

JANUA LINGUARUM

STUDIA MEMORIAE
NICOLAI VAN WIJK DEDICATA

edenda curat

C. H. VAN SCHOONEVELD

Indiana University

Series Practica, 201

PHONOLOGICAL VARIANTS
AND DIALECT IDENTIFICATION
IN LATIN AMERICAN SPANISH

by

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MOUTON PUBLISHERS · THE HAGUE · PARIS · NEW YORK

LIBRARY OF CONGRESS CATALOG CARD NUMBER: 73-80498

First edition: 1975
Second printing: 1980

ISBN: 90-279-3227-1

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Printed in the Netherlands

*Para Margie, fuente de
infinita paciencia y amor.*

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INTRODUCTION

Since the publication in 1945 of Tomás Navarro's *Cuestionario lingüístico hispano-americano* (Buenos Aires, Instituto de Filología), interest has increased in the dialectal manifestations of American Spanish. The Castilian of America has been described both diachronically and synchronically; in areas where people used to think that academies make and regulate languages and that the principles of usage emanate from normative criteria, we now see the beginnings of more objective attitudes and the recognition of linguistic criteria of analysis.

The *Bibliografía de la lingüística española* of Homero Serís (Bogotá, Instituto Caro y Cuervo, 1964) indicates a real concern for the Spanish of America, especially for its phonology and lexicon. An examination of the scholarly production in this area shows that there have been three main groups involved in field work, analysis, and description: Spaniards, many of whom have taken up residence in America; Spanish Americans, some of whom have become citizens of the United States; and a rather large group of North Americans.

With the examination and description of the Spanish of so many widely-separated parts of the former Spanish Empire, a concern has arisen for the grouping and the classification of the varieties encountered. Naturally, too, one thinks immediately of convenient geographical zones to settle these taxonomical problems, after the manner of linguistic atlases that have been published on sections of Eastern Europe and the eastern United States. It has become increasingly evident that attempts to delineate geographical dialect zones on a phonological basis for Spanish America have met with little success. The assumption has been that the findings must indicate well-defined zones such as those of the Germanic manifestations that separate *maken* from *machen*. The conquest and settlement of America by the Spaniard is a fairly modern enterprise, conceived in the heat of nationalism and religiosity, and carried out rapidly. Vast sections were explored, some of them settled. Lines of communication were tenuous, and some of the most active *conquistadores* and *pobladores* were in several parts of America during their lifetime. Distinctions in the Spanish of America today, therefore, are the products of many factors; except for vocabulary, these have little to do with zones on the map of America. One thing that is certain is that there is a tenacity of structural features in the Spanish of America.

There has been another element of confusion and limitation. So many of the writers describe one area without knowledge of other parts of Spanish America and with rather

limited perspective. They assume, therefore, that what they have so carefully described could not possibly exist in another place two thousand miles away.

Beset by these concerns, Resnick has decided to cast aside the taxonomic considerations and concerns, and look at all the available data on phonological traits of the total area. Then by using distinctive-feature techniques of discrimination, he proceeds to break down the entire corpus into binarily specifiable units of information, which, by virtue of the presence or absence of a phonological characteristic, make a dialect. Each distinction automatically creates two 'dialects'. While the author sets out to expose several popular misconceptions with regard to the geographical distribution of phonological features, he develops a method of discriminating and identifying that is based not on taxonomy but on the opposite principle — a breakdown of the total.

The selection of features has been thought out well; those chosen have a rather high discrimination load and are at the same time subject to clear geographical or social variation. Problems will arise in the application of some of these principles of discrimination. There are shady areas between "often" and "sometimes", as there are between the classes of Spanish American society.

By a clever use of two tables, the author numbers over 200 'dialects' that are associated with regions (cities, sections, countries) or with levels of society, and shows how many more could be identified, perhaps down to the idiolect. Space being one of the main considerations, the first table contains four features of American Spanish that can be present or absent. The addition of another feature automatically doubles the number of dialects indicated, and subsequent increases could be compared to a population explosion. The second table considers four more features that can be present or not in the Spanish of a given place; these collated with the first four bring the total to 256 dialects.

Although the principal thrust of the treatise would seem to be methodological, the author by illustration produces an extensive document of many variations in American Spanish and at the same time demonstrates that similarities do exist between widely separated places. The computerized indexes of features and of social classes make it possible to compare a given speaker's phonological traits with the entries in the proper index. Inasmuch as the indexes are arranged to give the information in a coherent and orderly fashion, the system permits one to state that a given speaker possesses a speech pattern similar to a specific region or regions. The two indexes of features, countries, and regions within the countries make handy guides to dialect identification.

Another phase of the process of dialect designation is the eliciting and processing of data. Although most of Resnick's data are from published sources, he makes excellent suggestions for the use of questionnaires in field work. One might question his use of a synonym-definition technique for the elicitation of phonological responses, and one wonders how such devices might fare in illiterate populations where verbal imagery is somewhat limited.

The author would seem to support the theory of the diachronic dimension of synchronic dialectology, along with recognition of factors of time and accessibility in the formation of today's American Spanish from peninsular sources of the *Colonia*.

Given the apparent lack of geographical zones or identifiable universal social criteria of identification, it would seem that the next step will be to discover a taxonomic basis, through the use of computer facilities, for some sort of classification of American Spanish

manifestations. It would appear that classifications will emerge that are related not to territory but rather to such factors as accessibility and diachronic considerations. Areas that were not under the constant influence of Andalusian Spanish in the later Colonial Period will inevitably prove to be more conservative in matters of phonological change. There may be many other factors such as urbanity, political considerations, commerce, etc. It may even be found feasible to examine the peninsular origins of the *pobladores* of Peter Boyd-Bowman's *Indice geobiográfico de pobladores*, I (Bogotá, Instituto Caro y Cuervo, 1964), and to collate peninsular origins, countries of settlement, and present dialectal features of these areas.

The Resnick work is a clever introduction to new concepts of methods in dialect identification; by way of illustration he makes excellent suggestions for the use of a questionnaire for field work evolved from a synonym-definition eliciting process.

The bibliography is carefully wrought and his maps are some of the best that have been devised for the study in detail of all areas of Spanish-speaking America.

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ACKNOWLEDGMENT

The author gratefully acknowledges the cooperation and assistance of the staff of the Southeast Regional Data Center at Florida Atlantic University and the use of the facilities of the Computer Center, without which this volume would not have been possible in its present form.

THE DELIMITING OF DIALECT ZONES IN LATIN AMERICA

It is relatively easy to delineate major dialect areas on phonological grounds in the eastern United States. We can generally identify a typical speaker as coming from the various parts of the north, or from the mountain states, or from the southern dialect area.¹

This is possible, in general, because groups of settlers from particular dialect areas of the British Isles settled in specific parts of the East Coast of the United States. New York metropolitan speech is a reflection of the London speech of its early settlers. In the middle of the eighteenth century, a large number of Scots settled in southern Pennsylvania, the Shenandoah Valley, the inland areas of North and South Carolina, and Georgia. They later migrated further into Virginia, Kentucky, and southern Ohio, forming much of what we now call the Midland or Mountain Dialect. This dialect is distinguished from southern speech, which includes the eastern shore of Maryland and Virginia, southern Delaware, parts of North and South Carolina, Georgia, and parts of Florida and of Mississippi. Texas shows influences of both Southern and Midland speech.²

In the eastern United States there are, then, several major dialect areas, and each one is a geographical area. The historical facts and hence the present-day geographical aspects of Latin American dialect geography are somewhat different from those of the United States. The early colonizers who came to the West Indies and then settled in the mountainous regions of Mexico and South America were relatively isolated there and thus retained much of their sixteenth-century Spanish.³ Those who lived in coastal areas had continuing contact with the changing Spanish of southern Spain, which by the eighteenth century had developed an aspirated allophone of the /s/ phoneme in word-final and syllable-final position.⁴ Thus in the twentieth century, almost all the coastal areas of Latin America regularly and very noticeably aspirate or drop this final /s/, while it is generally conserved in the mountain areas.⁵

These two manifestations of the final /s/ provide us with the largest, most common, and most general division of Latin American dialects — those that do and those that do not pronounce final /s/. Both are geographically widespread.

¹ Kurath, *Word Geography*; Malmstrom and Ashley, *Dialects — U.S.A.*; McDavid, "Dialects of American English". Complete references to these and other works cited in Chapters I, II, and III will be found in the bibliography beginning on page 445.

² *Word Geography*, Chapters I and II, and *Dialects — U.S.A.*, pp. 27-43.

³ D.L. Canfield, "Diachronic Dimension", p. 6. Also, R. Menéndez Pidal, "Sevilla frente a Madrid".

⁴ D.L. Canfield, *La pronunciación*, p. 69.

⁵ *Ibid.*, p. 83 and Map IV.

Another binary division which can be made is in the pronunciation of the velar or pharyngeal fricative /x/, as in the words *caja* and *jota*. In most northern-hemisphere Latin American countries with an Atlantic or Gulf of Mexico coastline, as well as coastal Peru and Ecuador, and the western Texas-Mexican border, it is (pharyngeal) [h], and may be phonetically indistinguishable from the aspirated /s/ found in some of these same areas. Most of Mexico (except along parts of the Gulf Coast and in some inland areas) and all of southern South America plus non-coastal parts of Peru and Ecuador use velar [x] varieties of this phoneme.⁶

This feature has a rather interesting geographical distribution when taken with the pronunciation of final /s/, since if a person has a combination of /s/ = [h] or [ϕ] (zero) plus /x/ = [x], and if he is not an atypical speaker of his region, we can often be quite certain that he is from Chile, Argentina, Uruguay, Paraguay, or parts of Bolivia, i.e., from southern South America. A combination of /s/ = [h] or [ϕ] plus /x/ = [h] points to a person's coming from a northern country. The combination of /x/ = [x] plus /s/-retained in a typical speaker indicates that he comes from the mountains of Peru, of Bolivia, or of Ecuador, or from parts of Mexico.

Another even more sparsely distributed phonetic feature contributing to the difficulty in delimiting Latin American dialect areas is the assibilated pronunciation of the multiple /r/ phoneme in such words as *perro* and *ropa*. Standard Spanish has the pronunciation [r̄], a voiced apicoalveolar trill, while the normal pronunciation of /r/ is [r̄], a voiced apicoalveolar sibilant, in Chile, Paraguay, the interior of Argentina, and bordering Peru and Bolivia. This is a large contiguous area. However, the same [r̄] is also used in parts of highland Ecuador, parts of central Colombia, and in parts of the widely separated Costa Rica, Guatemala, Mexico City, and much of central Mexico and New Mexico.⁷

By comparing the combinations of these and other phonological and non-phonological linguistic features in a given person's speech, it should be possible to a large extent, then, to specify almost automatically where a given speaker is from, *even though* we cannot readily draw all-inclusive dialect areas as we can to some extent in the eastern United States. We will return to this important point in Chapter II.

