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Quechua dialects and their classification

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University of California, Los Angeles, 1991

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Los Angeles

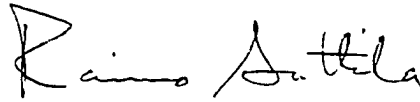Quechua Dialects and Their Classification

A dissertation submitted in partial satisfaction of the

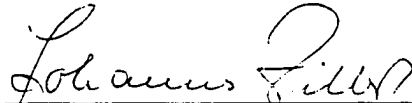requirements for the degree Doctor of Philosophy

in Linguistics
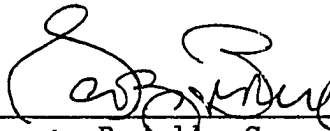
by

Peter Nelson Landerman

1991

The dissertation of Peter Nelson Landerman is approved.

Raimo Anttila

Johannes Wilbert

George Bedell, Committee Chair

University of California, Los Angeles

1991

ii

To the Memory

of

Helen Thomsen

and

H. Lee Landerman,

who, beyond the obvious, gave me much more than they ever knew.

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LIST OF MAPS

LIST OF ABBREVIATIONS

1	First person singular
11	First person plural exclusive
12	First person plural inclusive
2	Second person singular
22	Second person plural
2ful	PLural including 2nd person
2les	PLural not including 2nd person
3	Third person singular
33	Third person plural
ABL	Ablative
ACC	Accusative
AG	Agentive
CAUS	Causative
DIM	Diminutive
DIR	Directional
DUR	Durative
FUT	Future
GEN	Genitive
INF	Infinitive
LIM	Limitative
LOC	Locative
NOM	Nominalizer
OB	Object
PERF	Perfect
PL	Plural
PLUP	Pluperfect
POS	Possessive
POSR	Possessor
POT	Potential
PPT	Past participle
PST	Past
PURP	Purposive
REFL	Reflexive
REL	Relative
SIM	Simulative
SR=	Switch-reference same-subject
SR≠	Switch-reference different-subject
SU	Subject

October 15, 1940	Born, El Centro, California
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PUBLICATIONS AND PRESENTATIONS

1973 Vocabulario quechua del Pastaza. Yarinacocha (Peru)

1978 "The Proto-Quechua First Person Marker and the Classification of Quechua Dialects" Paper presented at the 2nd Workshop in Andean Linguistics: University of Illinois, Champaign-Urbana.

1979 "Sixteenth Century Sibilants in Spanish, Quechua, and Aymara: a Three-sided Puzzle." Paper presented at the Symposium on Andean Linguistics of the 43rd International Congress of Americanists, Vancouver. [Published as "Las sibilantes castellanas, quechuas y aimaras en el siglo XVI: un enigma tridimensional." in Cerrón (comp.), 1982, with very serious typographical errors.]

1980 "Two Sound Changes in Highland Ecuadorean Quichua." Paper presented at the 4th Andean Linguistic Workshop, Aug. 4-5, Albuquerque, NM.

1981 "Clitics in Quechua and Tupi-Guarani," Paper presented at the 5th International Workshop in Andean Linguistics, July 29-30, Cornell Univ.

1982 "Las sibilantes castellanas, quechuas y aimaras en el siglo XVI: un enigma tridimensional." in Cerrón (comp.), 1982. [A translation of Landerman (1979) not previewed by the author and containing very serious typographical errors.]

LANDERMAN, Peter, Don Frantz, and Bruce Hollenbach

1973 Notes on Grammatical Theory. Yarinacocha (Peru).

WEBER, David and Peter Landerman

1985 "On the Interpretation of Long Vowels in Quechua" IJAL, 51: 1, pp. 94-108.

ABSTRACT OF THE DISSERTATION

Quechua Dialects and Their Classification

by

Peter Nelson Landerman

Doctor of Philosophy in Linguistics

University of California, Los Angeles, 1991

Professor George Bedell, Chair

Speech varieties called Quechua, Inca, Runa Simi, or variants of these are spoken over a large area of South America, from southern Colombia to northern Argentina. Though traditionally called "dialects of Quechua," they really form a family of closely related languages and their dialects.

Quechua-speaking areas are surveyed by country and region, and are delineated on maps. On a typological as well as geographical basis they are divided into four major groups: Northern, North Peruvian, Central, and Southern. A general sketch is given of the typical linguistic features of Quechua as a whole and of each of the four areas, as well as their internal dialect diversity.

Former classifications from the colonial period to the present are reviewed with special attention paid to those proposed since 1963, based on linguistic criteria. The results are expressed in Family Trees.

The theoretical issues involved in different types of classification are reviewed and the former proposals evaluated in this light. Finally these principles are applied to the problems of classification presented

by this language family. The Central dialects are seen as highly innovative compared to the others. It is concluded that the bipartite division opposing these dialects to the other three groups, which almost all investigators have proposed to date, does not have a solid methodological basis, and that the first person markers may not be as important a criterion for Quechua classification as has generally been assumed.

1. QUECHUA DIALECTS: LOCATION, DESCRIPTION, AND DIVERSITY

1.1 LOCATION

The various forms of speech that have been traditionally referred to as Quechua, Quichua, Runa Simi, and Inca (or local variants of these terms) are spoken in communities scattered over a large area of western South America, centering on, but not restricted to, the Andean chain.[1] These communities range all the way from Colombia in the north to Argentina in the south; more precisely, from approximately 1 degree

---

[1] In the present work, these various speech forms will be referred to as "Quechua" and the local varieties as "Quechua dialects." It is acknowledged from the outset that this traditional terminology is potentially misleading, and is undoubtedly based on a more or less false concept of the linguistic origins and interrelations of these varieties. I will deal below with the question of the extent to which it might be proper to refer to these as dialects of a single language. The traditional terminology is followed here merely as a convention, despite the possibility of confusion, in order to avoid the sticky problem of trying to define the difference between closely related separate languages and dialects of the same language. To date no truly satisfactory definition of language versus dialect has been given, as will be noted later.

The phonetic symbols employed are those generally associated with the Americanist tradition. In addition the following symbols, which are common in the literature dealing with Quechua, are used, at times as phonetic symbols:
¢ alveolar affricate [ts].
ĉ retroflex alveopalatal affricate [tš].
ŝ retroflex alveopalatal sibilant [š].

Descriptive claims and data cited without naming a source are based on my own field work on Ayacucho Quechua (1965-1966), Cochabamba Quechua (1967-1969), a wide variety of dialects in Peru, Bolivia, and Ecuador (1970-1977), and since then to the present with native speakers in Peru and the U. S.

North latitude to 30 degrees South. The following map shows this distribution.

COLOMBIA

ECUADOR

BRAZIL

P E R U

BOLIVIA

☐ Quechua

■ Aymara

QUECHUA
in
South America

CHILE

ARGENTINA

100 Km

—0°

—5°

—10°

—15°

—20°

—25°

Map 1

3

More specifically, Quechua is spoken in the following areas (by country):

1.1.1. COLOMBIA

Levinsohn (1976b), one of the principal sources on Quechua in Colombia, reports that the language is usually referred to as Inga, and that communities where it is spoken are found in the following localities:

1) In the Department of Putumayo in the Sibundoy Valley, specifically in the towns of Santiago and San Andrés. ᐧThese two dialects are the specific focus of Levinsohn (1976b).

2) In the same Department in a series of communities along the Putumayo, Mandur and Caquetá rivers.

3) Lastly, in the Department of Nariño around the town of Aponte.

The following map (adapted from Levinsohn (1976b, p. 6) shows this distribution:

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INGA in COLOMBIA
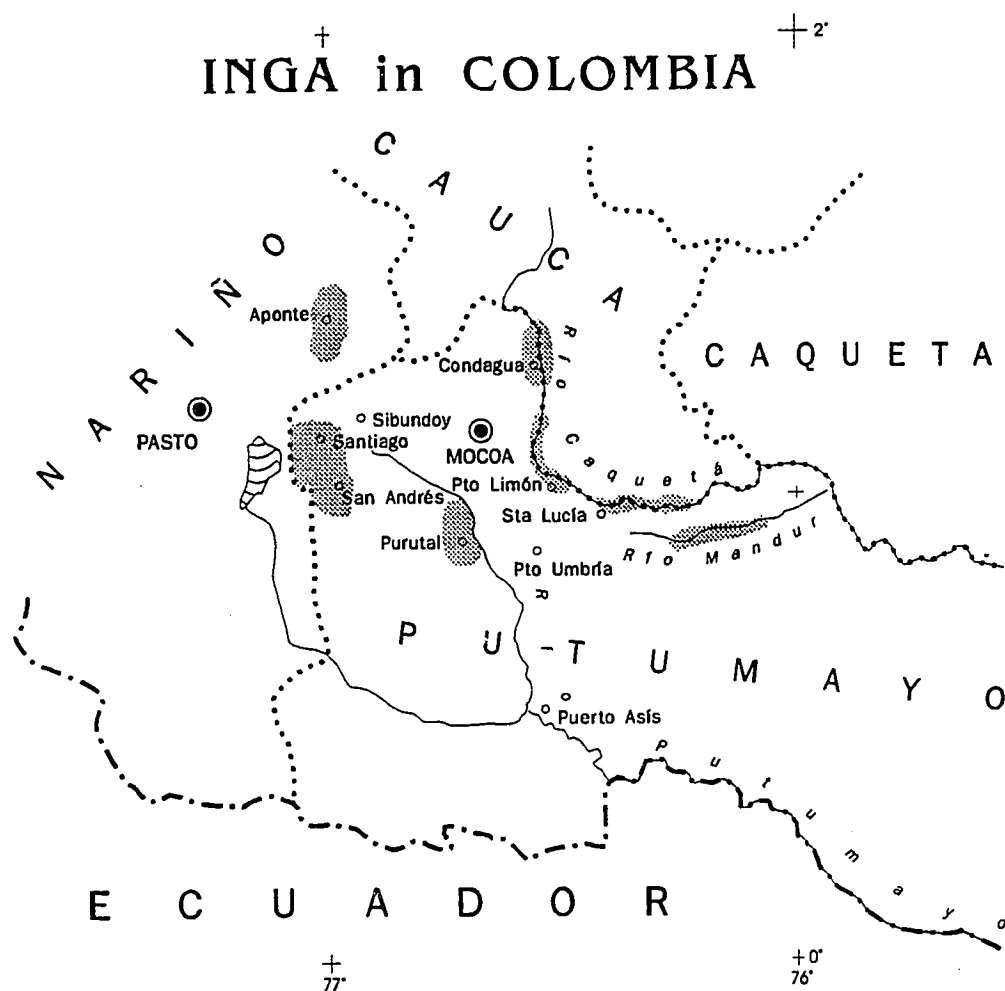
Map 2

1.1.2. ECUADOR

"Quichua" is the most common local term for the language in
Ecuador. It is spoken in the highlands in numerous communities (many
of which do not appear on the national maps) in the Provinces of
Imbabura, Pichincha, Cotopaxi, Tungurahua, Chimborazo, Bolívar, Cañar,

Azuay, and the Saraguro area of the Province of Loja.[2]   In the eastern
lowlands or jungle areas it is spoken in a number of settlements along
the Napo, Pastaza, and Bobonaza rivers and their tributaries. The
following map locates the Provinces in question for purposes of
reference.

