized sounds.

2. Lateralization of /ɾ/ in coda position in Spanish

To illustrate this I will focus on the phenomenon of lateralization of the Spanish flap phoneme /ɾ/ in coda position, i.e., the realization of /ɾ/ as the alveolar lateral [l] in that position. This phenomenon is manifested in a number of Spanish lects in a variable way, even in the same exact context for the same individual. For instance the same speaker may pronounce carta, ‘letter’ sometimes as [káɾ.ta] and sometimes as [kár.ta] on different occasions and even in the same discourse. The pronunciation with the flap is the standard and the lateralized variant is stigmatized, even by those who do it. Variable flap lateralization is considered characteristic of Caribbean Spanish and is indeed found in Cuban, Dominican, and Puerto Rican Spanish, but as Quilis (1993:355-357) observes, it is also found in non-Caribbean areas, including Ecuador, Argentina (in Neuquén) and the Canary Islands. Within the Caribbean it is not characteristic of educated speakers in Cuba and the Dominican Republic. In those two countries, lateralization is a social marker, identifying the speaker as uneducated. In contrast, in Puerto Rico, it is not a social marker since it is present in all sociolects. In a study by López Morales (1983) the frequency of the lateral realization was found to be close to 40% for the population of San Juan at large, and though it was more frequent in the speech of the less educated, it was also present in the speech of the highly educated. In that study it was found that the lateral realizations were not absent from formal situations. That is to say, in formal situations the frequency of lateralization, though low, was not zero.

Suppose we study the phonetic behavior of a group of highly educated Puerto Rican speakers in two different situations: a job interview and an informal conversation with friends. If the results follow the pattern of other variationist studies, we will find lateralization to be more frequent in conversation than in the job interview. But we will also find that lateralization is not absent from the job interview. The question is, why would educated speakers use a stigmatized sound in a formal situation? In her excellent handbook of Spanish sociolinguistics and pragmatics, Carmen Silva Corvalán (2001:15-16) asks why individuals do not get rid of stigmatized traits and adopt those of prestigious varieties [of the same language]. According to her, one of the most important reasons is that the way we talk is a strong symbol of group identity and we do not want to give that up. She is silent on the other important reasons why people do not change their pronunciation in order to sound more prestigious. The reason she gives cannot certainly explain the prevalence of lateralization in educated Puerto Ricans since it is not a marker of group identity: rich and poor alike show the trait. What would be the reason then for the appearance of the stigmatized variant in a formal situation?

Before attempting an answer allow me to present some anecdotal evidence about lateralization among educated Puerto Ricans. In the long years that I have been teaching Spanish language and linguistics I have come into contact with a good number of Spanish-dominant educated Puerto Ricans,
born and raised in Puerto Rico, who were either colleagues or students. They were all college-educated and some had graduate degrees or were working on their Master’s or Ph.D. Among those who were of working class or lower middle class origin some lateralized variably and others did not lateralize at all. According to the testimony of at least one member of the latter group, she has never lateralized. Her parents, who were poor and uneducated, did not lateralize and she has never changed her pronunciation of /R/. Among those who were of middle class or upper middle class extraction, something similar obtained: some lateralized variably and others never lateralized. My personal experience confirms then that lateralization is not a social marker in Puerto Rican Spanish. It apparently is not characteristic of a certain area or areas on the island. I remember two young women who were my students in different eras but were from the same town in Puerto Rico (Barceloneta) and so were their parents and grandparents. Both of them were middle class and highly literate. What I found remarkable was that one of them never lateralized but the other lateralized very frequently.

Here is another fact to be considered. I have found that highly educated, Spanish-dominant Puerto Ricans who lateralize variably do so when discussing formal topics. For example one of them lateralized very frequently when talking about his doctoral dissertation. This corresponds with variationist studies finding that nonstandard variants are present in formal situations.

One aspect that variationist studies of groups obviously mask is individual differences. Suppose there is a study about the pronunciation of Spanish-dominant university-educated Puerto Ricans born in Puerto Rico who now live on the mainland, and the group includes the individuals I have known. If the results are in agreement with the results of other variationist studies as well as with my personal experiences with Puerto Ricans, then the group as a whole will show some degree of lateralization in the formal situation. On the other hand, if the study does not include analyses of the pronunciation of individual members of the group, then the results do not reveal that the sample included speakers who do not lateralize.