A classification of American Spanish dialects which is still adhered to by many today, was suggested in 1921 by Pedro Henríquez Ureña. He set up five dialect zones based on regions of Nahuatl, Caribe, Yarahuaca, Quechua, Aruacano, and Guaraní substrata.⁸ Such a classification is useful in the study of indigenous influences in the lexicon, but José Pedro Rona, together with T. Navarro, Augusto Malaret, Charles Kany, and others,⁹ criticizes Henríquez Ureña's classification as being inadequate and methodologically unsound since it is an *a-priori* classification, not one based on observed dialectal differences.¹⁰

Rona says in addition that there has been "a virtual limitation of the development of dialect studies of our continent . . . Useful works are in abundance, from an information

⁶ *Ibid.*, pp. 81-82 and Map III.

⁷ *Ibid.*, pp. 87-89 and Map VII.

⁸ Pedro Henríquez Ureña, "Observaciones sobre el español en América".

⁹ J. Rona, "El problema", p. 217.

¹⁰ *Ibid.*, pp. 217-219.

point of view . . . However, all these works are of a monographic and descriptive nature . . . Spanish American dialectology has not yet passed out of its first phase, the merely descriptive."¹¹

The only successful comparative study of Spanish American dialects, says Rona, was done in the book *La pronunciación del español en América* (Bogotá, 1963) by D. Lincoln Canfield. This short, comparative study is in the form of listings of where selected phonological features are found and in maps illustrating their relative geographical positions.

Although Rona criticizes Henríquez Ureña's dialect areas, he is interested in establishing a method for setting up dialect zones based initially on four isoglosses.¹² Rona's four tentative criteria include: (1) *yeísmo*, the phonemic leveling of standard Spanish /j/ and /y/; (2) *žeísmo*, the phonetic rendition of /j/-/y/, either or both, as [ž], a voiced alveopalatal fricative; (3) *voseo*, the use of the pronoun *vos* as the second-person familiar singular, rather than the standard *tú*; (4) selection of one of four sets of present-tense verb forms used with *vos*.

In the first three criteria, a binary choice is used to indicate the presence or absence of that feature; in the last, a four-way choice is necessary. On Rona's charts, the presence of *yeísmo* but lack of *žeísmo* and *voseo* is the case in Zone 1; however, the same combination of features is also listed for Zone 7, with no explanation offered for this split, and because of non-Spanish influence it is also listed as Zones 17 and 18. The arbitrary selection of these four criteria results in arbitrariness of these zones, since any time a new feature is added the zones will change; e.g., central Mexico and the Caribbean are classed together as Zone 1, but simple inclusion of one feature, the treatment of /s/, would greatly alter this picture.

Rona offers his charts as a methodological demonstration only, yet these charts, which are among the latest published efforts (1964) at defining Latin American dialect zones, do not seem to contain the coherence necessary for their fruitful completion.

The establishing of major dialect areas in Latin America on phonological grounds has thus far been impractical, if not impossible. Groups of speakers widely separated by geography may have very similar phonologies, while several major dialect divisions are said to be represented in Colombia alone. The notion of trying to specify in an organized fashion which geographical areas contain which phonological features remains an interesting one, even though it has never been accomplished on a large scale in Latin American dialectology.

Precise, readily available information of this nature would eliminate much of the speculation and prevent many of the unfounded conclusions abundant in this field. Areal information taken with the geographical and historical aspects of peninsular Spanish phonology would be of great importance in further investigating the peninsular origins of the original Spanish settlers, as well as later migrations within the American continent. Such data would also provide a distinct contribution to studies in the history of the Spanish language.

11 J. Rona, *Aspectos metodológicos*, p. 7. Translated here from the original Spanish.

12 J. Rona, "El problema", pp. 219-226.

At present, except for the data included in *La pronunciación del español en América*, there is no way to obtain complete comparative information except by tracking down, reading, and interpreting primary sources, many of which are lengthy works and/or no longer readily available, or by original field work.¹³

¹³ The process of tracking down even a small portion of such primary sources is not an easy one. Works dealing with Latin American dialectology are to be found in such widely varied journals and places as *Educación: Revista para el Magisterio* (Caracas) and the Colección Puertorriqueña Reading Room at the Library of the Universidad de Puerto Rico, where the reader is prohibited to make a photocopy of a page of a thesis without the written permission of the author. Canfield and others have long bemoaned the misconceptions prevalent in many published works dealing with "localismos", which more often than not turn out to be rather common Latin American traits; this is not surprising in an area where new publications are often first learned of only through reprints sent out by their author.

It is disappointing as well as significant that an organization as prestigious and potentially valuable as the Asociación de Lingüística y Filología de América Latina (ALFAL) has, as of October 1973, yet to publish a bibliography, a newsletter, or even a mimeographed directory of its membership.

II

AN ANALYTICAL APPROACH TO THE COORDINATION OF PHONOLOGICAL DIALECT DATA

The process of classifying information involves examining the individual bits of data, discovering their similarities and differences in accordance with specified criteria, and attempting to group the numerous bits of data into a smaller number of meaningful categories. As pointed out in Chapter I, such taxonomic attempts at establishing dialect zones for Latin American Spanish have traditionally met with little success.

It is important to note that the successful organization and comparison of phonological dialect data does not necessarily require the classification of the dialects into zones.¹⁴

It should be possible, instead, to begin with the notion of one large corpus, namely the totality of Latin American Spanish, and to establish a system for dividing this into the greatest number of minimally distinguishable dialect units, each unit ideally corresponding to a meaningful socio-economic or geographical entity, such as a town or city, and within these, a social class, etc. This type of organization is exactly the opposite of a classification.¹⁵

Each such socio-geographical unit identified in this way would contain a unique combination of specified phonological features, a combination which would distinguish it from all other such units.¹⁶ Since no claim for meaningful dialect groups or zones is to be made as is necessary in a classification, such a system is improved, not impaired, when additional features are later considered and existing minimal dialect units are further subdivided.¹⁷

In Chapter I it was pointed out that by considering a binarily specifiable phonological feature, for example the retention (+) or not (–) of /s/ in syllable-final and word-final

¹⁴ It is recognized, of course, that any phonological system assumed for a language is in itself arbitrary. A conventional phonological analysis of "standard" Spanish will be used here.

¹⁵ Carried to an extreme, such a division would ultimately yield one unit for every idiolect in every situation in which it occurs.

¹⁶ Vladimir Honsa recognized the value of considering combinations of features in his 1965 article "The Phonemic Systems of Argentinian Spanish", in which he said "In fact, the universal unity of the Spanish language is such that we could not find a single element of structure (considering one at a time and excluding the vocabulary) which would not be common to at least two different dialectal regions, in Spain or in America. Only a combination of two or more structural features, each shared with other regions, can be called characteristic of one dialect."

¹⁷ This is somewhat analogous to chemistry's continuing search for all the elements of the universe. No taxonomy is involved, only successively finer analyses and discriminations. Hence the system is not endangered when new elements are discovered or separated from larger compounds.

positions, we could divide the unit we call American Spanish into two groups, roughly similar in size. By considering a second binary feature, the pronunciation, pharyngeal (+) or other (–) of /x/, we could divide each of the /s/ groups into two, giving us four dialect units, with no mention made of a need or desire for contiguous geographical areas or zones. These four dialect units may be expressed in tabular form as follows:

/s/ retained	/x/ = [h]	Dialect Number
+	+	1
+	–	2
–	+	3
–	–	4

By adding more such features we increase the number of dialectal discriminations we can make on a phonological basis.¹⁸

The phonological features to be selected for this purpose should be those that (1) are relatively easy to define and observe, (2) are relatively consistent within a group of speakers, (3) can be specified binarily, (4) will yield the most meaningful or useful discriminations, and (5) can separate out the largest number of socio-political-geographical entities from each other. That is, features should be selected for utilization on the basis of their ease of specification and their DIALECT DISCRIMINATION LOAD. Our research has shown that the eight binarily specifiable features that follow can be expected to meet these requirements and have a high dialect discrimination load, while their small number will still yield a useful though manageable number (256) of potential dialect discriminations.¹⁹

¹⁸ Each time an additional criterial feature is added in this manner, the resulting number of dialect units or discriminations is doubled. Thus,

1	features yield	2	dialect units
2		4	
3		8	
4		16	
5		32	
6		64	
7		128	
8		256	
9		512	
10		1024	
15		32788	
20		1049216	
25		67149824	

For practical reasons, such a system of discriminations obviously cannot be carried too far, since adding just a few more features would soon result in more potential dialect units than there are people. It is again pointed out that any analytical system is by nature arbitrary, as are its criteria.

¹⁹ Complete specification of the criteria, phonetic environments involved, etc., for these features is presented in Chapter III in the instructions for the tables. This list and the following sample dialect identification are given here in order to clarify the intent of the present discussion.

Feature specified as

plus (+)	minus (-)
/s/ <i>regularly</i> retained as sibilant (<i>estados</i>)	Or not; i.e., may regularly or sometimes be [ϕ], [h], etc.
/r/ <i>regularly</i> a multiple apical trill [r̄] inter-vocalically (<i>perro</i>)	Or not; i.e., may regularly or sometimes be [r̄], [R], etc.
/x/ <i>regularly</i> a pharyngeal fricative [h] (<i>mujer</i>)	Or not; i.e., may regularly or sometimes be [x], [xy], etc.
/l/ and /y/ <i>regularly</i> distinguished (<i>calló, cayó</i>)	Or not; i.e., may regularly or sometimes sound the same.
/b/ <i>regularly</i> fricative after /l/ (<i>el bebé</i>)	Or not; i.e., may regularly or sometimes be occlusive [b].
/n/ final before following vowel or pause <i>regularly</i> [ŋ] (<i>corazón</i>)	Or not; i.e., may regularly or sometimes be [ŋ], [m], etc.
/l/ and /r/ <i>regularly</i> distinguished (<i>mal, mar</i>)	Or not; i.e., may regularly or sometimes sound the same.
Vowels <i>regularly</i> voiced in all positions (<i>leche</i>)	Or not; i.e. may regularly or sometimes be voiceless after voiceless consonants.