---

[2]The hierarchy of political divisions in Ecuador (from greatest to
smallest) is: Province, Canton, Parish (Cabecera Parroquial).

Provinces
of
ECUADOR
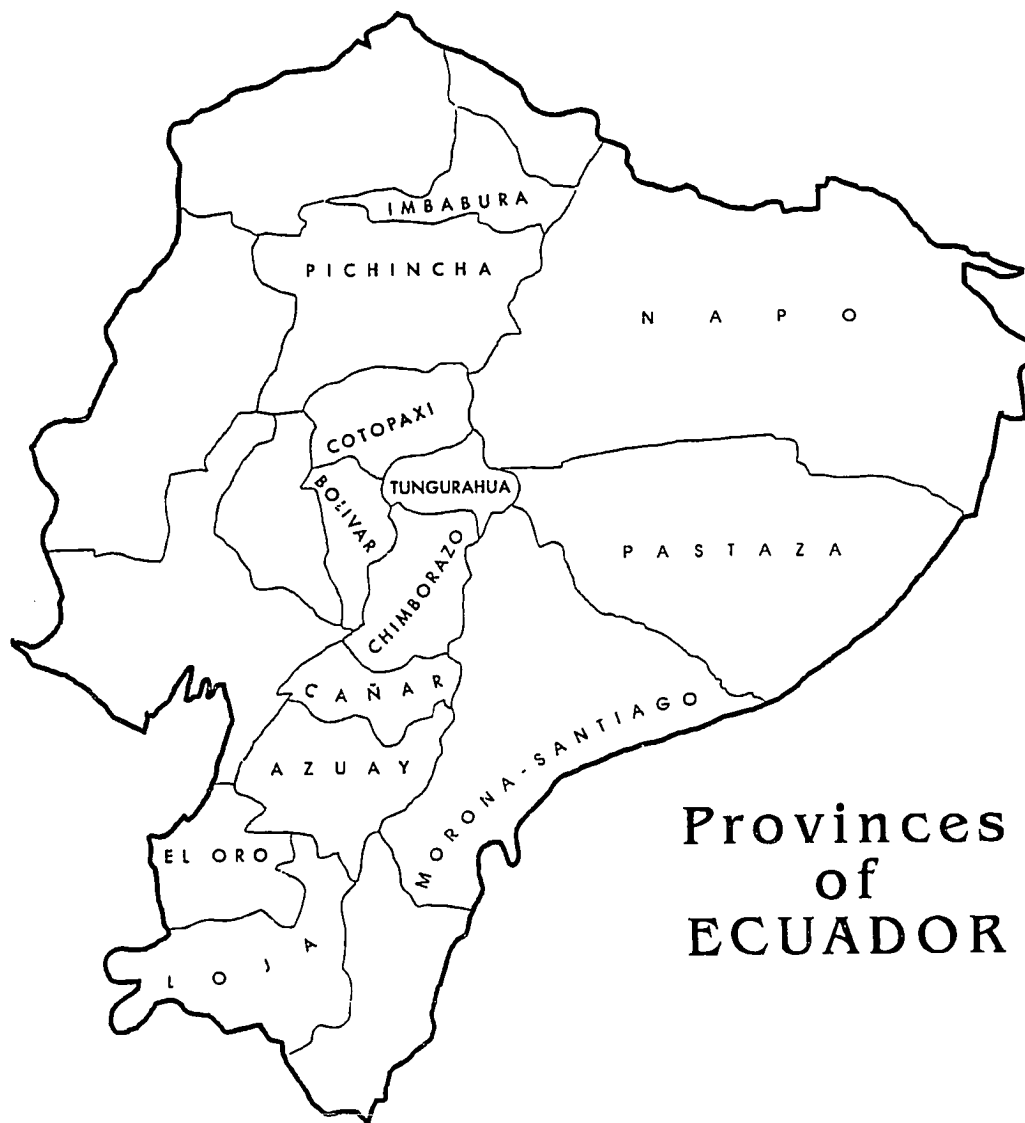
Map 3

Information on where Quichua is spoken in Ecuador was compiled

from a number of sources: Burns 1973, Stark 1973, 1985b, Coombs 1976,

Muysken 1977, the *Mapa Etnico del Ecuador* (Instituto Lingüístico de

Verano, 1977), *Mapa de Grupos Indígenas* (Instituto Ecuatoriano de Antropología y Geografía, 1961), Carpenter 1982, Beukama 1975. Only the two "Mapas" attempt to display the Quichua-speaking areas with any real geographic precision. The other sources contain maps of only a very general nature.

I have not actually seen the *Mapa de Grupos Indígenas*, only tracings of parts of it included in Burns (1973). These showed only Province boundaries and what appear to be the outlines of Cantones considered to be Quichua-speaking. Though very few of the latter are labeled, it is possible to make a good guess at the identity of most by adjusting them for scale and overlaying the result on a national map. The source of the data on this *Mapa* is not specified, nor was it known to Burns (personal communication).

The *Mapa Etnico del Ecuador* includes no provincial boundaries and the names of very few communities. However, enough geographic information is included so that when adjustments for scale are made and its areas are projected onto a national map, one may obtain a fairly precise idea of what areas are intended to be included in the Quichua-speaking areas. Several comments are in order regarding these.

(1) An area between the Aguarico and the Putumayo rivers bordering with Colombia is assigned to the Napo dialect.

(2) No Quichua is shown to the south of Cuenca in the Province of Azuay, although Stark (1985b, p. 471) explicitly mentions Quichua-

3

speaking areas around Tarqui and Nabón, and the *Mapa de Grupos Indígenas* includes a number of communities in that area.

(3) The northwestern Azuay area around Pelileo is clearly meant to be included, though Stark makes no mention of it.

(4) The area around Zaruma in the Province of El Oro is explicitly included, though it is not mentioned in any other source.

This map states that it is based on one by Edwin Ferdon, 1947, which I have not seen. Thus the source of the data and the basis for inclusion of territories in the Quichua-speaking area is not known, especially for the Highlands. Presumably the Jungle areas covered by this map are based, at least in part, on information from ILV workers who have first-hand knowledge of the area.

Carpenter 1982 includes a map ("Distributions of Quichua Dialects" p. 21) of fourteen dialect areas. When projected onto a national map it does not appear to be geographically very precise. For example, the "Bolívar" dialect is shown as being to the south of, and even extending to the east of, the "Platillos"[3] of Tunguragua Province, as well as being directly north of "Chimborazo". This is completely outside of the area of the Province of Bolívar, which touches Tunguragua and Chimborazo Provinces only on their westernmost borders. Carpenter's map also excludes the Azuay areas south and east of Cuenca mentioned above, and in general coincides rather poorly with

[3]This is the local term for this particular ethnic group, which is based on the form of hat which the men wear.

the Quichua areas displayed on his map entitled "Distributions of Indigenous Languages" (p. 51). The latter obviously is based on ILV 1977, though this source is not cited.

Unfortunately, the maps included in Muysken (1977) and Stark (1985b) are geographically only very general. It is lamentable that they and Carpenter did not prepare more accurate maps, since their extensive field work and knowledge of the area certainly qualified them to do so.

The map which follows attempts to be as accurate as possible in summarizing the information from the above sources. Obviously some judgement calls were necessary. No attempt is made to accurately delimit the boundaries of the Highland Quichua communities or dialects or to portray all their discontinuities and Spanish areas that separate them. The area south of Quito in Pichincha Province is included based on ILV (1977) and the *Mapa de Grupos Indígenas*, though Carpenter excludes it, and Stark reports that Quichua has largely disappeared there over the last two generations. My guess, based on my own field experience around Quito in 1977, is that older speakers can still be found, and that these dialects are not yet totally extinct.

The Azuay area around Pelileo is included based on ILV (1977) and the *Mapa de Grupos Indígenas*, though this may be incorrect. The Zaruma area of El Oro Province is excluded, since it only appears on ILV (1977).

Quichua-Speaking
Areas of Ecuador

Map 4
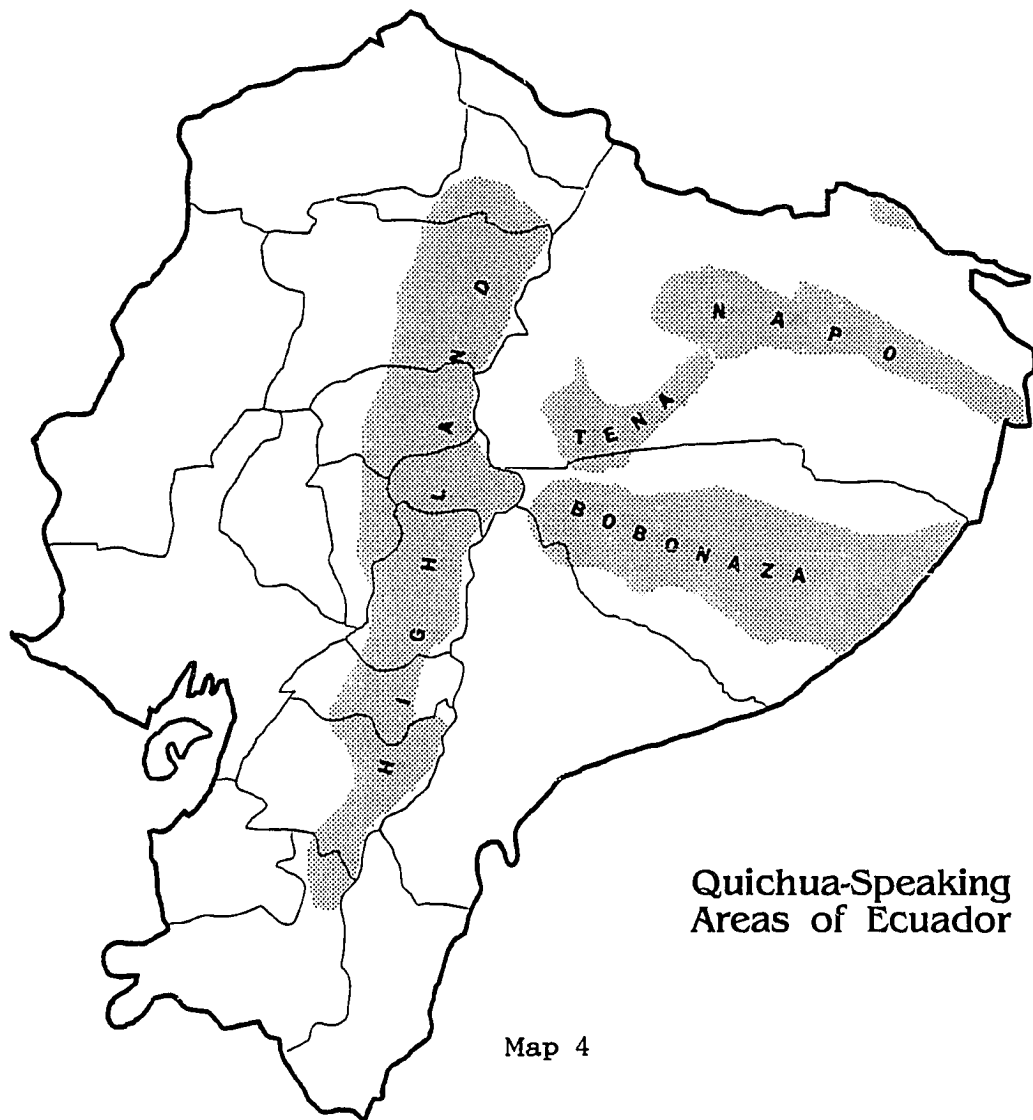
3. PERU

In Peru, more than any other country, one finds by far the
greatest geographic spread as well as the greatest diversity of dialects
of Quechua. The following map shows the boundaries of the
Departments which will be referred to in what follows.[4]

---

[4]The hierarchy of political divisions in Peru is Department, Province,
District.