Consider now that within the framework of variationist sociolinguistics any two Puerto Rican speakers who are Spanish dominant, upper-middle class and highly educated speak the same sociolect of Puerto Rican Spanish. However, it may be the case that of the two one is a ‘lateralizer’ and the other is not. The phonological system of the non-lateralizer does not contain any specification that /R/ should be pronounced as [l] in coda position, whereas the phonological system of the lateralizer does.

3. On the mental phonology of lateralizers

I would like to refer to the phonological system as the mental phonology, based on the assumption that this system resides in the mind/brain. Since it is safe to assume that the mind/brain governs the functioning of the speech apparatus during speech, it is also safe to assume that your mental phonology contains instructions on how to pronounce the sounds of your lect. We can refer to lateralization as a phonological process. Every phonological process is the execution of an instruction given by the brain to the speech apparatus so that a sound or sound sequence is pronounced in a certain way. But every phonological process is guided by phonological principles. The dominant idea in phonological theory nowadays is that most if not all phonological principles are constraints (instead of rules). The dominant constraint-based model is Optimality Theory (OT) (see McCarthy 2002.). OT is actually a model of competence, of what the speaker knows unconsciously about the relationship between the invariant mental form of a word, its underlying form, and the different ways that a word can be pronounced. I believe that we need a model of that relationship if we are interested in explaining how the different phonetic forms of a word are perceived as the same word. OT provides an interesting and revealing way of describing the relationship between invariant mental forms and their physical realization. The invariant mental forms must exist because we perceive every given word consistently as that word, regardless of how it is pronounced. That is a psychological rather than a sociological phenomenon and is actually independent of sociophonetic knowledge. However, the degree of sociophonetic knowledge that speakers possess is related, as we will see, to the degree of control that speakers have over phonological processes, which in turn are governed by constraints.
4. A brief look at a constraint-based theory of phonology

In what follows I will assume a constraint-based theory (CBT) that does not claim to represent OT but does incorporate some fundamental notions of OT. The names that I use for the few constraints that I will focus on are not used in the version of OT presented in McCarthy 2002.

In CBT, as in OT, no constraint is language-particular, unlike the rules in rule-based models. Rather, every constraint is universal in that it expresses a tendency present in human language. Some constraints express the tendency to distinguish between words exclusively through sound. It is better for communication if any two words that do not have the same meaning are pronounced differently instead of the same. We can call this the tendency toward contrast. Other constraints express the tendency to simplify pronunciation as much as possible. We can call this the tendency toward simplification.

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There is a constraint called **Faith** (short for Faithfulness) which promotes contrast by specifying that the phonetic form of a word must be identical to its underlying form. Faith disallows inserting sounds that are not present in the underlying form, i.e., it disallows epenthesis; and it also disallows not having a phonetic representation for every segment present in the underlying form, i.e., it disallows deletion. In addition it disallows any difference in membership in a phonological class between a phonetic segment and the phonemic segment that underlies it. For instance by Faith a voiced phoneme cannot have a voiceless allophone, and a non-lateral phoneme cannot have a lateral allophone. Among the constraints that promote simplification is **Coda** (read No Coda). It specifies that a syllable cannot have coda segments. This makes for shorter syllables. **Coda** disallows syllables ending in a consonant. The combination of **Coda** with the **Onset** constraint (every syllable must have an onset) reflects the fact that the most common syllable in human languages has the structure CV, where C is any consonant and V any vowel. A third constraint that is of interest to our discussion is one that can be abbreviated **Cor-Lat**. This constraint specifies that a coronal liquid consonant must be lateral. This reflects the fact that the most common coronal liquid consonant in the languages of the world is [l]. The substitution of [l] for [r] can be seen as an instance of simplification since laterals have a single phase whereas flaps have two phases, a short non-continuant phase followed by a continuant one.