It would be impractical, however, to attempt to include all these eight features in just one table, since 256 lines would be required to represent the possible combinations. Instead, a method was devised for distributing all the combinations into two tables of 16 lines each. These are termed Table A and Table B and will be found on pages 12 and 15. Referring to Table A and to the preceding chart, we may observe that a given speaker has, for example, the following phonological features in his speech:

- /s/ is regularly retained as a sibilant in syllable-final and word-final positions (+)
- [r̄] is occasionally heard, but the speaker generally has [r̄]; i.e., /r̄/ is not regularly [r̄], so he is assigned (-)
- /x/ is regularly the velar fricative [x] (-)
- /l/ and /y/ are regularly distinguished; i.e., they share no phones in common and do not sound the same (+)

This particular combination, + - - +, is then traced to the seventh line of Table A and will be called Index Number (i.e., dialect number, loosely) A7. The Feature Index entries

on pages 52 to 247 of Chapter V tell us that the combination we call A7 has been observed and reported in several provinces of Argentina, in the mountains of Bolivia, in Norte de Santander, Colombia, in numerous parts of Ecuador, and in areas of Peru.

We have thus identified this speaker, if he is not atypical, as being from one of these regions; that is, as possessing a speech pattern with regard to these features similar to what has been observed and reported in the regions listed.

If this identification is sufficiently exact for the investigator's purpose, the dialect identification procedure may stop at this point. If more detail is desired, the investigator would proceed to Table B, which contains the remaining four of the eight primary features specified above. Again examining the speech of the same hypothetical informant while referring to Table B, we note that:

- /b/ in the group /lb/ is fricative, as in standard Spanish. (+)
- /n/ word-final before a following vowel or pause is regularly velar [ŋ] (-)
- /l/ and /r/ are regularly distinguished in all positions, as in the
standard language (i.e., they never sound the same) (+)
- Unstressed vowels are sometimes devoiced after /č/ (-)

This combination, + - + -, is found on a line near the middle of Table B, giving Index Numbers B22, B38, B54, B70, B86, B102, B118, etc. Since this informant's speech was assigned to combination A7 in Table A, the column under A7 is used in Table B, giving Index Number B118 for the total of the eight features. Reference to the Feature Index entries on pages 52-248 shows where the combination of features designated B118 has been reported, thus sharpening the degree of discrimination provided by the four features of Table A alone.

Tables C through N, to be introduced in Chapter III, will provide the investigator with even finer dialectal discrimination and specification when needed than are possible with the 256 potential discriminations provided by Table A and B. The use of the additional tables can be somewhat complicated and time consuming, however. They include many of the phonological features that have been observed by field workers as constituting dialectal variation within Spanish America, plus one morphological-syntactical feature carrying a very high dialect discrimination load: occurrence of the pronouns *vos* and *tú* and the corresponding verb forms in the present tense.

The two major tasks, then, in designing and elaborating a system that would readily enable the investigator to determine what linguistic community, if any, a given person's speech pattern were representative of, have been the following:

1. To determine experimentally and by observation which are the most useful phonological features for breaking down Latin American Spanish into the greatest number of minimally distinguishable units; i.e., to determine which features will have the highest dialect discrimination load, and to arrange and specify these features so as to make them both manageable and consistent for all users of the analytical system.
2. To compile and collate all pertinent available dialect geography data in a fashion consistent with the organization of the criteria of discrimination mentioned in Number 1 above. Since much field work has been performed and published on Latin American phonological variations, published data, rather than original field work, can be most

profitably used. The compilation and coordination of this information takes the form of the indexes in Chapter V. The Feature Index in that chapter is to be used when one wishes to locate geographically or socially a given observed feature or combination of features.

Cross indexing such data alphabetically by geography and social class makes certain other information readily available to the investigator. Referring to the Country Index in Chapter V, we find the same Index Number references to the tables arranged by countries and their subdivisions, permitting one to abstract a concise description of many of the dialectically determined phonological variants that have been observed in the country or region of interest.²⁰ Complete information on the use of the indexes is presented in Chapter V.

Since all information is footnoted in the two indexes, giving the (published) source from which it was taken, it is feasible to present conflicting data. If any of the included data were in error or resulted, for example, from selection of an unrepresentative sample by the original investigator, this could eventually be discovered and corrected, and aberrant or outdated information in the literature of the field (or errors in the compilation of the indexes) could eventually be weeded out and corrected.

²⁰ Indexes cross referenced by social class, age, race, and other factors have also been prepared. Such indexes are not included in this volume, however, because of the lack of consistent data, methodologically gathered and reported.

III

SPECIFICATION OF THE CRITERIA OF ANALYSIS

In this chapter we will attempt to specify many of the phonological phenomena which have been observed as having a high dialect discrimination load in American Spanish and to reduce the description of these phenomena to their key elements in the least ambiguous terms possible.

The standardization and reduction of terminology and criteria in this manner is an important step in the eventual meaningful and successful comparison of dialect data. For purposes of this study, this specification of dialect-discrimination criteria will take the form of instructions for the use of the tables.

The notions of regularity and phonetic patterning are of prime concern in the decision-making processes required in the use of the first two tables. The linguist must decide, for example, in the case of an informant who omits only one or two /s/'s in a long conversation or questionnaire whether these are to be considered anomalies, or whether they represent a phonological pattern in which [ϕ] is in fact an allophone of /s/ in some positions, even if an uncommon one. Every effort has been made in the compilation and selection of criteria in the tables and responses in the questionnaire presented in Chapter IV to make extended observation necessary in only rare cases. Apparent anomalies and accidental pronunciations, then, should be disregarded.

This same concept of phonetic patterning disallows the use of certain vocabulary items for making phonological judgements. The word *árbol*, for example, would be unsuitable as an example when attempting to decide whether /r/ and /l/ have undergone phonemic leveling in certain positions in an informant's dialect, since there is a strong tendency toward both assimilation of different liquids and dissimilation of like liquids when in close proximity in Spanish (cf. Latin *pelegrinus* > Spanish *peregrino*).²¹ Likewise, infinitives (ending in /r/) with the enclitic pronouns *le*, *lo*, *la*, etc., (*comerlo*) should be disregarded as examples of /l/-/r/ leveling, since assimilation of the /r/ and /l/ here would not necessarily be indicative of the more general pattern of confusion in these two phonemes. It would be beyond the scope of this volume to provide a complete list of items or types of items to be avoided; the examples provided in the tables and in the body of this chapter may be considered as typical, relatively safe examples of each feature. In addition, a verbal questionnaire is presented in Chapter IV which will enable

²¹ See, e.g., Alonso and Lida, "Geografía fonética".

the rapid and efficient elicitation of the data needed in the proper phonetic environments to make a dialect identification.

It was originally expected that specification of the degree of openness of vowels could be included since this is often correlated with geographical as well as phonetic environment. To make such an inclusion would have complicated the tables beyond any degree of usefulness obtainable from such vowel information, since the total number of combinations resulting from the specification necessary for each case of combined environmental as well as dialectal conditioning would have been unmanageable, using currently available methods of comparison. In addition, there is a good deal of variation within and between individuals in a group, as witnessed by Tomás Navarro's study of vowels in Puerto Rico.²² Certainly, extreme cases of closing of vowels, especially stressed vowels, have dialectal significance. Reports of /é/-/í/ and /ó/-/ú/ leveling are common for Andean regions of Quechua influence.²³

Navarro says here in regard to vowel quality that there are some geographical trends, but that he does not see "*una clara repartición geográfica*". Unfortunately, some twenty-five years after he wrote this, the geographical distribution of this potentially lucrative data still seems unclear.

The original plan for this study also included specification of the phonetic treatment of /b, d, g, p, t, k, s/ in combination with certain other consonants (*absoluto*, *administrador*, *Ignacio*, *aceptar*, *concepción*, *atmósfera*, *insecto*, *exacto*, etc.). These consonant clusters, known as *grupos cultos* in Spanish, exhibit some dialectally determined variation, yielding such pronunciations as [aksolúto], [alministradór], [asektár], etc., with different means of treating these groups prevelant, though often not exclusively, in different regions. As with the vowels, the complicated indexing necessary to include this body of data would not have been justified by its usefulness.

Finally, because of the lack of widely accepted objective terminology and of field reports of an objective nature, no suprasegmental features have been included in the data compared and tabulated here, despite the fact that intonation is perhaps the phonological feature most generally used by Latin Americans in characterizing and imitating the speech of other Latin American regions.

²² T. Navarro, *El español en Puerto Rico* (1948), esp. pp. 44-45.

²³ Canfield, *La pronunciación*, pp. 93-94.

TABLE A

/s/ retained	/r/ = [r]	/x/ = [h]	/l/ - /y/ dist.	Index Number
+	+	+	+	A1
+	+	+	-	A2
+	+	-	+	A3
+	+	-	-	A4
+	-	+	+	A5
+	-	+	-	A6
+	-	-	+	A7
+	-	-	-	A8
-	+	+	+	A9
-	+	+	-	A10
-	+	-	+	A11
-	+	-	-	A12
-	-	+	+	A13
-	-	+	-	A14
-	-	-	+	A15
-	-	-	-	A16

Table A is the first and most important table to be used when making a dialect identification. Partial instructions for the use of Tables A and B were included in Chapter II, but are presented here for fuller explanation of the abbreviated headings in each Table.

TABLE A - FIRST COLUMN

/s/ retained: A plus will be assigned to this category in a given person's speech if he regularly and consistently retains /s/ as a sibilant in syllable-final and word-final positions as in standard Castilian. A minus will be assigned if /s/ is not regularly a sibilant, in which case it may be [ϕ] (zero), or [h], or any other sound. As mentioned before, regularity is important in the assigning of a plus in this and certain other categories in the tables; the linguist must decide in the case of an informant who omits only one or two /s/'s in a long conversation whether these are to be considered anomalies, or whether they represent a phonological pattern in which [ϕ] is in fact an allophone of /s/ in some positions, even if an uncommon one. Anomalies and accidental pronunciations should be disregarded. A minus should be assigned if /s/ is either sometimes or regularly omitted or aspirated.

Examples:

(plus)		(minus)
[estádos unídos]	<i>Estados Unidos</i>	[ehtádos unídos]
[las señóras]	<i>las señoras</i>	[la heñóra]
[las káyes]	<i>las calles</i>	[la káye]
[laz gayíñas]	<i>las gallinas</i>	[la gayíñas]

The dropping or aspiration of the /s/ phoneme in Spanish is generally regarded as occurring only in syllable-final and word-final positions, and these are the only environments that need to be considered when assigning the (+) or (–) of the first column of Table A. In many regions this process has evolved even further, and utterances such as [hí heñór] or [hí heñól] (*sí, señor*) and [nohótro] (*nosotros*) are common. An unusual phenomenon occurs in at least one region, the city of Cartago in el Valle, Colombia. Syllable and word-final /s/ are retained with a high degree of consistency, while word-initial /s/ is frequently aspirated ([la heñóra] *la señora*). In cases where final /s/ is not affected, a plus should be assigned.