ECUADOR

COLOMBIA

Loreto

Amazonas

Lambayeque

Cajamarca

San Martin

BRAZIL

Ancash

Huánuco

Pasco

Ucayali

Junín

Lima

Huancavelica

Cuzco

Ica

Ayacucho

Apurímac

BOLIVIA

Puno

Departments
of
PERU

Arequipa

Moquegua

Tacna

Map 5

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1.1.3.1. LOWLAND JUNGLE

Communities of speakers of Quechua are to be found in the northeastern lowlands in settlements distributed along the Napo, Tigre, Corrientes, Pastaza, and Marañón rivers, in the Department of Loreto. Many of these communities are in a constant state of flux and their populations unstable, so it is difficult to keep track of their current status. The vagaries of nature, the rapidly diminishing fertility of the delicate Amazonian-Basin soil, quick depletion of game, etc., make long term settlement impractical or impossible. The rivers themselves, which on the one hand make the highly mobile "ribereño" life style possible, also make it unavoidable by their constant flooding and changing of course. Thus a sizable community of hundreds of people may come into existence virtually overnight and for a time flourish, becoming a principal landmark and population center for a large area, only to disappear without a trace within a few years.[5] It is notorious that towns marked on recent national maps may no longer exist or may have been moved to another location. Even communities that have existed for a long time on the same site have often seen wide fluctuations in size of population over the years. This same is probably true, to a greater or lesser degree, of communities in parts of the jungle areas of Colombia, Ecuador (mentioned above), Bolivia, and Brazil (mentioned below).

---

[5]For example, Tigre Playa, an important community on the Marañón River throughout the 70's, no longer exists due to erosion and a huge cave-in of the river bank where it was located.

The result is that eyewitness reports on the distribution of the Quechua-speaking population may differ radically from one decade from to another. In areas such as these, the use of the Quechua language has naturally tended to spread far beyond its boundaries at the time of the Spanish conquest.

1.1.3.2 HIGHLANDS

In the Andean highlands and lower slopes, natural conditions are much more stable, and travel by river is virtually impossible. Here Quechua-speaking communities are more permanent in location, often continuing to occupy sites predating the conquest. Such communitites are found in the Departments of Lambayeque, Cajamarca , Amazonas, San Martín,[6] Ancash, Huánuco, Pasco, Junín, Lima, Ica (in the northeast tip of the Province of Chincha) Huancavelica, Ayacucho, Apurimac, Cuzco, Puno, Arequipa, and Moquegua. Here the language is often called in Quechua "Runa Simi," ('Human Speech,' 'Native Speech') or local variants thereof.

1.1.3.2.1. LAMBAYEQUE

In the Department of Lambayeque, whose territory consists for the most part of Pacific coastal desert where the Yunga language was formerly spoken, Quechua speaking communities are found in the small

---

[6]Strictly speaking, the Quechua-speaking communities of this department are located in the Andean foothills and the nearby lowland areas. I include this dialect area here because these communities tend to be much more stable than those described in the previous section.

northeastern corner of the Department which stretches up into the Andes, mainly in the districts of Incahuasi and Cañaris in the Province of Ferreñafe. Quechua is not restricted to this Province, however, since Penachí, located to the west in the Province of Lambayeque, is reported to be a long-term Quechua-speaking community. Therefore I shall use the term "Lambayeque Quechua" for this variety even though "Ferreñafe" is the usual designation in the literature ever since it was first reported in Torero (1968). The following map shows the location of these towns in the Department.
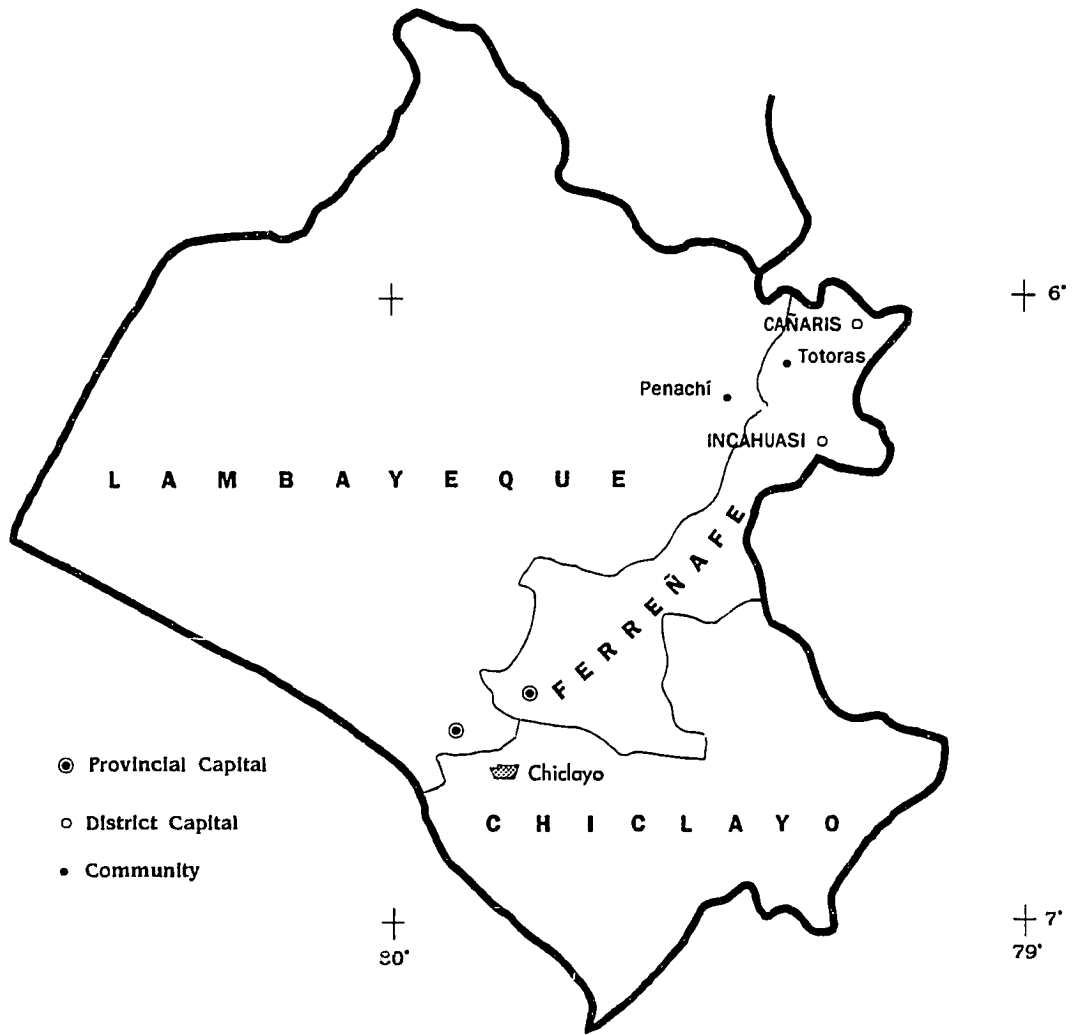
Department of Lambayeque

Map 6

Escribens (1977: 5) contains a map of this area on which he includes Colaya and another town "Cong..." (illegible) of Lambayeque Province in the Quechua-speaking area. These are not found on the

1983 Instituto Geográifco Nacional map of the Department of Lambayeque, so they were not included on Map 6 above.

Escribens also reports having "confirmed the existence of Quechua in the nearby towns of Peyona, Pomahuaca, Colasay, and Pucará in the Department of Cajamarca, which appear on his map included in the Quechua area. However he describes what he has outlined on the map as the "approximate area of dispersion" of the dialect. When I visited these four communities in 1974, it was clear that they were not Quechua-speaking. The speakers there were all rather recent migrants from the Cañaris highlands.

1.1.3.2.2. CAJAMARCA

In the Department of Cajamarca, Quechua communities are restricted largely to the Province of Cajamarca, but some speakers remain in the Province of Hualgayoc in the vicinity of Bambamarca (see the following map). Hugo Pesce's *Mapa Lingüístico del Perú*, prepared in the 1960's, shows an east-west strip of Quechua territory in the northern part of the Department. As mentioned above, a field trip to this area in 1974 determined that this represents recent migration from the highlands of Ferreñafe Province (Lambayeque) down to towns along the main road going east to Jaen and Chachapoyas. The following map shows the distribution of the long-term Quechua-speaking communities in the Department.