It is important to point out that all constraints are violable since they express only tendencies, not universal absolutes. For instance, the pronunciation of *furor*, ‘furor’, as [fu.ɾól.] by a speaker who lateralizes /ɾ/ contains violations of Faith, *Coda*, and Cor-Lat. The lateralized liquid violates Faith since a non-lateral phoneme is represented by a lateral allophone; the fact that the second syllable of that word ends in a consonant violates *Coda*; and the presence of [ɾ] violates Cor-Lat because [ɾ] is non-lateral.

Since the mental phonology of every speaker of every language contains all constraints, two languages differ phonologically from each other crucially in the relative importance that each constraint has within each language-specific phonology, relative to the specific context in which a sound occurs. For example, with respect to coda consonants, Faith is more important than *Coda* in languages in which coda consonants are not deleted but *Coda* is more important than Faith in languages in which consonants are indeed deleted. The relative importance of constraints is expressed in the notion of **ranking**. If Faith is more important than *Coda*, then Faith is ranked higher than *Coda*. If the opposite is true, then *Coda* is ranked higher than Faith. Ranking is invoked to explain which of the possible phonetic forms that a word can have (which in theory are infinite in number) is the one that ends up representing the invariant phonemic form of that word. Suppose a word contains a phoneme that has more than one allophone. The ranking determines not only what allophone occurs but also what allophone cannot occur. The CBT model looks at the actual phonetic form of a word that occurs in a given environment and attempts to describe, in terms of constraints and of violation of constraints, why, out of an infinite number of candidates, that particular form turned out to be the phonetic realization of the word in question. It is of course impossible to compare in real time the successful phonetic form with an infinite number of potential candidates, but it should be kept in mind that CBT is not a model of performance but of competence. Speakers know (unconsciously of course) and on the basis of constraints, why any impossible phonetic form for the word did not appear. To
simplify matters, when describing actual pronunciation, the CBT model compares the successful phonetic candidate, called the optimal candidate, with only a few of the others.

Suppose now that you are doing a CBT description of a Spanish lect in which /ɾ/ is never lateralized in coda position and you want to explain why in that lect a word like furor is never pronounced [fu.ɾól], as it is sometimes pronounced in lateralizing lects. The non-existent form [fu.ɾól] would be among the failed candidates. The optimal candidate is of course [fu.ɾór]. When we compare these two forms, we see that both contain one violation of *Coda, since their last syllable ends in a consonant; in addition, each form violates two other constraints though not exactly the same two: [fu.ɾór] contains two violations of Cor-Lat because it contains two non-lateral liquids, whereas [fu.ɾól] contains only one violation of Cor-Lat because the second liquid is lateral, but it also contains one violation of Faith, because it contains a lateral allophone of a non-lateral phoneme. The underlying form is assumed to be /fu.ɾoR/ in CBT the total number of violations can be important if a failed candidate and the optimal one violate the same constraints. On the other hand, if two candidates have the same number of violations, then it matters which particular constraint was violated. All other things being equal, the candidate that violates a constraint ranked higher always loses out to a candidate that violates a constraint ranked lower in the same environment. In a non-lateralizing lect, Faith is ranked higher than Cor-Lat in coda position, which is why [fu.ɾól] cannot be the phonetic form of furor in that lect.

5. Conservative vs. radical lects and rank switching

Let me now use the label conservative lect to describe a lect in which Faith is always ranked higher than Cor-Lat in the pronunciation of coda liquids. Now suppose that there is a Spanish lect in which lateralization of /ɾ/ is categorical in coda position, so that, for example, furor is always pronounced [fu.ɾól] when /ɾ/ would be in coda position. Since the plural is always pronounced [fu.ɾó.ɾes], it is assumed that the underlying form of the singular is /fuɾor/, because the plural is constructed by adding an allomorph of the plural (in this case /es/) to the singular as base. Since, in accordance with syllable structure principles, the last segment of the base is in onset position in the plural, it is never lateralized, which is why the plural is never pronounced *[fu.ɾó.les]. In this lect with categorical lateralization the phonetic form of the singular cannot of course be [fu.ɾór]. The CBT explanation is that Cor-Lat is ranked over Faith in coda position. Let me use the label radical lect to describe a lect in which that is the case.