Since the standard language does not retain /s/ before orthographic *r*, this combination should be disregarded. Finally, the partial assimilation of /s/ into a following /b/ or /d/ (and /g/?) is quite common in some areas of otherwise total retention, such as San José, Costa Rica, and should likewise not be considered.

TABLE A – SECOND COLUMN

/r/ = [r̄]: A plus will be assigned to this category in a given person's speech if he regularly and consistently pronounces a voiced apical multiple trill for orthographic *rr* between vowels within a word and for orthographic *r* in word-initial position following a final orthographic vowel of the preceding word in the same breath group. That is, consider *perro* and *la rata*, but disregard *el ratón*. Any other pronunciation, or vacillation between [r̄] and any other sound, will result in a minus. Examples:

(plus)		(minus)
[pé̄ro]	<i>perro</i>	[pé̄ro]
[la řáta kóre]	<i>la rata corre</i>	[la řáta kóre]

The stipulation that intervocalic /r̄/ be considered is necessary since the pronunciation of the /r̄/ may be affected by the articulation of a preceding consonant or by its being in initial position after a pause.

It should be noted that Table A does not permit specification of the /r̄/ allophone used by the speaker if this allophone is not the voiced apical multiple trill [r̄], as only a binary choice is possible here. Table J permits specification of seven different allophones of /r̄/, including the possibility that a person will alternate between two or more of them in his speech.

TABLE A – THIRD COLUMN

/x/ = [h]: A plus will be assigned to this category in a given person's speech if he regularly and consistently pronounces a weak pharyngeal (glottal) fricative [h] (similar to English [h]) for orthographic *g* before *e* or *i* and for orthographic *j* in all positions (except word final, which should be disregarded). A minus will be assigned if the informant does not regularly have [h] in all positions, in which case he may have [x], [ç], lenis

[x], etc.; or he may have [h] much of the time, but not consistently, for which a minus will also be assigned.

Examples:

(plus)		(minus)
[káha rōha]	<i>caja roja</i>	[káha rōxa]
[muhér]	<i>mujer</i>	[muxyér]
[hén-te]	<i>gente</i>	[çén-te]

Although the allophones of the /x/ phoneme are generally described as voiceless, a voiced pronunciation is sometimes heard intervocalically. Since this appears to be conditioned by phonetic environment rather than by linguistic geography, it should be disregarded here.

The binary nature of this table does not permit specification of the type of /x/ present in the informant's speech if it is not [h]; specification of other "jota" variants found in American Spanish is possible in Table L.

TABLE A - FOURTH COLUMN

/l/-/y/ distinguished: A plus will be assigned to this category if these two historically distinct phonemes are regularly and consistently distinguished in all positions in a given person's speech and minimal pairs are possible on this distinction, which is represented orthographically by *ll* and *y*, respectively. A minus will be assigned if /l/ and /y/ are regularly or sometimes leveled and share a phone or phones in common in any position. Examples:

(plus)	(minus)
<i>se calló</i> and <i>se cayó</i> sound different	<i>se calló</i> and <i>se cayó</i> sound the same
<i>llave</i> and <i>yema</i> have different initial sounds	<i>llave</i> and <i>yema</i> have the same initial sounds

Since the *y* of diphthongs of the type *soy*, *muy*, *ley* is often associated with this same /y/ phoneme, it is mentioned here that it should be disregarded for our purposes. In addition, the /y/ of the diphthong represented orthographically as *hie*, *hia*, (*hielo*, *hiato*) should be disregarded, since it does not follow the general /y/ pattern in certain regions.

Since only a binary decision is possible here, Table A treats just the phonemic aspect of /l/ and /y/; Table G deals with the phonetic variations of these two phonemes.

After making the four binary decisions and arriving at the combination of pluses and minuses required in Table A, the user then locates that combination on Table A to determine the Index Number (for example, + - + + is A5.) From there the user may proceed to the Feature Index in Chapter V for a list of where this combination of features is found, or he may go on to Table B for even finer dialect discrimination before consulting the index.

Detailed criteria and instructions for Table B follow in the next few pages. Upon arriving at the correct combination of Table B criteria, as was done for Table A, the user then locates this combination on the proper line in Table B, again reading horizontally. Assuming this combination to be, for example's sake, - + + -, we arrive at the line containing Table B Index Numbers (B)26, 42, 58, 74, 90, 106, 122, etc. Since the Table A Index Number for this hypothetical informant was A5, we read down from column A5 to arrive at B90, thus incorporating all the information and decisions of Table A into the Table B Index Number.

B90 is then located in the index in Chapter V for a list of where this combination of features has been reported, thus "identifying" the dialect of the informant, to the degree of specification afforded by these eight features as reported in the sources used to compile the index.

Even further dialect discrimination is possible by comparing the list of regions designated under B90 with the list corresponding to the proper Index Numbers of each of the Tables C through N, which are presented following Table B, and discovering which region or regions appear under those Index Numbers corresponding to the informant's speech pattern.

TABLE B

					TABLE B															
					INDEX NUMBER															
/b/ fricative	/n/ final = [n]	/l/ & /r/ dist.	Vowels voiced		A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16
+	+	+	+	B17	33	49	65	81	97	113	129	145	161	177	193	209	225	241	257	
+	+	+	-	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242	258	
+	+	-	+	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243	259	
+	+	-	-	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244	260	
+	-	+	+	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245	261	
+	-	+	-	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246	262	
+	-	-	+	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247	263	
+	-	-	-	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	
-	+	+	+	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249	265	
-	+	+	-	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250	266	
-	+	-	+	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	
-	+	-	-	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252	268	
-	-	+	+	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253	269	
-	-	+	-	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254	270	
-	-	-	+	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255	271	
-	-	-	-	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	

TABLE B - FIRST COLUMN

/b/ fricative: A plus will be assigned to this category in a given person's speech if he regularly and consistently pronounces a voiced labial fricative consonant [b] (or even [v]) for orthographic *v* or *b* after orthographic *l* of the same word or preceding word in the same breath group. A minus will be assigned if this /b/ is sometimes or regularly occlusive [b] rather than fricative.

Examples:

(plus)		(minus)
[el b̃anko]	<i>el banco</i>	[el b̃anko]
[álba]	<i>alba</i>	[álba]
[er bebé]	<i>el bebé</i>	[er bebé]
[albérto]	<i>Alberto</i>	[abérto]
[mil vákas]	<i>mil vacas</i>	[mil bákas]

As can be seen in the above examples, there is no requirement that /l/ be the [l] of the standard language, since it is the phonemic and historical nature of the /l/, rather than its phonetic manifestation, which seems to produce the occlusive [b] in this position in those dialects in which it occurs. Likewise, there is no requirement in assigning a plus that the fricative be bilabial rather than labiodental, since it appears that the labiodental is in fact used in normal unaffected speech in a few regions in Spanish America,²⁴ and the element of interest here is the occlusion or not of the consonant. More detailed specification of the nature of the /b/ is made possible in Tables C and D.

Examples of /lb/ in the orthographic groups *beu*, *bui* should be disregarded, since this *b* does not always represent a labial sound ([el gwéy] *el buey*).

The phonetic treatment of /b/ in the group /lb/ is indicative of a larger, though not entirely consistent, dialectally determined pattern, involving /b/, /d/, and /g/ each after /l/, /r/, /s/, /y/, and /w/ (*alba*, *arbusto*, *las vacas*, *soy vago*, *aldea*, *verdad*, *los dos*, *soy de*, *deuda*, *algo*, *orgullo*, *rasgo*, *oiga*, *augusto*). The standard language has fricative [b, d, g] in all of the above combinations except *ld*, which has occlusive [d]. In El Salvador, Nicaragua, and Honduras all of the above are consistently occlusive, and Colombia and Costa Rica also have a strong tendency toward occlusive [b, d, g] in these combinations.²⁵

The entire /b, d, g/ after /l, r, s, y, w/ pattern could have been included in this table both easily and profitably, being specified as the standard language's pattern (plus) vs. any deviation (minus). Instead, the frequent combination /lb/ was selected in order to avoid the need for prolonged observation of all combinations before making the plus-minus decision for each informant. Specification of the other combinations, when desired, is possible with Table D.

It is interesting to note that minimal pairs should be possible, at least in theory, in dialects having the combination of /s/ = [φ], plus occlusive [b] after orthographic *s*. Since the /s/ in /sb/ need not be pronounced in order for it to produce an occlusive [b], [la báka] (*la vaca*) should be distinguishable from [la báka] (*las vacas*) according to the phonetic character of the /b/.

²⁴ Canfield, *La pronunciación*, p. 69 and Map VIII.

²⁵ Canfield, *La pronunciación*, pp. 77-78. Also, to a lesser extent, the Caribbean and other areas. Note the difficulty in obtaining samples of the combinations having orthographic *u* as the second element of the diphthong; they are very rare in native Spanish words and never occur in word-final position, where they could affect the following consonant. Orthographic *o* after another vowel is sometimes rendered as a diphthong in much of Spanish America, possibly yielding additional cases of /b, d, g/ after /w/.

TABLE B – SECOND COLUMN

/n/ final = [n]: A plus will be assigned to this category in a given person's speech if he regularly and consistently pronounces a standard voiced apicoalveolar (or apicodental) nasal [n] in word-final position before a following vowel or a pause, as in the standard language. Any other pronunciation, or vacillation between alveolar (or dental) [n] and any other sound before a vowel or pause, will result in a minus.

Examples:

(plus)		(minus)
[kyéro pán]	<i>quiero pan</i>	[kyéro paŋ]
[korasón]	<i>corazón</i>	[korasóm]; [korasó]
[áblan españól]	<i>hablan español</i>	[áblaŋ españól]
[en el korasón]	<i>en el corazón</i>	[en el korasón]

Final /n/ before a following consonant should be disregarded, since the point of articulation of that consonant may affect the pronunciation of the /n/ ([pám blánko] *pan blanco*).

Although for purposes of this study it is not necessary to establish an additional phoneme here, minimal pairs are possible on the final [n]-[ŋ] (or [m]) distinction in certain dialects ([enágwas] vs. [eŋ ágwas] *enaguas* vs. *en aguas*).²⁶

Table B does not permit specification of the allophone of /n/ used by the speaker if this allophone is not [n], since only a binary choice is possible. Table H permits specification of several allophonic variations.

TABLE B – THIRD COLUMN

/l/ and /r/ distinguished: A plus will be assigned to this category for a given person's speech if these phonemes, which correspond to orthographic *l* and *r* respectively, are regularly and consistently distinguished in all positions as in the standard language and are never leveled. A minus will be assigned if /l/ and /r/ are sometimes or regularly interchanged or leveled in any position; i.e., if they share any phones in common and minimal pair distinctions of the standard language are or could be lost.