17

Department of CAJAMARCA

o Chala
Bambamarca◉
HUALGAYOC

o Porcón

CAJAMARCA
o   ◔   o Baños del Inca
Chetilla   o Ilcccnora

◉   Provincial Capital

o   Community where Quechua is Spoken

Map 7

1.1.3.2.3.   AMAZONAS

In the Department of Amazonas, local dialects of Quechua are found in the southern provinces of Luya and Chachapoyas, and perhaps until recently in Bongara Province near the capital of Jumbilla. Taylor, who did extensive field work in the area beginning in 1968, reports

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(1979a: 5) the following as Quechua communities: Olleros, Quinjalca, Yambajalca-Diosán, Goncha, Huancas, Levanto, and La Jalca of the Province of Chachapoyas, and Colcamar, Lonya Chico, Conila-Cohechán, Luya Viejo, Trita, Cuémal, Olto, and Paclas of the Province of Luya. Dialect survey work by David and Heidi Coombs, who visited a number of these towns in 1974, largely corroborates Taylor's information. The following map shows the location of these communities. Yambajalca-Diosán is now called Granada and is so indicated. Cuémal, Goncha, and Trita are left out, since they do not appear on the Instituto Geográfico Nacional departmental map of Amazonas (1986).
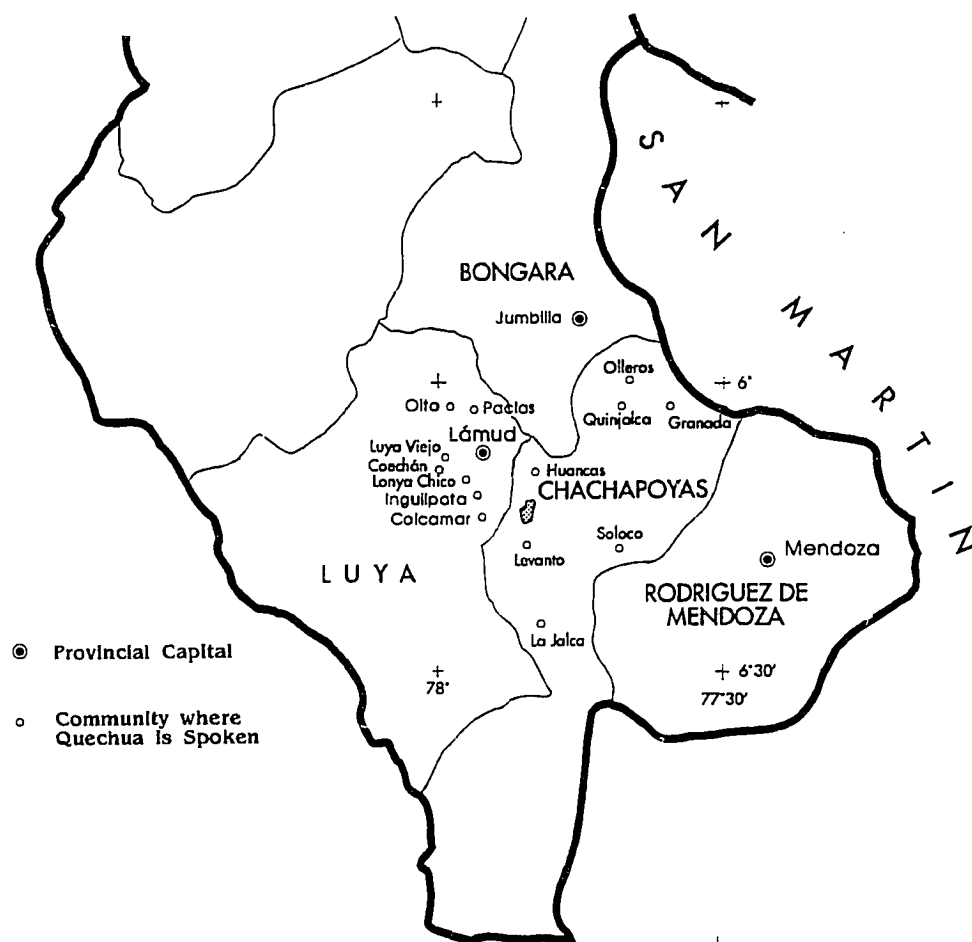
Department of AMAZONAS

Map 8

The language may be extinct by now in the districts of Soloco and Levanto. Taylor reported only two or three old ladies who remembered it in 1975 in the latter district. I include Soloco here, having met a man from there in 1970 who remembered some expressions from his

grandmother. In 1974 Coombs made a short recording of a lady, then 89 years old who was from Jumbilla and still remembered Quechua.

1.1.3.2.4. SAN MARTIN

In the Department of San Martín, Quechua is spoken in the Provinces of Lamas, Huallaga, and San Martín, along the Huallaga River and its tributaries, the Mayo and the Sisa.

In the past century large numbers of speakers from the San Martín area moved eastward to the Ucayali river system in what is now the Department of Ucayali, thus giving rise to the "Ucayali" dialect described by Navarro (1903). Mauricio Gnerre has even reported (personal communication in 1978) that some Quechua speakers established communities on the Chandless river near the Alto Purus in what is now the Acre Territory of Brazil, where he made some recordings of the language in the seventies.[7] Along the Ucayali itself older speakers can still be found in a number of communities including Contamana and Pucallpa, but the last two generations have abandoned the language, and it is no longer used to any extent.

Hans Rudolf, a Swedish missionary who has long lived in the area, reports (personal communication) that older speakers of this dialect are

---

[7]I have not heard these, so I cannot say if the dialect found there is basically that of San Martín or perhaps one belonging to the Ecuadorian Jungle group, whose speakers were presumably taken there during the rubber boom at the beginning of this century.

still found today in many communities along the Marañón river and presumably along the lower Huallaga river in the Department of Loreto.

The following map, showing Quechua-speaking communities in the Department, does not include the expansion just mentioned, and is based mostly on information supplied by Víctor Cenepa, a native speaker who is familiar with most of the area.

Department
of
SAN MARTIN

L   A   M   A   S

Tabalosos o

Lamas ◎

Tarapoto ◎

Chazuta o

o Sisa

SAN   MARTIN

H U A L L A G A

Saposoa ◎

Bellavista

+ 7°
76°

B E L L A V I S T A

R i o

H u a l l a g a
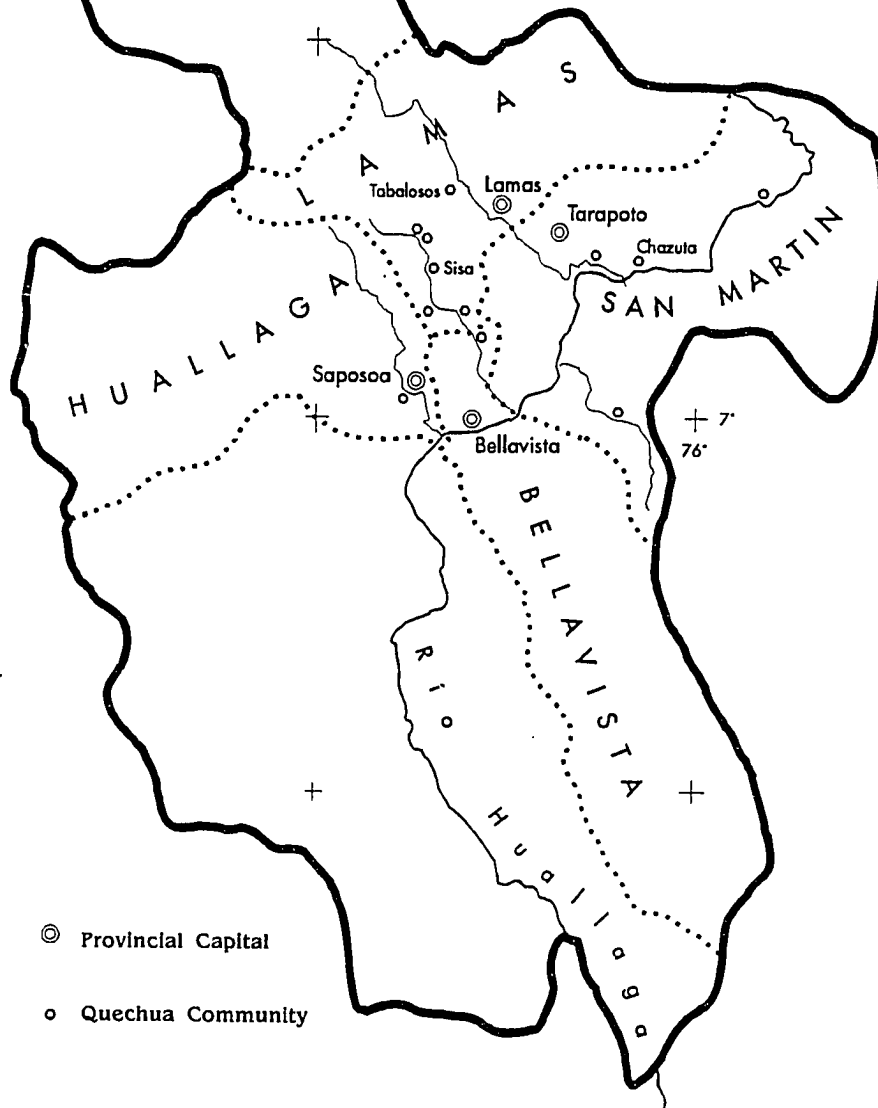
◎   Provincial Capital

o   Quechua Community

Map 9

1.1.3.2.5. THE CONTINUOUS AREA

Quechua continues to be spoken in major portions of the Departments of Ancash, Huánuco, Pasco, Junín, Huancavelica, Ayacucho, Apurímac, Cuzco, Puno, and Moquegua, throughout a more or less continuous strip covering the width of the Andean chain and interrupted by Aymara to the south. The dialects of this "continuous area" form two very divergent groups which will be described later. In Ancash, Quechua is not found in the Province of Pallasca, which once formed part of the territory of the Culli language. In Arequipa, Quechua is found only in the Provinces of La Unión, Condesuyos, Castilla, Caylloma, and Arequipa.

1.1.3.2.6. LIMA

In the Department of Lima, Quechua continues to be spoken in communities located in the highlands of the Provinces of Cajatambo, Chancay, and Huaral in the north, and in the Province of Yauyos in the south. These dialects strictly speaking form part of the Continuous Area, but are special in the type of diversity which is observed. It is the greatest, over short distances, to be found anywhere in the whole Quechua area. In most areas of this department each district has a different dialect, and sometimes several are found in a single district.

The Province of Huaral (formerly part of the Province of Canta) was formerly home to several nearly extinct dialects which are quite distinctive and crucial for the reconstruction of certain aspects of

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Proto-Quechua. When I last visited the district of Pacaraos in 1988, there remained only two or three old women who remembered the local dialect. Only one of the four speakers who worked with Adelaar during his 1979 stay in the community was still living. See Adelaar (1986). As far as I have been able to ascertain, after considerable investigation in the area, the dialect of Santa Cruz de Andamarca has had, for at least the last fifteen years, only one living speaker.

The following map shows communities having local dialects in the Department of Lima.

Quechua-Speaking
Provinces
of   the
Department
of
LIMA

CAJATAMBO

OYON

+CHANCAY

HUARAL

YAUYOS

— 11°

— 12°

— 13°

77°

76°

o Quechua-Speaking District

Map 10

26

1.1.3.2.7. Yauyos

The Province of Yauyos (Lima)[8] was larger during the colonial period, and included parts of what are now the Provinces of Chincha (Ica) and Castrovirreyna (Huancavelica). Two distinct areas, northern and southern, can be distinguished. These are separated by territory where the Kawki or Jaqaru language is or was formerly spoken.[9] On the following map, only those districts whose names are indicated are Quechua-speaking. For purposes of reference, the Jaqaru-speaking communities of Tupe, Ayza, and Cachuy have been included.

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[8]When referring to particular provinces, I shall often include in parentheses the name of the department they belong to, for purposes of orientation.

[9]Hardman has used the terms "Kawki" and "Jaqaru" to designate what she insists are two separate, closely-related languages, the former in Cachuy, the latter in Tupe, Ayza, and Colca. Since her works are to date the main published sources on the language, this misleading terminology has become commonplace in the linguistic literature. In fact "Cauqui" is the common Spanish name for the language and has been apparently for centuries. "Jaqaru" (an exact analog of the Quechua "Runa Simi," 'human speech') is the self designation used in the language itself. The dialect of the community of Cachuy (nearly extinct), which Hardman calls "Kawki," is, by any criterion, quite close to that of the towns of Tupe, Ayza and Colca (which Hardman calls "Jaqaru").