In the CBT framework, two languages not showing the same phonological processes in a given environment differ in their ranking of constraints for that environment. When you acquire your native language, you acquire a fixed ranking of constraints for the different environments in which sounds occur. Acquiring a second language successfully consists of acquiring a different ranking of constraints since no two languages have the same ranking. Within Spanish, a conservative lect and a radical lect behave then like different languages with respect to the pronunciation of liquids in coda position.

Consider now that a Spanish lect that lateralizes variably behaves sometimes like a radical lect and sometimes like a conservative lect. We can say that speakers of that lect engage in rank switching in a manner that puts one in mind of code switching by bilinguals. Consider the behavior of lateralizing speakers in a formal situation. Statistical evidence shows clearly that they rank-switch in that type of situation since they pronounce coda /ɾ/ sometimes as [ɾ] and sometimes as [l].

6. One or two mental phonologies for rank switchers?

Bilingual code switchers obviously switch between mental grammars. The question arises, do rank switchers within the same language switch at least between mental phonologies, given that they share the same syntax, the same morphology and probably the same lexicon? Suppose a speaker of Spanish has acquired two different lects competently to the point where he is taken as a native by native speakers of either lect; has he acquired two different mental phonologies? Some years ago I met a Spaniard named Pepe at the university where he taught in north-central Spain. Pepe spoke Castilian
and I took him to be from north-central Spain. One day he revealed to me that he was actually from Andalusia and learned how to speak Castilian to increase his probabilities of being hired as a professor at the university level since Castilian was (and is) the standard lect. He demonstrated that he could talk using seseo (i.e., substituting /s/ for /θ/), aspirating or deleting /s/ and other consonants in coda position, etc., in a manner that struck me as flawless. I find it easy to believe that he had two different phonological systems. They may have not been different in every respect but he certainly had two different inventories of phonological processes, and at least two different rankings of constraints. One could say that when he deleted a coda consonant in Andalusian, it was because he ranked *Coda over Faith, but exactly the opposite was true in Castilian. Unfortunately I did not follow him around with a tape recorder and we did not converse a whole lot. It is possible that he did not keep the two lects apart all the time and he may have engaged variably in rank switching. I have known Andalusians who switched between seseo and the use of /θ/ even inside a word. One example is [θerβε.sə] for cerveza, ‘beer’. There must be a constraint specifying that a voiceless anterior coronal fricative must be distributed instead of non-distributed (i.e., laminal like /s/ instead of apical like /θ/). Let me call it Dist. Now, [s] would not violate Dist but [θ] would. However, if you are speaking Castilian and are going to use, say, the word zona, the version [só.na] is disallowed by the ranking in Castilian because Faith is ranked over Dist in onset position. And so if you say [só.na] in the middle of a Castilian utterance, you did not say that word in Castilian, or at least you did not use the system that underlies Castilian. You switched rankings in the middle of an utterance. If your native lect is Andalusian and you are predominantly seseante but use /θ/ variably in positions where Castilian would have that phoneme, we can say that you have switched to the Castilian ranking every time you use /θ/. The question remains whether switching rankings intralingually involves switching systems.

At least some variationists explicitly deny that showing variation between standard and stigmatized allophones of the same phoneme mean that you are switching between coexisting systems. For instance, Chambers and Trudgill (1998:42-43) rule out the existence of polylectic grammars, i.e., of grammars underlying more than one lect.

7. Introducing sub-phonologies

For my part I prefer to think that the mental phonology of rank switchers includes at least what I would call sub-phonologies, first proposed in Guitart 2000. (See also Guitart 1996, 1997 for forerunners of that notion.) Sub-phonologies differ crucially from one another in constraint ranking. In the case of people regarded as native speakers of a language, the emergence of sub-phonologies is an outcome of speakers being faced with contradictory data about the language of the speech community in the course of acquisition. Children infer the rankings that underlie phonological phenomena from the evidence that they receive. If a lateralizing lect is what is spoken around you as a child, you set the ranking to favor Cor-Lat over Faith in coda position. But if the same people around you behave sometimes as if they were speaking a non-lateralizing lect, then your mental phonology branches out and at least two sub-phonologies are established. In one of them, the lateralizing sub-phonology, Cor-Lat is ranked over Faith; but in the other, the non-lateralizing phonology, Faith is ranked over Cor-Lat. It may very well be that you have a sub-phonology where Faith is ranked, not only over Cor-Lat but also over other constraints, and the higher ranking of Faith is relevant to the pronunciation of other classes of coda consonants, not only liquids. That would be your conservative sub-phonology. In contrast your radical sub-phonology would be the one where Faith is ranked lower than other constraints in coda position, which is the environment in which the phonological processes that are characteristic of radical lects manifest themselves.