Examples:

(plus)		(minus)
[byémes]	<i>viernes</i>	[byélnes]
[el doktór]	<i>el doctor</i>	[eɫ doktóɫ]
[áɫto]	<i>alto</i>	[árto]
[kárne]	<i>carne</i>	[káhne]
[komér]	<i>comer</i>	[koméɔ]
[péro]	<i>pero</i>	[pélo]
[árto]	<i>harto</i>	[áɫto]

²⁶ See, e.g., Stockwell *et al.*, "Spanish Juncture and Intonation".

There are no fewer than twenty dialectally determined allophones of /l/ and /r/ in Latin American Spanish, some of which will affect the status of these phonemes while others will not.²⁷ A plus-minus decision in this category could therefore be difficult to make in some cases without prolonged observation and comparison. As a shortcut, then, it can generally be assumed that no phonemic confusion, leveling, or overlapping has taken place, and a plus can generally be assigned, if (1) *l* in, e.g., *alto*, *mal*, *pelo*, is the voiced apicoalveolar or apicodental lateral [l]; and in addition if (2) *r* in, e.g., *viernes*, *mar*, *pero*, *parte*, is any apicoalveolar or prepalatal consonant except [l], [ʃ], [n], [z], or [z^h].

A minus can generally be assigned if other than an apicoalveolar or prepalatal sound is ever heard for /r/; or if other than the voiced apicoalveolar or apicodental lateral [l] is ever heard for /l/; or if [r, n, ɲ, z, h], or assimilation is ever heard for either. A minus can also be assigned if [ɸ] is heard for both /l/ and /r/.²⁸

The leveling of these two phonemes, in those dialects in which it occurs, takes place generally, but not exclusively, in syllable-final and word-final position; nevertheless, no specification of position need be made here, and a minus should be assigned if there is mutual sharing of phones in any position. The orthographic group *li* plus a vowel should be disregarded, since it may contain the voiced palatal lateral [ɭ] (*Liana*).

This table treats only the phonemic aspect of /l/ and /r/. Specification of many of the allophones involved is made possible in Table I.

TABLE B – FOURTH COLUMN

Vowels voiced: A plus will be assigned to this category in a given person's speech if he regularly pronounces voiced vowels in all positions, as in the standard language. A minus will be assigned if vowels are sometimes or consistently devoiced or aspirated or lost after and/or between voiceless consonants, or before a pause.

Examples:

(plus)		(minus)
[bóka]	<i>boca</i>	[bóka]
[léče]	<i>leche</i>	[léčh]
[múčos aksidéntes]	<i>muchos accidentes</i>	[múčos aksidéntes]
[pókas čínčes]	<i>pocas chinches</i>	[pókas čínčes]

The phenomenon (or perhaps phenomena) to which we are assigning a minus has been variously described in the literature as loss (*pérdida*), falling (*caída*), and devoicing (*ensordecimiento*) of unstressed vowels.²⁹

²⁷ [r, ɾ, l, ɾ̃, ɾ̃̃, ɾ̃̃̃, l̃, ɸ, i, d, n, n^h, z, z^h, h, h̃, M̃, Ñ] and assimilation to the following consonant. See also Table I.

²⁸ For a discussion of types of examples to be avoided in determining the presence of a pattern of /l/-/r/ leveling, see page 30.

²⁹ Some other vocalic phenomena, none of which are considered in the present tables, are closing (*cierre* or *cerrazón*), opening (*abertura*), relaxation (*relajamiento* or *relajación*), weakening

The notion of regularity and consistency is important in the assigning of the plus in this category. As mentioned for /s/ in Table A, the linguist must decide in the case of an informant who either devoices or drops only one or two vowels in a conversation or a questionnaire whether these are to be considered anomalies, or whether they represent a phonological pattern in which devoicing is in fact at least an occasional allophonic variation on vowels in some positions, in which latter case a minus will be assigned.

The dropping of vowels and certain entire syllables in pretonic position is common in Spanish and should be disregarded here ([tá] *está*, [kwéla] *escuela*).

TABLES C THROUGH N

Tables C through N permit specification of phonological features in much greater detail when desired than was possible with the binary decisions required in Table A and B. Tables C through N are each indexed separately and are not interrelated as were A and B. After arriving at the Table B Index Number and consulting the appropriate index, the investigator will in some cases have a rather extensive list of places where the particular combination of features under consideration is found. Desiring a finer dialect discrimination, the investigator would then consult, for example, Table J if he had at hand additional information on the phonetic manifestations of /r/ beyond that useable in Table A.

In the case of /r/ and Table J, such additional information would include specification of the phonetic variants of /r/ used in addition to or other than [r̄]. Index Number J1 is used if [r̄] is found. J2 is used if [r̄̃], a very weak voiced apicoalveolar or prepalatal fricative, is found. J3 is used if [r̥̄], a voiceless apicoalveolar or prepalatal assibilated fricative, is found, etc. Reference to the Feature Index will show where each of these sounds has been observed and reported. If Bogota, for example, appears under both J1 and J2 in the index, this would indicate that both [r̄] and [r̄̃] have been reported as being heard in this city. Abbreviated notes in the indexes will also indicate to the investigator that a particular feature is found in a given area, but is rare, or is found there only among speakers of a certain social class, age group, etc. Complete information for the use of the indexes will be found in Chapter V.

By comparing the lists of regions, social classes, etc., obtained through Table B and/or A with the lists obtained through using the other tables and their corresponding Index

(*debilitación*), shortening, which for some reason is hardly ever mentioned with regard to Spanish vowels (*abreviamiento*), lengthening, which is frequently discussed (*alargamiento*), elision (*elisión*), reduction to a semivowel between words (*sinalefa*), loss of quality (*pérdida de timbre*), and nasalization (*nasalización*). The widely used term *vocales caducas* appears to include several of these categories as well as *pérdida* and *caída*. In his *Diccionario de términos filológicos*, Fernando Lázaro Carreter offers the following definition for *caduco*: "Sonido con escaso poder distintivo, que ha dejado de pronunciarse (aunque se siga representando en la escritura), o se pronuncia relajada e indistintamente. Así, por ejemplo, la -e final en francés, la -d de las terminaciones -ado, en español, etc."

For more complete discussion of several of the above, see especially Boyd-Bowman, "La pérdida de vocales átonas"; Canellada and Zamora Vicente, "Vocales caducas", and the reaction of Lope Blanch in "En torno a las vocales caedizas"; and Ávila, "Fonemas vocálicos".

Numbers, the investigator should be able, by process of elimination, to narrow down the list of places of which the informant's speech is typical. For example, if Bogota appeared in the index under all or almost all of the Index Numbers corresponding to sounds in the informant's speech, including B90, while some other region appeared under B90 and under several other but fewer Index Numbers corresponding to the informant's speech than did Bogota, this would be an indication that the informant more probably came from Bogota. That is, in preparing a list of places in order of probability of the informant's place of origin, the region most frequently appearing under those Index Numbers corresponding to the informant's speech pattern would be the most probable place of origin. This would constitute, then, the full dialect-identification procedure. A complete sample dialect identification will be presented later, to fully illustrate the procedure.

As mentioned in Chapters I and II, other uses for the tables and indexes are also possible. These will be discussed in Chapter V.

The examples within each of the following tables correspond to the responses in the verbal questionnaire in Appendix A. This questionnaire is designed to elicit the pronunciations under study in each table in the precise phonetic environment specified, thus eliminating the need for constant referral to the criteria of analysis while making a dialect identification and simplifying greatly the use of this system.

TABLE C – INTERVOCALIC /b,d,g/

The corresponding Index Number is assigned for each feature heard sometimes or regularly.

Index Number	<i>cerrados, tapados, jorobado, corcovado, dedo, amigas</i>	
C1	/d/ retained in -ado as [ádo] or [ádo] _e	[serádos], [horobádo]
C2	/d/ lost in -ado: [áo] or [áw]	[seráos], [horobáo]
C3	[v] heard for /b/	[horovádo]
C4	Intervocalic /b/ occlusive	[horobádo]
C5	Intervocalic /d/ occlusive	[dédo]
C6	Intervocalic /g/ occlusive	[amígas]

TABLE C – INTERVOCALIC /b,d,g/

Referring to Table C, the corresponding Index Number is assigned for each feature sometimes or regularly present in the informant's speech.

C1 will be assigned if the informant sometimes or regularly retains a voiced

apicodental or apicointerdental fricative in the suffix *-ado* in his normal speech ([tapádo] *tapado*). This fricative may be considerably weakened ([d̪]), but C1 will nevertheless be assigned if any audible friction is present. C1 will likewise be assigned if the tongue approaches the teeth without touching, in which case the friction may be either inaudible or barely audible, but the surrounding vowels will be affected.

C2 will be assigned if no attempt is made at pronouncing the /d/ in the suffix *-ado*, and [áo] or the diphthong [áw] results ([tapáo], [tapáw]). If both [ádo] and [áo] or [áw] are heard, then both C1 and C2 will be assigned, and this vacillation will hopefully be reflected in the index by the appearance of the informant's region under both Index Numbers, as well as by other indications in the index.

C3 will be assigned if labiodental [v] is sometimes or consistently heard for normally bilabial *b* and/or *v* in the informant's speech ([havón], [la váka] *jabón, la vaca*). No Index Number is assigned if the informant's intervocalic /b/ is not labiodental.

C4, C5, C6 will be assigned if /b/ (C4), /d/ (C5), /g/ (C6) are sometimes or regularly occlusive between vowels within a word in normal speech at conversational speed ([el kódo] *el codo*). No Index Number is assigned if the informant's intervocalic /b,d,g/ are not occlusive in his normal speech. The phenomenon of /d/ sometimes becoming a flap [r] should be disregarded here. It should be noted that the assignment of both C2 and C5 is quite feasible, since, as in the case of Puerto Rico, intervocalic /d/ may sometimes be dropped and other times be pronounced as an occlusive.

TABLE D — /b,d,g/ after /l,r,s,y,w/

The corresponding Index Number is assigned for each pronunciation heard sometimes or regularly.