76°

75°30'
+ 12°

. Vilca

HUANCAYA
VITIS ○ ○ TOMAS
○ ALIS

LARAOS

YAUYOS ◎

+

C a ñ e t e

R i o

• Cachúy TUPE

Ayza •

HONGOS
CACRA ○ ○   LINCHA

R i o   C a ñ e t e

• Apurí

○ DISTRICT   HUANGASCAR

CHOCOS ○   ○ VIÑAC

• Community   MADEAN

AZANGARO
○

+ 13°
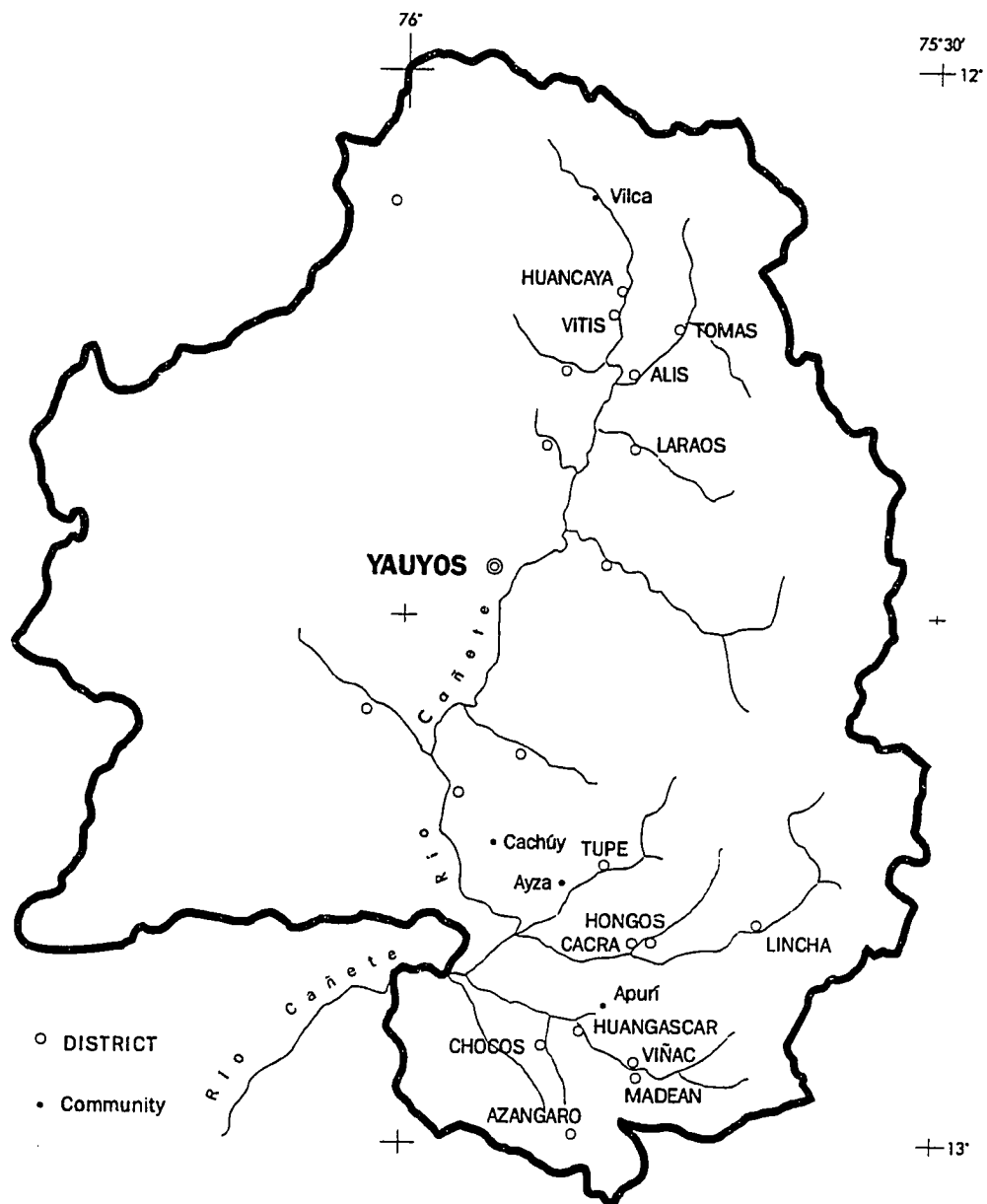
YAUYOS PROVINCE

Map 11

28

1.1.3.3. SUMMARY OF QUECHUA AREAS IN PERU

The following map summarizes the above and displays the areas of Peru where Quechua is spoken.

Quechua

Aymara

**Quechua
in
PERU**

0 1 2 3 4 5 100 Km
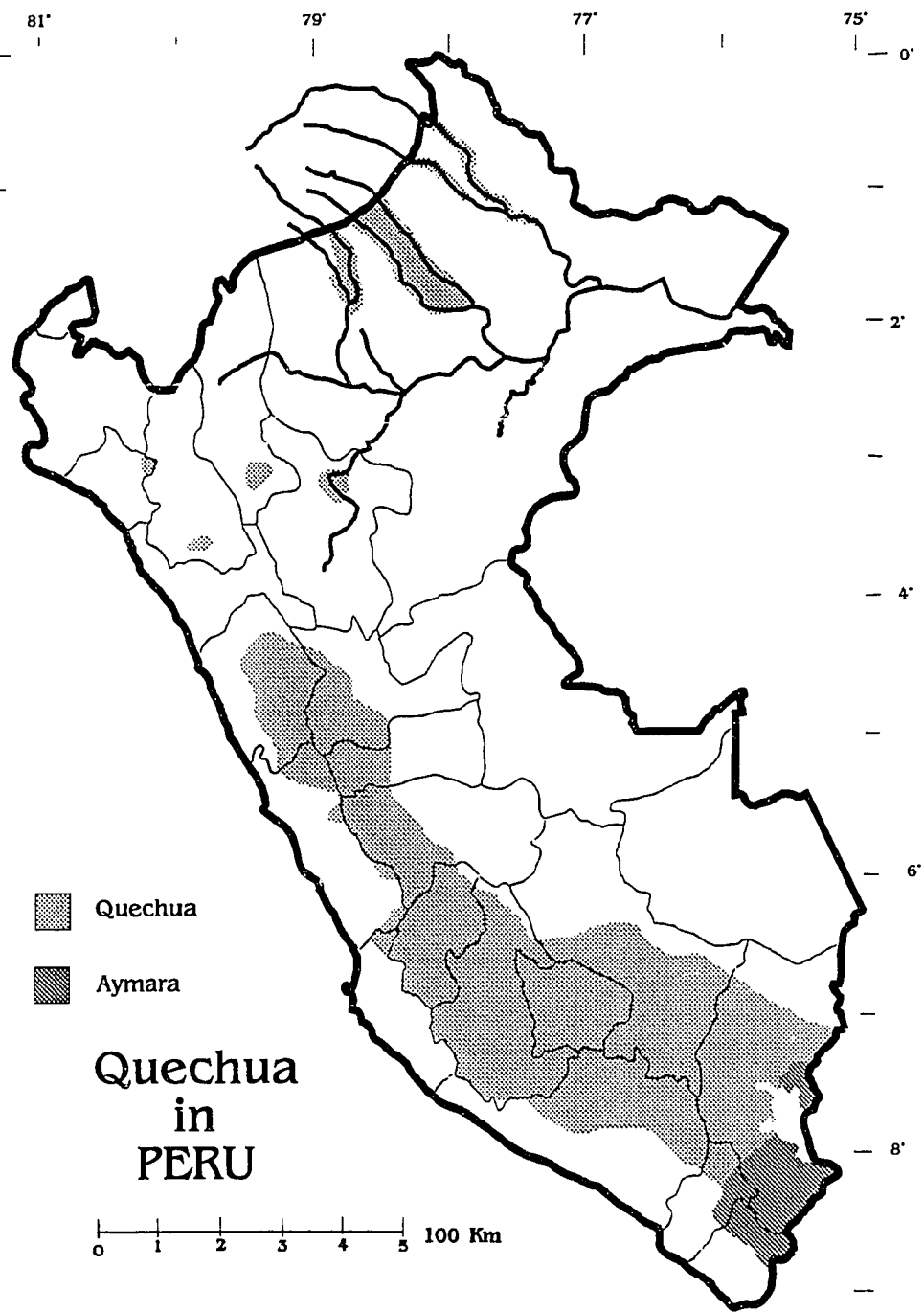
Map 12

1.1.4. BOLIVIA

Quechua is spoken principally in two noncontiguous areas, one of which is located to the north and east of Lake Titicaca in the Department of La Paz. The other is separated from it by a large area of Aymara-speaking communities, and is to be found in the highland areas of the Departments of Cochabamba, Chuquisaca, and Potosí, including a few communities in the easternmost parts of the Departments of Oruro and La Paz. Details of this distribution are shown on maps contained in Albó (1981). His maps (which are the source of those found in Plaza and Carvajal (1985: 165) and Cerrón-Palomino (1988: 69) are based on a careful examination of the results, on the community level, of the 1976 census, and are therefore more accurate than anything available for Peru or Ecuador.

In 1979 I prepared a map of the distribution of Quechua and Aymara in Bolivia based on unpublished work by John Goins and my interviews of Dick Gunderson, a Lutheran missionary who worked for many years in the Department of La Paz, especially in the area north and east of Lake Titicaca, where Lutheran churches exist in many communities. This map was part of the basis of the map of the entire Quechua-speaking area included in Landerman (1979). It is, of course, superseded by Albó's much more complete study. Mine, for example, failed to reveal the interesting islands of Aymara surrounded by Quechua detected by Albó in the Departments of Oruro, Potosí, and Cochabamba. Nevertheless an interesting contradiction does remain regarding the northern boundary of Aymara and the southern boundary

of Northern Bolivian Quechua. Albó, based on what certainly must be good evidence, places the towns of Suches and Ulla Ulla well within the Aymara-speaking area, yet Gunderson explicitly assigned them to the Quechua-speaking territory, and there are Lutheran churches in both communities. This would place the boundary between the two languages further to the south than Albó does. I have no explanation for the contradiction between these two seemingly reliable sources.

The following map is based on those of Albó (1981). Areas of recent migration to the lowland areas (specifically in the Department of Santa Cruz) are not included. The larger island of Aymara communities is cut off from the main Aymara area by the railway which goes from La Paz to Potosí. Quechua speakers, who have gravitated to this railway for commercial purposes, have made their language the dominant one along the line, and thus have divided the Aymara territory. Other Aymara enclaves remain, probably due to Quechua encrouchment in the surrounding territories.