8. Unequal control of sub-phonologies and second ranking acquisition

In my opinion, the data of variationist studies on lects in which lateralization occurs suggest that speakers who lateralize do not control the use of their sub-phonologies equally. If they had absolute control of both, then they would choose to use exclusively the more prestigious of the two, the conservative one, in formal situations. It seems to me that, with regard to the use of the conservative
sub-phonology, lateralizing speakers behave in a manner similar to that of people speaking a second language that they have not mastered totally.

Let us look for a moment at second language acquisition. The successful acquisition of a different phonological ranking (that of the second language) is not guaranteed, which is why second language speakers have an ‘accent.’ The phonetic behavior of those speakers is constrained only imperfectly by the target language ranking. Consider now the findings of second language acquisition researchers who have looked at learners’ performance from a variationist point of view, taking into account sociophonetic knowledge. They have discovered that second language learners use informal styles in formal situations and formal styles in informal situations, and this is manifested in part in their phonetic behavior. (See Gass and Selinker 2002:223-235). That is to say, second language learners do not have control over the stylistic range of the target language.

Let us focus on second language pronunciation. Suppose your native language is Spanish and your second language is English, and you communicate in English fairly well but still have an accent. Acquisition studies show that in the development of second language phonology learners show variation in the sense that at a given stage they alternate between correct allophones and incorrect ones in the same environment. For example, Spanish-speaking second language learners of English may aspirate word-initial /p t k/ only sometimes, pronouncing them unaspirated at other times. If you are such a learner, the fact that your control of English is uneven is due to the fact that the English ranking constrains your pronunciation only part of the time. We can say that you switch between the English ranking and the Spanish ranking. The English ranking is what determines that /p t k/ should be aspirated in the positions that they are. The Spanish ranking is what determines that in the same positions they should be unaspirated.

Suppose now that you are not a gifted second language learner but only an average one, like many of us unlucky mortals. At some point your interlanguage grammar becomes fossilized and you are left alternating forever between the Spanish ranking and the English ranking while speaking your idiosyncratic lect of English.

Consider now that native speakers acquire sociophonetic knowledge in stages. For instance, young children are unwittingly rude until they acquire the norms governing verbal social behavior. Fossilized learners may have retained features (for example, of intonation) that are not associated with rudeness in their native language but are so in the target language. There is no reason to expect that fossilized learners will have maximal sociophonetic knowledge of English.

9. Conclusion

To me the parallelism between fossilized second language learners and speakers who engage in rank switching while speaking what is considered the same language is inescapable. If that language is Spanish, those speakers do not have maximal sociophonetic knowledge of it since they cannot use the most prestigious ranking consistently. Returning to Silva-Corvalán’s question of why individuals do not get rid of stigmatized traits and adopt prestigious ones, one possible answer is, because they are not able to, because for some reason they are not as good using the conservative sub-phonology as they are using the radical one. This is true at least of people who rank switch in formal situations.

I hope I have demonstrated in the preceding what I set out to do, that speakers classified as native speakers of a language do not necessarily have maximal sociophonetic knowledge of that language because they do not have absolute control over the use of the different modes of pronunciation called styles. It seems to me that we should consider that those speakers are not using a single natural language underlain by a single system but perhaps two natural languages underlain by two different systems. They are more ‘native’ in one of those languages than in the other. Why this happens is a matter worth investigating. It is also worth investigating whether there is a special talent for mastering the prestigious pronunciation since some speakers do achieve that. In our Puerto Rican example they are the ones who never lateralize.
References