Index Number	<i>calvo, salga, curvas, sordo, largo, las vacas, buenos días, las gallinas, más grande, muy bajo, deudas, muy grande</i>
D1	/b, d, g/ all standard after /l, r, s, y, w/
D2	occlusive [b] heard in <i>lb, lv</i> [kálbo]
D3	occlusive [g] heard in <i>lg</i> [sálga]
D4	occlusive [b] heard in <i>rb, rv</i> [kúrbas]
D5	occlusive [d] heard in <i>rd</i> [sórdó]
D6	occlusive [g] heard in <i>rg</i> [lárgo]
D7	occlusive [b] heard in <i>sb, zb, sv, zv</i> [laz bákas]
D8	occlusive [d] heard in <i>sd, zd</i> [bwénoz días]
D9	occlusive [g] heard in <i>sg, zg</i> [laz galínas]
D10	occlusive [b] heard after semivowels /y, w/ [múy báxo]
D11	occlusive [d] heard after semivowels /y, w/ [déwda]
D12	occlusive [g] heard after semivowels /y, w/ [múy gránde]
D13	/b, d, g/ all occlusive after /l, r, s, y, w/

TABLE D - /b,d,g/ after /l,r,s,y,w/

Table D presents a fuller picture of the phonetic manifestations of /b,d,g/ after /l,r,s,y,w/ than was possible in Table B. All the considerations discussed in regard to this category in Table B on page 15 apply here as well.

Referring to Table D, the corresponding Index Number is assigned if that feature is sometimes or regularly present in the informant's speech.

D1 will be assigned if /b,d,g/ after /l,r,s,y,w/ are all regularly and consistently pronounced as in the standard language. That is, D1 will be assigned if /ld/ is occlusive and all others are the fricatives [b̥, d̥, g̥] or the weakened fricatives [b̥̥, d̥̥, g̥̥], or [v] for /b/. If /l/ and /r/ are phonemically leveled, causing orthographic *rd* to follow the *ld* pattern, the /d/ pattern will still be considered as that of the standard language, and D1 may still be assigned ([hardín] and [haldín] *jardín*, both D1).

D2 will be assigned if /b/ in orthographic *lb* and/or *lv* is regularly or sometimes a voiced occlusive, as in Table B ([el bebé] *el bebé*, [kálbo] *calvo*).

In the same manner:

D3 will be assigned if /g/ in orthographic *lg* (before *a,o,u*) is sometimes or regularly a voiced occlusive ([álgo], [aígo] *algo*, [sálga] *salga*).

D4 will be assigned if /b/ in orthographic *rb* and/or *rv* is sometimes or regularly a voiced occlusive ([kúrbas], [kúlbas] *curvas*).

D5 will be assigned if /d/ in orthographic *rd* is sometimes or regularly a voiced occlusive ([hardín], *jardín*). For [ld] from /rd/, see D1, above.

D6 will be assigned if /g/ in orthographic *rg* (before *a,o,u*) is sometimes or regularly a voiced occlusive ([lárgo], [lággo] *largo*).

D7 will be assigned if /b/ in orthographic *sb*, *zb*, *sv*, and/or *zv* is sometimes or regularly a voiced occlusive ([laz bákas], [lah bákah] *las vacas*).

D8 will be assigned if /d/ in orthographic *sd* and/or *zd* is sometimes or regularly a voiced occlusive ([loz dós], [lo dó] *los dos*).

D9 will be assigned if /g/ in orthographic *sg* and/or *zg* (before *a,o,u*) is sometimes or regularly a voiced occlusive ([huzgár], [huhgár] *juzgar*).

D10 will be assigned if /b/ following a semivowel of the standard language (orthographic *ib*, *iv*, *yb*, *yv*, *ub*, *uv*) is sometimes or regularly a voiced occlusive ([múy báxo] *muy bajo*).

D11 will be assigned if /d/ following a semivowel of the standard language (orthographic *id*, *yd*, *ud*) is sometimes or regularly a voiced occlusive ([dédwa], [débda] *deuda*).

D12 will be assigned if /g/ following a semivowel of the standard language (orthographic *ig*, *yg*, *ug*, before *a,o,u*) is sometimes or regularly a voiced occlusive ([óyga] *oiga*, [áy gás] *hay gas*).

D13 will be assigned in lieu of D2 through D12 if D2 through D12 would all otherwise be assigned, sometimes or regularly.³⁰

As in Table B, and as reflected in the examples for D1 through D12, assignment or not of an Index Number will not be affected by the phonetic manifestation of the phoneme

³⁰ Because of the rarity of examples of /wb/ and /wg/, these may be ignored in assigning D10, D12, and D13.

preceding the /b,d,g/, except in the case of /rd/ becoming occlusive [ld], which will be considered as following the normal (D1) pattern. Only the occlusion or frication of the /b,d,g/ will be considered: [hardín] is D5; [haldín] is D1; [loz dós] and [lo dó] both D8.

Although there is no requirement in this table that the /b,d,g/ be followed by a vowel, examples with following consonants should be used with care, to avoid cases of environmental effects on /b,d,g/. However, as in Table B, examples of *b* and *g* followed by /w/ (*bue*, *bui*, *gua*, *güe*, *güi*, *guo*) should always be disregarded.

Assignment of D1 to the speech of a given informant indicates that /b,d,g/ after /l,r,s,y,w/ are all regularly and consistently (not sometimes) as in the standard language. When any of the features D2 through D12 or the combination D13 are assigned, a notation such as "always, frequently, sometimes, occasionally, rare, sporadic" may be made to indicate its consistency or variability.

There are published reports of /ld/ appearing as [ld], as well as /b,d,g/ appearing as fricative [b̥,d̥,g̥] after a pause and after nasals. These phenomena are not treated in the tables, nor are the vocalization or the loss of these consonants (except the /d/ in *-ado*) or occlusion before other consonants.

The detailed specification of occlusive [b,d,g] in the environments included in this table is occasioned by two considerations: (1) that this phenomenon bears careful observation, since it may well be considerably more widespread in American Spanish than has generally been reported or acknowledged in the past, with the implication that we are possibly witnessing a phonological change in progress; and (2) that the method of comparison of dialect data on a large scale being elaborated here can perhaps best demonstrate its potential usefulness to linguistic science by providing categories, criteria, and a format to standardize and simplify the observation, reporting, and comparison of such information, so that its value to dialectology, historical linguistics, and phonetic theory can be realized.

TABLE E — /č/

The corresponding Index Number will be assigned for each pronunciation heard sometimes or regularly.

Index Number	<i>chimenea, mucho</i>	
E1	[č] heard	[čimenéa], [múčo]
E2	[tš] heard	[tšimenéa], [mútšo]
E3	[ty] heard	[tyimenéa], [mútyo]
E4	[š] heard	[šimenéa], [múšo]

TABLE E - /č/

Referring to Table E, the corresponding Index Number is assigned for each variety of /č/ heard sometimes or regularly in the informant's speech. That is, if the informant vacillated between [č] and [tš], he would come under both Index Numbers E1 and E2. A region found in the index under both these Index Numbers would, then, be more probably the informant's place of origin than would a region appearing under only one or under neither of these numbers.

Examples:

		Index Number
[la čimenéa]	<i>la chimenea</i>	E1
[tšfle]	<i>Chile</i>	E2

When possible, only initial and intervocalic č/ should be considered in order to avoid non-dialectal phonetic variations.

Note that there is no requirement of regularity for assignment of Index Numbers in this table, only that anomalies and accidental pronunciations should be disregarded. As with the other tables, provision is made in the indexes to show the consistency or amount of variation in each pronunciation.

Explanation of symbols:

- [č]: Voiceless alveopalatal affricate, the second element of which is [š].
 [tš]: Voiceless apicoalveolar affricate, in which the second element is similar to the Castilian apicoalveolar thick [š], rather than to the alveopalatal [š] found in [č].
 [ty]: Voiceless palatal affricate, the second element of which begins with a voiceless y-glide. Described by some writers as a sound in which "*predomina la oclusión y se reduce la fricación*".
 [š]: Voiceless alveopalatal fricative, similar to English [ʃ] as in *sheep*.

TABLE F - /f/

The corresponding Index Number is assigned for each pronunciation heard sometimes or regularly.

Index Number	<i>café, fuerte, futuro</i>	
F1	[f] heard	[kafé], [futúro]
F2	[ɸ] heard	[kapé], [ɸutúro]
F3	mixed [fɸ] heard	[kafé], [fɸutúro]
F4	f aspirated or velar before any back vowel and/or /w/	[xwéte], [xutúro]
F5	f aspirated or velar before any front vowel	[kaxé]

TABLE F - /f/

Referring to Table F, the corresponding Index Number is assigned for each variety of /f/ heard sometimes or regularly in the informant's speech in word-initial position before a vowel and in intervocalic position, corresponding to orthographic *f*. That is, if the informant vacillated between [f] and [ɸ] he would come under both Index Numbers F1 and F2. A region found in the index under both these Index Numbers would, then, more probably be the informant's place of origin than would a region appearing under only one or neither of these Numbers.

Examples:

		Index Number
[kafé]	<i>café</i>	F1
[kapé]	<i>café</i>	F2
[kafɸé]	<i>café</i>	F3
[hwérte]	<i>fuerte</i>	F4
[fwérte]	<i>fuerte</i>	none
[kaxé]	<i>café</i>	F5

Explanation of symbols:

[f]: Voiceless labiodental fricative.

[ɸ]: Voiceless bilabial fricative, generally weaker and of lower pitch than [f].

[fɸ]: Voiceless mixed bilabial-labiodental articulation.

f aspirated: may be similar to the various allophones of /x/ described in the instructions to Table L. Generally either the voiceless velar fricative [x] or the voiceless pharyngeal fricative [ħ], either of which may be accompanied by lip rounding.

TABLE G – /l/ and /y/

The corresponding Index Number is assigned for each pronunciation heard.

Index Number	<i>llave, amarillo, payaso, mayo, yema, hielo, yo</i>		
G1	lleísmo: /l/ – /y/ distinguished		
G2	yeísmo: /l/ – /y/ leveled		
G3	/l/ – /y/ sometimes distinguished, sometimes leveled		
G4	<i>hie-</i> pronounced differently from <i>ye-</i>	[yélo], [zéma]	
G5	[ž] heard in any position	[žo], [amarízo], [pažáso]	/y/ (and /l/ if leveled) if distinguished
G6	[š] heard in any position	[šo], [amarišo], [pašáso]	
G7	[ý] heard initial after pause	[ýéma], [ýo], [ýábe]	
G8	[ý] heard intervocalic in word	[paýáso], [amariýo]	
G9	[y] heard in any position	[yo], [amariyo], [payáso]	
G10	[i] heard in any position	[léma], [máio]	
G11	[ø] heard in any position	[máo]	
G12	[l] heard in any position	[amarílo]	if distinguished
G13	[ž] heard in any position	[amarízo]	
G14	[š] heard in any position	[amarišo]	

TABLE G – /l/ and /y/

Table G presents a fuller picture of the phonetic and phonemic manifestations of /l/ and /y/ than was possible with the binary decisions required in Table A. All the considerations discussed in regard to this category in Table A apply here as well.