QUECHUA
in
BOLIVIA

Chipaya

SANTA CRUZ

TARIJA

Quechua

Aymara

○ Enclave
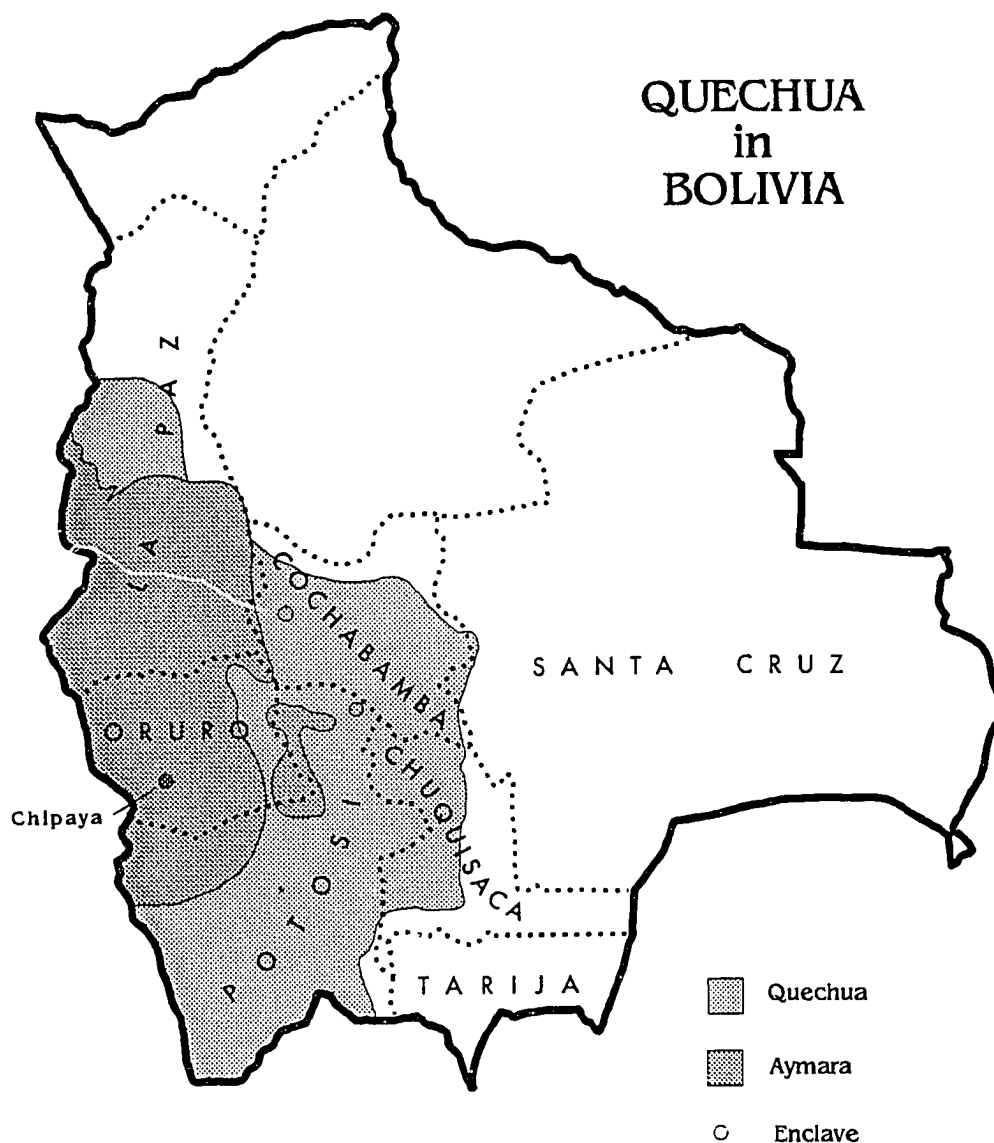
Map 13

1.1.5. CHILE

It is reported (John Goins, personal communication in 1965) that there are three Quechua speaking towns in Chile, just over the border

from the southwestern part of the Bolivian Department of Potosí, in the vicinity of the town of Aiquina.

1.1.6. ARGENTINA

Numerous speakers are reported in an area located in the northwestern part of the country, principally in the Provinces of Jujuy and Salta. Indications are, however, that most of these are either immigrants from southern Bolivia or their descendents. Stark reports a second dialect formerly spoken in the Provinces of Salta, Tucumán, Catamarca, La Rioja, Córdoba and northern Mendoza. For further information see Nardi (1962), Stark (1985a, c), and Burns (1987).

A sizable area, where a distinctive dialect is spoken, is located in the Province of Santiago del Estero. Speakers seem to be scattered over a wide area of the Province mostly in ranches or "pagos" distributed along the courses of the Dulce and Salado rivers. Sources of information on this dialect area are Bravo (1956, 1965, 1975, 1977), Stark (1985a), and Burns (1987) as well as Burns (personal communication in 1990). The following map is based on one found in Bravo (1975).

QUICHUA SANTIAGUEÑO

BOLIVIA

PARAGUAY

CHILE

JUJUY

SALTA

FORMOSA

CHACO

SANTIAGO
DEL
ESTERO

TUCUMAN

CATAMARCA

RIO DULCE

RIO SALADO

SANTA FE

LA RIOJA

CORDOBA

Mar Chiquita
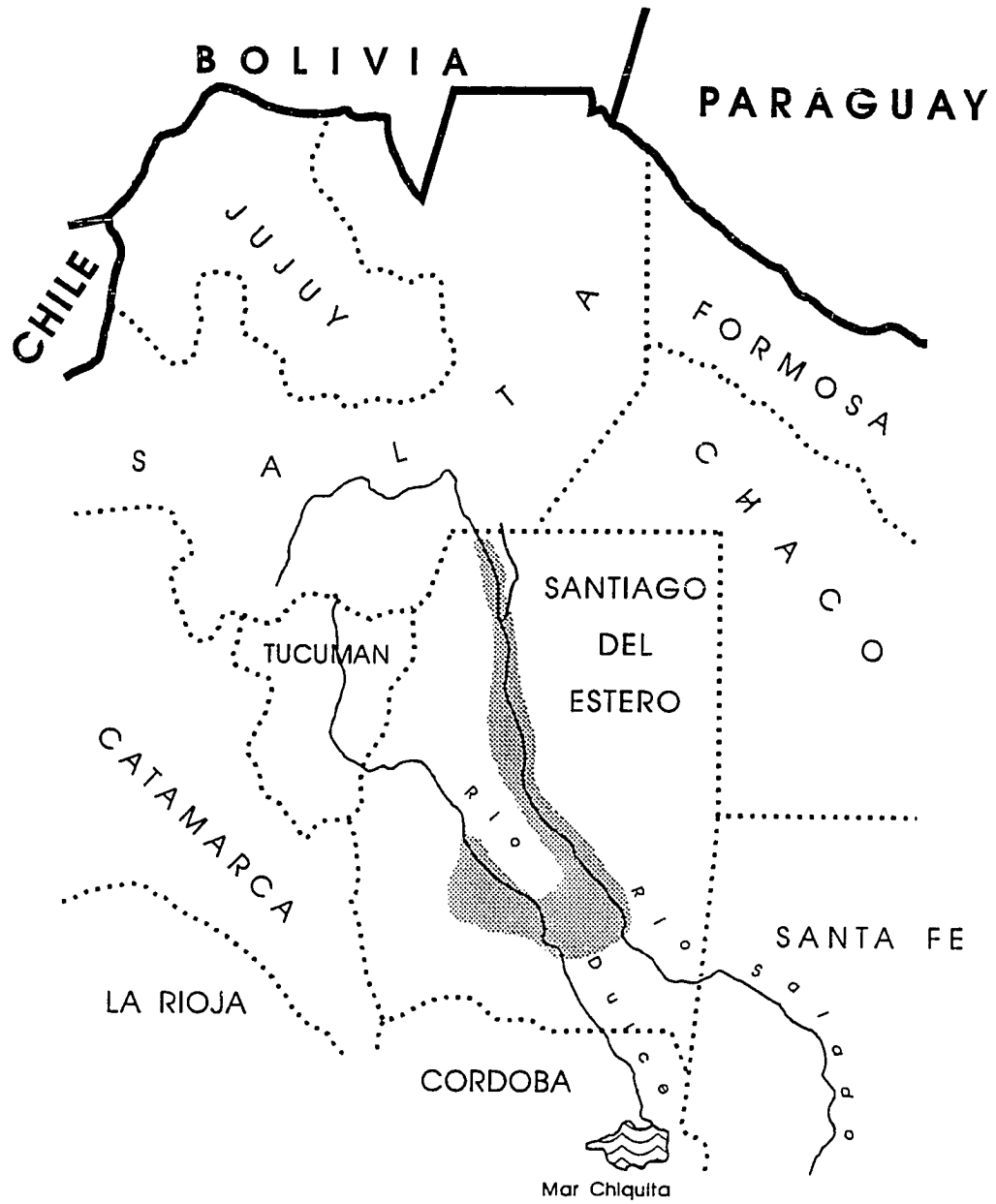
Map 14

1.1.7. FOUR GEOGRAPHICAL-TYPOLOGICAL AREAS

For purposes of reference, all these varieties may be conveniently divided into four groups on the basis of their geographic distribution and certain typological features which will be dealt with later:

1. Northern – including the dialects of Colombia, Ecuador and the Peruvian jungles north of the Marañón river.

2. North Peruvian – the dialects found in four separate areas in the North of Peru: a) in the Department of Lambayeque), b) in the Province of Cajamarca, Department of Cajamarca, c) in the Provinces of Luya and Chachapoyas, Department of Amazonas, and d) in the Department of San Martín.

3. Central – the highly diversified dialects of the departments of Ancash, Huánuco, Pasco, Junín, and Lima.

4. Southern – the so-called Ayacucho and Cuzco dialects in the Peruvian departments of Huancavelica, Ayacucho, Abancay, Cuzco, Puno, Arequipa, and Moquegua; and those of Bolivia and Argentina.