Referring to Table G, the corresponding Index Number is first assigned for phonemic distinction or leveling of /l/ and /y/ in all positions in the informant's speech, and then for each variety of /l/ and/or /y/ heard in the environments specified.

G1 is assigned if *lleísmo* is a characteristic of the informant's speech, that is, if /l/ and /y/ are found to be phonemically distinct.

G2 is assigned if *yeísmo* is a characteristic of the informant's speech, that is, if /l/ and /y/ are phonemically leveled and share phones in common.

G3 is assigned if the informant's speech shows inconsistency in the phonemic separation of /l/ and /y/ and they are heard sometimes distinguished and sometimes leveled. A notation may be made regarding the predominance of one treatment or the other for comparison with comments in the index entries.

G4 is assigned if words with *hie-* are regularly pronounced differently from words with *ye-* ([yélo], [yéma], *hielo*, *yema* = G4 and G7). If *hie-* and *ye-* are pronounced the same, then G4 is not used ([žélo], [žéma] = G5). When not the same as *ye-*, the pronunciation of *hie-* will generally be [ye] or [i̯e]. No provision is made for recording this in the indexes,

and words with *hie-* should be disregarded for all other Index Numbers if G4 is assigned. *Hia-* occurs in Spanish only in a few technical words and need not be considered.

Index Numbers G5 through G11 apply to the pronunciation of /y/ and, when G2 has been assigned, to the pronunciation of /l/ as well. When G3 is assigned, G5 through G11 refer to the pronunciation of both /l/ and /y/ in those instances in which they are the same.

G5 is assigned if [ž] is sometimes or regularly heard in any position ([žamé ažér] *llamé ayer*, [laz žábes] *las llaves*, [laz žémas] *las yemas*).

G6 is assigned if [š] is sometimes or regularly heard in any position ([šamé ašér]).

G7 is assigned if [ý] is sometimes or regularly heard initial after a pause ([ýamé] = G7; [ýamé ayér] = G7 and G8; [ýamé ayér] = G7 and G9).

G8 is assigned if [ý] is sometimes or regularly heard between vowels within a word ([aýér]).

G9 is assigned if [y] is sometimes or regularly heard in any position ([yamé ayér] = G9; [laz yábes] = G9; [ýamé ayér] = G7 and G9).

G10 is assigned if [i] is sometimes or regularly heard in any position ([léma], [aíér]). Weakening of /l/ in the suffixes *-illo*, *-illa*, *-ello*, *-ella*, etc., should be disregarded, since such weakening is quite common in Spanish.

G11 is assigned if [ø] (zero) is sometimes or regularly heard in any position, especially between vowels ([aøér] or [aér]). The loss or dropping of /l/ in the suffixes *-illo*, *-illa*, *-ello*, *-ella*, etc., should be disregarded, since it is also quite common in Spanish.

Index Numbers G12 through G14 apply to the non-leveled pronunciation of /l/ and are used only when G1 or G3 has been assigned.

G12 is assigned if [l] is sometimes or regularly heard in any position ([lamé] = G12; [lamé ayér] = G9 and G12).

G13 is assigned if [ž] is sometimes or regularly heard in any position ([žamé] = G13; [žamé ayér] = G8 and G13).

G14 is assigned if [š] is sometimes or regularly heard in any position ([šamé] = G14; [šamé ayér] = G8 and G14).

The categories in Table G have been keyed to certain typical patterns of /l/ - /y/ distinction found in Latin America. When there is phonemic opposition of these two phonemes, the phonetic pairs generally found are [l] vs. [y], [l] vs. [ý], [ž] (or [š]) vs. [y], and [ž] (or [š]) vs. [ý]. That is, if the phonemic contrast is present and G1 is assigned, /y/ will not normally be [ž]. However, in cases where G3 is assigned for an informant from a transitional area, other combinations such as [l] vs. [ž] do occur.

As in Table A, diphthongs with *-y* of the type *soy*, *muy*, *ley* should be disregarded in this table. Likewise, *y* after *n* or *l* should be disregarded if different from its pronunciation intervocally, since a [ý] here is more likely determined by phonetic environment than by linguistic geography. In addition, words containing *li* of the type *familia*, *Liana* are sometimes pronounced with [l] and need not be considered. The pronunciation [ñ] is widespread among uneducated speakers in many areas and may be disregarded in this table since its presence as well does not seem to be determined by geographical factors.

In certain areas only, a preceding /s/ has been found to be a conditioning factor for the presence of [ž] (G5), thus providing useful information in the dialect identification procedure.

Explanation of symbols:³¹

- [l]: Voiced dorsopalatal lateral.
 [ž]: Voiced apicoprepalatal or dorsoprepalatal assibilated fricative, similar to but not necessarily the same as English [ž] in *lesion*.
 [š]: Voiceless apicoprepalatal or dorsoprepalatal assibilated fricative, similar to but not necessarily the same as English *sh* in *sheep*.
 [ɟ]: Voiced affricate, beginning as a palatalized apicoalveolar [d] and ending as a palatal fricative. Generally not assibilated, but *may* be similar to English *j* in *jet*, though considerably weaker. The important factor here is the presence of the affricate, not its specific phonetic nature.
 [y]: Voiced tense non-assibilated dorsopalatal fricative, similar to but with more friction than English *y* in *yes*.
 [i̯]: Voiced high-front glide, weaker than [y] and with no audible friction. Similar to English *y* in *payoff*.
 [∅]: Zero, i.e., no audible sound.

TABLE H — final /n/

The corresponding Index Number is assigned for each pronunciation heard sometimes or regularly.

Index Number	<i>pan, jabón, puesn, antes</i>	
H1	[n] heard	[habón], [pán]
H2	[ŋ] heard	[habón], [pán]
H3	[ŋm] heard	[habónm], [pánm]
H4	[m] heard	[habóm], [pám]
H5	[Ṽ] heard	[habó], [pá]
H6	intrusive final nasal heard	<i>puesn</i>
H7	[ŋ] heard before non-velar consonant within word [ántes]	

³¹ For a critical summary and discussion of the pronunciation of *ll/y* in Mexico, including several phonetic manifestations grouped together in this Table, see Lope Blanch, "Sobre el rehilamiento de *ll/y* en México".

We are using the term 'dorso-' with its generally accepted Spanish meaning of blade, front, or middle of the tongue. The terms 'alveopalatal' and 'prepalatal' are used interchangeably.

TABLE H – FINAL /n/

Table H presents a fuller picture than was possible in Table B of the phonetic manifestations of /n/ in word-final position when followed either by a pause or by an initial vowel of the following word. This /n/ is always represented orthographically by *n* in native Spanish words. Also treated here are the occurrence of an intrusive final nasal and velar [ŋ] before a non-velar consonant within a word.

Referring to Table H, the corresponding Index Number is assigned if that feature is sometimes or regularly present in the informant's speech.

H1 will be assigned if /n/ in word-final position when followed by a pause or by an initial vowel of the following word is sometimes or regularly a voiced apicoalveolar or apicodental nasal [n], as in the standard language ([pán] *pan*).

H2 will be assigned if this /n/ is sometimes or regularly a voiced velar nasal [ŋ] as in English *sing* ([pán]).

H3 will be assigned if this /n/ is sometimes or regularly a voiced coarticulated velar and bilabial nasal [ŋm]; this category will be assigned when there is difficulty in deciding whether the articulation is predominantly velar or bilabial ([pánm]).

H4 will be assigned if this /n/ is sometimes or regularly a voiced bilabial nasal [m] similar to English /m/ as in *some* ([pám]).

H5 will be assigned if this /n/ is sometimes or regularly lost and the preceding vowel is nasalized [Ṽ] ([pã]).

H6 will be assigned if an intrusive final nasal consonant is sometimes or regularly heard, especially, but not necessarily, after orthographic *s* (*adiosn*, *peusn*, *él querrán*, *yón*). This intrusive final nasal may be bilabial, alveolar, or velar, and a preceding orthographic *s* may be retained or not. Examples of the types *siéntesen*, *siéntensen*, *dígaselon* should be disregarded, since the final /n/ in these cases is a rather common plural marker.

H7: A nasal consonant in Spanish, according to Stockwell and Bowen,³² regularly assumes the point of articulation of a following stop consonant. Alveolar or dental [n] is found in standard Spanish in [ántes], [indihena], [kinse] *antes*, *indígena*, *quince*, while velar [ŋ] is the norm in [sínko], [mánko], [ánhel] *cinco*, *mango*, *ángel*. In some areas, however, a velar [ŋ] has been observed by the present author and others before non-velar and non-pharyngeal consonants ([ántes], [indihena], [kinse]). This dialectally determined phonetic feature of Spanish is included in the tables and indexes as H7.

The precise environmental distribution of word-final non-alveolar /n/ has not been adequately determined for all dialects of Spanish. Although velar [ŋ] is found in word-final position both before a pause and before a following vowel in many areas of Latin America, it may be found only before a pause in certain dialects, as indicated in several index entries. This geographically determined distinction will have to be ignored in the tables until more information is made available by field workers.

³² Stockwell and Bowen, *The Sounds of English and Spanish*, pp. 13-14.

TABLE I — /r/ and /l/

The corresponding Index Number is assigned for each pronunciation heard sometimes or regularly.

Index Number	<i>treinta y nueve, cuatro, enfermo, verde, marzo, calor, soltero, palma, alto, sol, azúcar</i>		
I1	/r/ and /l/ regularly distinguished in all positions		
I2	/r/ and /l/ NOT regularly distinguished in all positions		
I3	[tr]	heard for /r/	[tréynta]
I4	[t̃]		[t̃réynta]
I5	[r]	heard for /r/ syllable-final	[béɾde]
I6	[l]		[béɫde]
I7	[ɾ]		[béɾde]
I8	[∅]	heard for /r/ word-final	[kaló], [asúka]
I9	[∅] or complete assimilation	heard for /r/ within word	[béde], [bédde], [bédde]
I10	[d], [ɖ]	heard for /r/ syllable-final other than from complete assimilation	
I11	[h]		
I12	[y]		
I13	Nasal		
I14	Sibilant		
I15	[r]	heard for /l/ syllable-final	[sortéro]
I16	[l]		[soltéro]
I17	[ɫ]		[soltéro]
I18	[∅]	heard for /l/ word-final	[só]
I19	[∅] or complete assimilation	heard for /l/ within word	[sotéro], [sottéro]
I20	[d], [ɖ]	heard for /l/ syllable-final other than from complete assimilation	
I21	[h]		
I22	[y]		
I23	Nasal		
I24	Sibilant		

TABLE I — /r/ and /l/

Table I presents a fuller picture of the phonetic manifestations of /r/ and /l/, corresponding to orthographic *r* (except word-initial) and *l* respectively, than was possible with the

binary decisions required in Table B. All the considerations discussed in regard to the /l/-/r/ category in Table B apply here as well.

Referring to Table I, the corresponding Index Number is assigned for each pronunciation of /r/ and /l/ heard sometimes or regularly in the informant's speech.

I1 is assigned if a plus (+) was assigned to the /l/-/r/ category in Table B; that is, if /r/ and /l/ are regularly and consistently distinguished in all positions in the informant's speech.

I2 is assigned if a minus (-) was assigned to the /l/-/r/ category in Table B; that is if /r/ and /l/ are sometimes or regularly leveled in any position in the informant's speech. The decisions included in Table B are repeated in this table in order to facilitate reference to this important feature in the index.

I3 is assigned if the orthographic group *tr* is sometimes or regularly heard with the flap [ɾ], as in the standard language ([tɾéynta] *treinta*).

I4 is assigned if the orthographic group *tr* is sometimes or regularly heard with the (voiceless) fricative and/or assibilated [ç], somewhat similar to English *tr* in *train* ([tɾéynta]). Assignment of both I3 and I4 indicates lack of consistency on the part of the informant ([tɾéynta kwátro] *treinta y cuatro* = I3 and I4).

I5 is assigned if /r/ in syllable-final position within a word is sometimes or regularly a voiced or voiceless apicoalveolar sound as in the standard language ([emférmo]). That is, I5 will be assigned if the /r/ is judged to be sometimes or regularly within the limits of the general norms for standard flap /r/ in preconsonantal position and contains no element of /l/ or other non-/r/ sound. Assibilated pronunciations, similar to [ç] in /tr/ above and to the assibilated /r/'s in Table J, should not be included in this Index Number and are not considered in the tables in syllable-final position.

I6 is assigned if /r/ in syllable-final position within a word is sometimes or regularly the voiced apicoalveolar lateral [l] ([emfélmo]).

I7 is assigned if /r/ in syllable-final position within a word is sometimes or regularly a mixed articulation [ɾ] incorporating elements of both [r] and [l] and identifiable with both.

I8 is assigned if /r/ in word-final position before either a pause or any following word is [ø] (zero) ([kaló], [asúka] *calor, azúcar*).

I9 is assigned if *complete* assimilation of /r/ to the following consonant within the same word is heard ([bédde], [bédde], [emfémmo] *verde, enfermo*), or the /r/ is completely omitted ([ø]) ([béde], [béde], [emfémo]).

I10 is assigned if /r/ in syllable-final position within a word is sometimes or regularly [d] or fricative [ð], except when such a [d] or [ð] is the result of *complete* assimilation ([emfédmo], [bédde] = I10, [bédde] = I9).

I11 is assigned if /r/ in syllable-final position within a word is sometimes or regularly non-nasalized [h] ([béhde], [káhne] *verde, carne*). Nasalized [ɲ], as well as the voiceless nasal consonants [ɱ] and [ɳ], produced with complete closure at the oral cavity during which air is blown out through the nose, will be assigned Index Number I13, below.

I12 is assigned if /r/ in syllable-final position within a word is sometimes or regularly vocalized to [ɪ] (or [y]) ([béɪde], [béyde]).

I13 is assigned if /r/ in syllable-final position within a word is sometimes or regularly any voiced or voiceless nasal consonant including [ɲ, ɱ, ɳ] described above, except when

such a nasal represents *complete* assimilation to the following consonant ([káhne], [káne] = I13, [káne] = I9, [káhne] = I11).

I14 is assigned if /r/ in syllable-final position within a word is sometimes or regularly a voiced or voiceless sibilant, except when such a sibilant is the result of *complete* assimilation to the following consonant ([bézde] *verde* = I14, [máso] *marzo* = I9).

The remainder of Table I deals with the pronunciation of /l/ in final position, and parallels exactly the final-/r/ section of this table in Index Numbers, allophones, and specification of environments.

I15 is assigned, as was I5 for /r/, if /l/ in syllable-final position within a word is sometimes or regularly [r] ([sortéro] *soltero*).

In the same manner:

I16 is assigned if /l/ in syllable-final position within a word is sometimes or regularly [l], as in the standard language ([soltéro]).

I17 is assigned if /l/ in syllable-final position within a word is sometimes or regularly mixed [t] ([sohtéro]).

I18 is assigned if /l/ in word-final position before either a pause or any following word is [ø] (zero) ([só] *sol*).

I19 is assigned if *complete* assimilation of /l/ to the following consonant within the same word is heard ([sottéro]), or the /l/ is completely omitted ([ø]) ([sotéro]).

I20 is assigned if /l/ in syllable-final position within a word is sometimes or regularly [d] or [ð], except when the [d] or [ð] is the result of complete assimilation ([paðméra] *palmera* = I20, [báðde] *balde* = I19).

I21 is assigned if /l/ in syllable-final position within a word is sometimes or regularly non-nasalized [h] ([sohtéro] *soltero*). Occurrences of [h, m, n] are assigned Index Number I23, below.

I22 is assigned if /l/ in syllable-final position within a word is sometimes or regularly vocalized to [ɨ] (or [y]) ([soɨtéro], [soytéro]).

I23 is assigned if /l/ in syllable-final position within a word is sometimes or regularly a voiced or voiceless nasal consonant including [h, m, n], except when such a nasal represents *complete* assimilation to the following consonant ([pámma] *palma* = I23, [pámma] = I19, [páhma] = I21).

I24 is assigned if /l/ in syllable-final position within a word is sometimes or regularly a voiced or voiceless sibilant, except when such a sibilant is the result of *complete* assimilation to the following consonant ([pazméra] = I24, [ássa] *alza* = I19).

The attempt to specify the types of phonetic manifestations of /l/ and /r/ in all the dialectally significant environments in which these two phonemes occur has presented many unsurmountable difficulties in the present study. As in the case of vowels discussed at the beginning of this chapter, the number of possible allophones multiplied by the number of phonetic environments in which /l/ and /r/ occur in Spanish create what has thus far been an unmanageable picture. Complete comparative, descriptive, and statistical studies showing precisely the environmental distribution of the phonetic variants of these phonemes are lacking.³³

³³ Some important works on the pronunciation of /l/ and /r/ are Alonso and Lida, "Geografía fonética"; Navarro Tomás, *Manual de pronunciación española*, pp. 113-121; Matluck, *La pronuncia-*

The intent of Table I is to permit examination of /l/ and /r/ in a limited environment, focusing specifically on several of the most widely reported allophones. No attempt is made here to distinguish the effects produced by the various consonants that may follow /l/ and /r/ within a word, though this is precisely the type of specification that must be made if the entire phonetic picture of these two phonemes is to be clarified. Descriptive studies of Latin American dialects vary greatly in their degree of specification and their apparent accuracy in this area.

The categories of assimilation in Table I, Numbers I9 and I19, can be of special interest, since these allow the study of the possible presence of geminate consonants in Spanish. These categories also permit more careful examination of the reports of many varied pronunciations of /l/ and /r/ in Spanish; it is this author's belief that many of these pronunciations could more easily be reported and explained in terms of partial and complete assimilation of these phonemes to a following consonant.

Except in the case of I8 and I18, word-final zero, no attempt has been made here to specify implosive /l/ and /r/ environments other than syllable-final within a word. This omission was necessitated by the low degree of accuracy and detail of specification of phonetic environments in many published reports. The term *final de sílaba* is often used to include word-final as well, with no means provided for distinguishing the two, or for distinguishing between word-final before a pause, a following consonant, or a following vowel. Erroneous conclusions can be drawn from a report that [r̥], for example, is found *final de palabra* in a given area, since the reader would have no way of knowing whether [no kyéro komér] *No quiero comer*, [no kyéro komér pan] *No quiero comer pan*, and [no kyéro komér akí] *No quiero comer aquí*, etc., were all intended or observed by the reporter. Such a limited though common degree of specification, while it may have been sufficient for the original investigator's purposes, does not permit accurate or meaningful comparison of the data on a higher level.

A complete comparative study of the phonetic manifestations of /l/ and /r/, beginning at the field-work level and using modern data-processing techniques, is necessary to determine which are the significant phonetic environments that cause variations in /l/ and /r/ in a given dialect and in the general Spanish /l/-/r/ pattern.

ción en el español del Valle de México, pp. 2, 85-98; Robe, *The Spanish of Rural Panama*, pp. 48-54. Published too late for consideration in the categories of Tables I and J are the excellent works of Lope Blanch and of Alvar, including "La -r final del español mexicano y el sustrato nahua", and "Polimorfismo y otros aspectos fonéticos en el habla de Santo Tomás Ajusco, México".

Table I is considerably better suited in its present form to the study of those dialects assigned I2 (leveling) than of those assigned I1.

TABLE J - /r/

The corresponding Index Number is assigned for each type of /r/ heard sometimes or regularly.

Index Number	<i>cachorro, perro, carro</i>	
J1	[r̄]	[kačóro]
J2	[r̄̃]	[kačóro]
J3	[r̄̃]	[kačóro]
J4	[r̄]	[kačóro]
J5	[R]	[kačóRo]
J6	[hr]	[hr̄], [hr̃], [x̄r̄], [gr̄], [r̄], etc. [kačóhro]
J7	/r/ = /r/	[kačóro]

TABLE J - /r̄/

Referring to Table J, the corresponding Index Number is assigned for each variety of /r̄/ heard in the informant's speech. That is, if the informant vacillated between [r̄] and [r̄̃] he would come under both Index Numbers J1 and J4. A region found in the index under both these numbers would, then, be more probably the informant's place of origin than would a region appearing under only one or under neither of these numbers.

Examples:

		Index Number
[el péro]	<i>el perro</i>	J4
[la r̄áta kóre]	<i>la rata corre</i>	J1; J4

When possible, only intervocalic /r̄/ as defined on page 13 should be considered here. Initial /r̄/ will generally, though not always, be the same as intervocalic /r̄/.

Explanation of symbols:

(J1) [r̄]: Voiced apicoalveolar multiple trill.

(J2) [r̄̃]: Voiced lenis alveolar or prepalatal fricative; may be assibilated or *rehilante*.³⁴ When not assibilated or *rehilante*, it is very similar to the normal American-English retroflex *r*. When assibilated, it is simply a weak [r̄].

(J3) [r̄̃]: Voiceless alveolar or prepalatal assibilated or *rehilante* fricative, similar to, but not the same as, English [ʃ] in *shut*. Often very similar to the Castilian heavily grooved apicoalveolar [ʃ] in *sótano*.

³⁴ See footnote 36.