COLOMBIA

ECUADOR

N

NP

Cent

South

BRAZIL

PERU

BOLIVIA

CHILE

ARGENTINA

—0°

—5°

—10°

—15°

—20°

—25°

Northern

North Peruvian

Central

Southern

**FOUR
QUECHUA
DIALECT
AREAS**

100 Km

Map 15

37
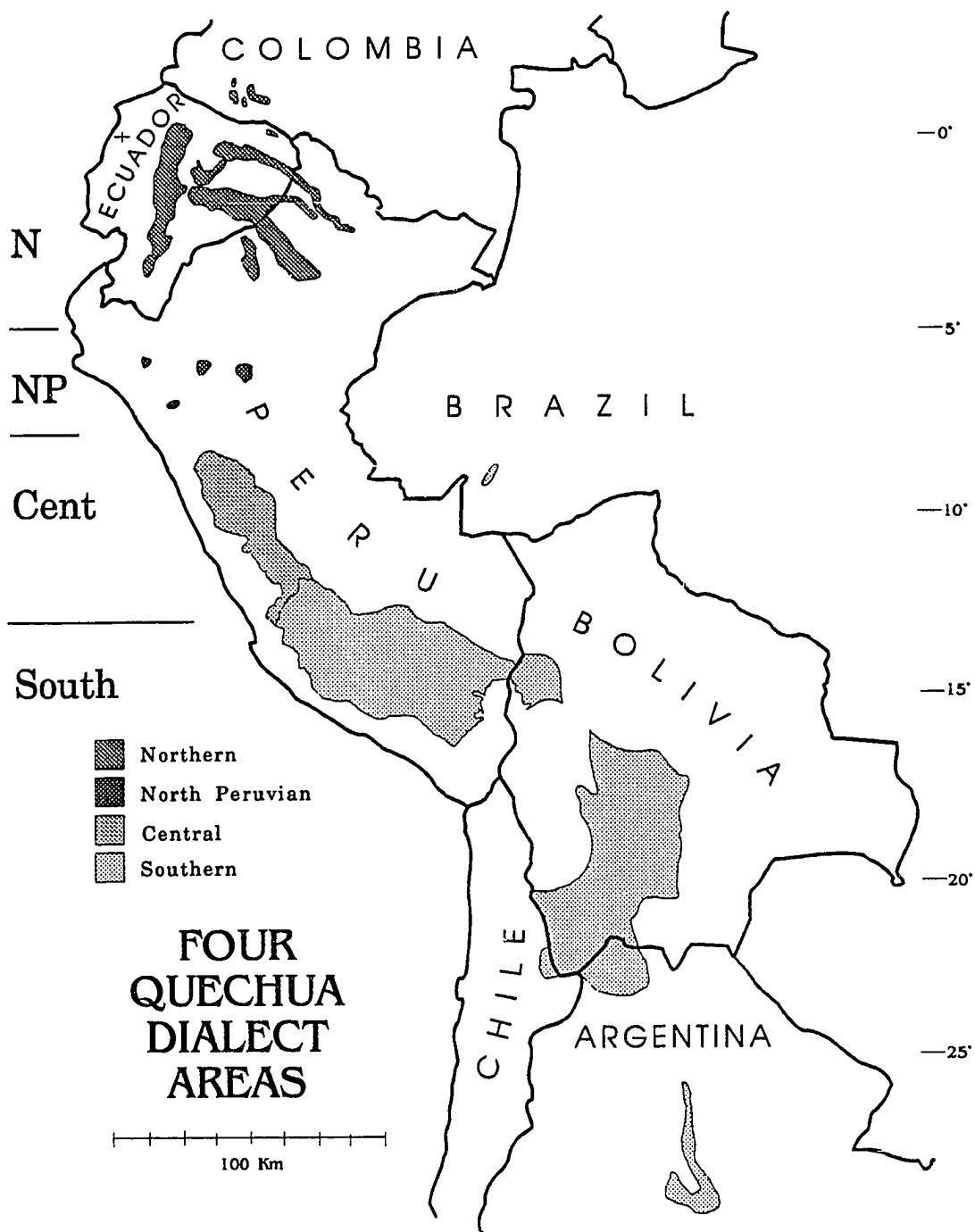
1.2. DIVERSITY

Regarding the degree of diversity of the various Quechua dialects, two different views have been expressed since colonial times. On the one hand many authors refer to Quechua simply as "la lengua general," either ignoring the local variants or down-playing the degree of diversity. The author of the first published grammar and dictionary of any variety of Quechua, Domingo de Santo Tomás (1560a and b), likens the difference between various local varieties to the difference between the way native speakers of Spanish, Portuguese, and French pronounce Latin, presumably just a matter of accent.[10] He does cite some features which distinguish dialects, and from these it is clear that he was aware of the divergent dialects of Central Peru, but it is obvious that his intent was rather to emphasize the linguistic unity of the entire area.

On the other hand, the diversity involved is pointed out even in some of the earliest descriptions of Peru. Thus Pedro Pizarro likened the difference between the speech of the Huancas of the Mantaro Valley and the "lengua común" (i.e., that of Cuzco) to the difference between

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[10]"...por tãto es de notar, q̃ muchos terminos los pronũciã los Indios de vna prouincia distinctamente q̃ los de otra. ...Y lo mismo se dize de otros muchos terminos, q̃ siendo los mismos, los pronũciã y profierẽ con diuersas letras y en diuersa manera: no porque sean distinctos ni de distincta significaciõ sino por la distincta manera de pronũciarlos, lo qual procede de vn defecto general y comun en todas las naciones y lenguas del mundo: dõde vemos q̃ vna misma lẽgua hablada de diuersas naciones y gẽtes, cada vno la habla y pronuncia cõforme ala pronunciaciõ dela suya propria materna, como vemos enla lẽgua Latina.." - *Grammatica*, p. 18 (1951 ed.)

Spanish and Portuguese (Torero 1974:143).[11] Other authors refer to the varieties most different from that of Cuzco as though they constituted a different form of speech, which they call "Chinchaysuyo".

Thus Alonso de Huerta in his 1616 *Arte* distinguishes two "modos de usar."[12] He goes further than the others in that he specifies the geographic distribution of these two groups. One, which he calls "Inga", stretches from Charcas (modern Southern Bolivia) in the south up to and including Huamanga (modern Ayacucho, Peru). The other, "Chinchaysuyo", he describes as extending from there to Quito. He thus clearly intends to distinguish what we have called the Southern Group from the other three groups.

Antonio de la Calancha, in his *Corónica Moralizada* (1639, book IV, ch. 10, p. 858), makes reference to a work by Juan Caxica, an Augustinian who went to Peru in 1573.[13] This work, whose title was *Sermones para todos los Evãgelios de la Iglesia, Catecismos,*

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[11]"Poco difería esta lengua de los guancas a la común, como la de los portugueses a la de los castellanos: digo la de estos xauxas y guancas."

[12]Aunque la lengua Quichua, i General del Inga es una, se ha de advertir primero, que está dividida en dos modos de usar de ellos, que son el muy pulido y cóngruo, y éste llaman del Inga, que es la lengua que se habla en el Cuzco, Charcas, y demás partes de la provincia de arriba, que se dize Incasuyo. La otra lengua es corrupta que la llaman Chinchaysuyo, que no se habla con la pulicia y congruidad que los Ingas la hablan. Y aunque hasta aqui no se han enseñado documentos para hablar la lengua Chinchaysuyo, en este Arte iré enseñando algunos, para que se entienda la diferencia de hablar que hay entre las dos Provincias, que empiezan, la del Inga, desde Guamanga arriba, y la Chinchaysuyo desde allí abajo hasta Quito." - from the Introduccion of Huerta (1616).

[13]cited in Rivet and Créqui-Montfort 1951 (p. 24).

Confesionarios, toda la Doctrina Cristiana en diversos Idiomas, i modos de entender, Imnos i Salmos, i otros estudios de advertencias para los Sacramentos, supposedly was a manuscript consisting of thirty two volumes. Joachimus Brulius (Joaquim Bruel), in his *Historiæ pervanæ ordinis eremitarvm S. P. Avgvstini* (Anvers, 1651), likewise refers to this work, and says that it was written in four languages which were "considered general" in Peru, namely, Spanish, Aymara, Chinchaysuyo, and Quichua.[14] The existence of the work by Caxica (unfortunately lost) would indicate that at least some considered "Chinchaysuyo" to be different enough from Quechua to merit a separate translation.

In modern times, with the greater mobility and ease of travel which facilitates contact, there has been a greater awareness of the differences between the various dialects. In spite of this, however, the diversity continues to be downplayed in the popular mind due to the common belief, supported and propagated by the educational system, that all modern varieties of Quechua are mere corruptions of the imperial language of the Incas, which have arisen in the four centuries since the Spanish conquest. The "dialects" (a term which has strong pejorative connotations in popular usage) are usually described as having been corrupted by Spanish influence (Spanish loans they contain are constantly cited as evidence of this), while the imperial language in its pristine form is thought to be still represented by the modern speech of the Cuzco area.[15]

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[14]likewise cited in Rivet and Créqui-Montfort (p. 24, 114).

[15]It is interesting that this notion of "corruption by influence" (though, in this case, it is attributed to other "mother tongues,") is already to

Numerous colonial works from the sixteenth and seventeenth centuries, in addition to the large amount of descriptive material on the lesser-known varieties which has become available over the last twenty years, show how incorrect this long-standing popular notion is. On the one hand it is clear that the divergent dialects of the Center and North preserve certain archaic features which had been lost in the South by at least early colonial times. Therefore the Central Dialects cannot, by any stretch of the imagination, be corruptions of Imperial Cuzco Quechua. On the other hand, a careful study of the colonial documents written in the Cuzco dialect reveals that the modern varieties found in that area have undergone a number of significant changes since early colonial times.

Depending upon what is meant by the term "dialect" and "separate language," the various varieties of Quechua form either a group of quite divergent (in some cases mutually unintelligible) dialects of one language, or else a group of closely related languages.

Traditional usage of the terms "language" and "dialect" is notoriously inconsistent, being often based on political and social rather than strictly linguistic factors. The oft-cited criterion of mutual intelligibility is itself a matter of degree, not the well-defined absolute

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be found in the first published work on Quechua, Santo Tomás, 1560a, p. 18 (1951 ed.).

that casual usage often implies.[16] Extreme cases of intelligibility or lack thereof are, of course, easy to recognize, but the cut-off point in the continuum between the two is a matter of arbitrary definition.

With regard to Quechua, despite the lack of a clear definition or an empirical test, most scholars now agree that several different languages are involved, since intelligibility between the more divergent varieties is obviously marginal. As a result the term "Quechua Languages" has become common in the literature. There is however no agreement on the number of such "languages" which should be recognized. Therefore, as was mentioned earlier, in order to avoid the question of which should be considered separate languages and which simple dialectal variants of these, I shall refer to all local forms as "dialects of Quechua," with the caveat that this use of the term "dialect" is at times more broad than is often intended in popular usage.

Few formal tests of mutual intelligibility between Quechua dialects have actually been conducted. One that I made in the Central area in 1970 mostly showed the difficulty of obtaining meaningful results from an easily administered test. A series of native speakers were asked to listen to recordings from several different areas and then to answer ten questions on the content of each to test their understanding. Examination of the results showed that the scores mainly depended upon how the questions asked were formulated. If the answer to the question

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[16]Of course one can attempt to quantify mutual intelligibility in terms of one sort of test or another, but this does not relieve one of the task of making an ultimately arbitrary decision as to where the dividing line will be placed.

depended on an area-specific word, the question tended to be missed. Phonological differences, as would be expected, gave rise to little difficulty. All varieties tested were from the Central area, so morphological and syntactic differences were not very pronounced.

One factor which leads to the underestimation of the differences between dialects are claims on the part of Quechua speakers that they understand without great difficulty most or all other dialects. Several closely observed situations may serve to illustrate the lack of mutual intelligibility that can actually exist.

David Coombs reports (personal communication) having had the following experience with a university-educated Quechua speaker from the Department of Ancash, who claimed to be able to understand all other varieties of Quechua. A lengthy text on tape from the Cajamarca area was played for the speaker, who then reported on the topic of the text and even gave a purported sentence-by-sentence translation. In fact these were quite different from the actual content of the text; not even the general topic dealt with was correct.

In 1988, in a class on Quechua dialectology, I conducted an experiment with a speaker from Andahuaylas (Apurímac Department) who claimed that all forms of Quechua are essentially the same and easily mutually intelligible. He and a speaker of a Huanca dialect (from southern Junín Dept.) were each asked to give a short talk about himself and his background. Then each was asked to translate what the other had said. Though Huanca dialects are among the more difficult

for outsiders to understand, the speaker from Andahuaylas did a marvelous job of guessing the content of the other's speech, largely through recognizable Quechua cognates, Spanish loans, and a healthy imagination applied to the general context. He even was correct about the number of each sex of the speakers children, though the words for "boy" and "girl" are non-cognate. Undoubtedly this was due to the fact that the number of boys is usually mentioned first in such contexts. The Huanca speaker, on the other hand was only able to correctly translate about half the utterances of the Andahuaylas speaker, even though his dialect is considered easier to understand for speakers from other areas. Both were then asked to translate a procedural text from Corongo (a Central dialect found in northern Ancash Department) on how to cook guinea pig. Neither could guess even the topic of text, and the Andahuaylas speaker commented, "This was obviously written by some one who doesn't know Quechua."

The Congress of Academies of Quechua of the Southern Area in the city of Arequipa in January of 1988 provided another interesting case. Delegates in attendance represented almost exclusively the Southern dialect areas of Arequipa, Cuzco, and Puno, as well as a contingent representing the Academy of Cochabamba, Bolivia. From the outset there was strict insistence that all presentations be given only in Quechua. Little difficulty in communication was observed among the delegates from Arequipa, Cuzco, and Puno. The lone representative of a Central dialect, a speaker from the Huanca area of Junín Department, did not really expect to be understood when he spoke in his dialect, so

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he followed with a Spanish translation. No one objected, since they had understood exactly nothing of his talk, which was a defence of his native dialect as being just as "legitimate" as the others.

The surprise for all came with the presentations of the Bolivian delegates. The first, not a particularly forceful speaker, was met with persistent murmurs of "That's no way to talk Quechua!" The following day saw a masterful presentation by a highly qualified member of the Bolivian delegation, one with sixteen years experience as a radio announcer in Quechua and two years as a television announcer in the Cochabamba area. At the end of his talk, which dealt with the linguistic problems encountered in using Quechua as the language of television broadcasting,[17] a delegate from Puno, the area geographically closest to Bolivia, timidly raised his hand and requested (in Spanish) that the speaker give a small summary of his presentation in Spanish so that the rest of them could understand.

This obvious lack of comprehension is most surprising if one takes seriously the contention of many that Cuzco, Puno, and Cochabamba all constitute a single variety, which they call the "Cuzco-Bolivian" dialect. See, for example, Torero (1964: 475,), Cerrón-Palomino (1987: 243), etc. This claim is probably based on the fact that the dialects in question are fairly similar in their phoneme inventories. Syntactically, however, Cochabamba differs significantly from the Southern Peruvian dialects,

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[17]The content was readily intelligible even to a non-native speaker such as myself, who initiated his studies of Quechua with courses on the Cochabamba dialect at UCLA.

especially with regard to relativization, which was probably the main reason for the lack of comprehension at the Arequipa Congress.

1.3. GENERAL CHARACTERISTICS OF QUECHUA

Before entering into a discussion of the differences between Quechua dialects, it will be convenient to discuss the nature of the language in general terms so that this may be used as a basis for comparison.

1.3.1. PHONOLOGY

Though certain aspects remain controversial, the application of the comparative method leads to the reconstruction of a system of contrasts involving at least the following proto-phonemes based on well attested sound correspondences:[18]

Consonants							Vowels	
*p	*t	*c	*x	*k	*q		*i	*u
	*z	*s			*h		*a	
*m	*n	*ñ						
	*r	*£						
*w		*y						

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[18]The symbols c, x, z, s, and £ are chosen merely for the sake of convenience.

Regarding the original phonetic nature of these proto-phonemes, a good deal can be said.[19] There is really little disagreement about the original phonetic value of *p, *t, *k, *h, *m, *n, *ñ, *r, *£, *w, and *y.

*p, *t, and *k were voiceless stops; *m, *n, and *ñ nasals; *h a voiceless fricative; *£ a voiced alveopalatal lateral; and *w and *y voiced approximants.

*r was in all likelihood a simple flap [ř] in all positions, similar to the Spanish intervocalic "r". Virtually all dialects of Quechua have acquired a new phoneme /r̃/ through Spanish loans containing "rr".[20] It is usually realized as a voiced retroflex sibilant [ž], commonly the pronunciation of the so-called trilled "rr" in the local varieties of Spanish. For example, karu [kařu] 'far' contrasts with kar̃u [kažu] 'car' (< Sp. "carro"). In Spanish the flap "r" and the so-called trill "rr" contrast only intervocalically, being mutually exclusive elsewhere. Only the trill r̃ (whatever its local realization is), occurs word-initially, in spite of Spanish orthographic tradition, which now writes only the single "r" in this position. This contrasts with the Quechua situation where only [ř] occurred word-initially. The result is that when Quechua adopted Spanish loans with initial "r", they were perceived

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[19]Provided, of course, one does not hold to the strictest view of reconstructed proto-phonemes as merely cover symbols for sets of correspondences without any phonetic reality whatever.

[20]I use the symbol r̃ to represent the so-called trill in order to avoid confusion. In many works on Quechua, especially those out of the Cornell tradition, the symbol "ř" is used for this phoneme. This might mislead those accustomed to the use of this symbol in the Americanist tradition for the "flap r" (in reality a tap).

(correctly) to contain the new phoneme /ř/. In this way Quechua acquired a word-initial contrast which neither language had to begin with. For example, rumi [řumi] 'stone' versus řusu [ǯusu] 'Russian' (< Sp. "ruso").

Many Quechua dialects have not only borrowed the Spanish contrast [ř] ≠ [ř] but have gone on to adopt its distributional restrictions as well. In practical terms this means that they have eliminated the contrast word-initially, following the Spanish norm of allowing only the "trill" ř in this position and applying it to native roots as well, thus rumi 'stone' is [ǯumi]. Certain dialects, however, such as that of Ayacucho, have resisted this tendency, preserving the simple flap [ř] initially in native words while exhibiting the initial [ř] of the source language in Spanish loans.

*q varies considerably in its phonetic realization from dialect to dialect and according to phonological environment. In modern dialects it is usually post-velar and is found in both voiced and voiceless, as well as stop and fricative varieties. In some areas it has merged with *k or *h. Considerations of naturalness and geographic distribution have led to the virtually universally held opinion that it was originally a voiceless post-velar stop.

Although the exact conditions and results vary somewhat from dialect to dialect, *q, wherever it retains its post-velar character, has the effect of lowering adjacent high vowels i and u. The results can be all the way from [ɪ] and [ʊ] to [ɛ] and [ɔ].

*c and *x were both voiceless affricates, as is clear from their modern reflexes. Their respective points of articulation, however, vary a good deal in the Central dialects. In a number of areas they have merged to a single alveopalatal reflex [č]. Parker, who was the first to announce the reconstructed distinction in print (Parker 1963),[21] initially posited [ts] and [č] as the original form of *c and *x respectively, probably because these are the reflexes in the Ancash dialects he was working on at that time. Torero in his 1964 work chose [č] and [ĉ] as the original forms without saying why. However, the geographical distribution of reflexes, which he provides in the cited work, makes it clear that this is the only reasonable possibility. Parker adopts this solution in his subsequent work, as has virtually every one else.

*z and *s clearly contrasted in the proto-language although they have merged into a single sibilant over a large area of dialects, namely the whole Southern group. The contrast still existed even in this area at the time of the Spanish conquest, as can be discovered by a careful examination of early colonial spellings. Evidence for this was first pointed out by Rowe (1950). He also noted that there was a problem as to their original phonetic nature and left that question open. Subsequently Parker and others assumed them to have been voiceless sibilants, alveolar [s] and alveopalatal [š] respectively. This is based (presumably, since they don't really consider any other possibility) on the fact all modern reflexes are voiceless sibilants; and, with the

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[21]Torero, whose field work antedated that of Parker by a number of years, obviously was aware of it earlier than the date of Parker's work.

exception of Huanca, all dialects maintaining the distinction now show the alveolar [s] and alveopalatal [š] reflexes respectively.

More recently I have argued that there is good evidence to support their having been more like dental [s] and apical retroflex [ṣ] respectively (Landerman 1979, 1982). This has been seconded by Mannheim (1988).

All modern dialects have a phoneme /l/, which occurs in native roots, though these are not numerous in most dialects. Parker decided there were enough cognates to reconstruct a proto-phoneme *l. Two circumstances raise doubts about this reconstruction:

1. The fact that native roots with /l/ are relatively rare except in cases where they are the result of more recent innovation.

2. The fact that González Holguín (1608) states that there was no such sound as "l" in the language, and he records the words currently having /l/ with "ll".

At best any reconstruction of *l can only be said to be tentative.

All modern dialects have the additional phonemes /b/, /d/, and /g/, resulting from Spanish loans and in some dialects, from internal evolution. These are found even in the speech of the most monolingual individuals. These follow the local Spanish norms of pronunciation for the most part: /b/, /d/, and /g/ are voiced fricatives which vary with voiced stops in some environments. This means that all dialects

currently have the contrasts /p/ ≠ /b/, /t/ ≠ /d/, and /k/ ≠ /g/.

With rare exceptions in some dialects, native roots consist of syllables having the structure (C)V(C), with no vowel clusters allowed. This means that consonant clusters are restricted to CC, are not tautosyllabic, and do not occur word-initially or word-finally. It is also the case that no root consists of simply a vowel.

Suffixes may have the canonical shapes -C or -C(C)V(C). Suffixes of the form -C or -CCV(C) cannot be added to roots ending in a consonant, or else CCC clusters and word-final CC# clusters would result. This possibility is avoided in various ways, one of which is the process of NI Insertion dealt with below in the section on morphophonemics.

Contrastive length in vowels is found in the Central dialects in both roots and suffixes. In general it is restricted to occurring in open syllables (see Weber and Landerman, 1985 for details). In roots and certain suffixes it appears to be the result of phonological changes. In other suffixes its source is not clear. Spanish loans have greatly increased its frequency of occurrence, since stressed vowels of the source language are usually interpreted as being long. Loss of consonants with compensatory lengthening, such as *q in certain contexts, has been another source in some dialects, especially Huanca.

Stress is penultimate in the majority of Quechua dialects. One notable exception is the dialects of Amazonas (North Peruvian Area)

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where it is strongly word-initial, which is undoubtedly behind the radical loss of vowels characteristic of these dialects. Another pattern which has been observed in several areas is for stress to be penultimate on utterance-final words but initial on prior words. No in-depth study of this phenomenon has been carried out to date. The dialects of the Callejón de Huaylas area of Ancash Department appear to have a more complicated system of stress. The details have not as yet been worked out.

1.3.2. MORPHOPHONEMICS

Several morphophonemic alternations are common to a number of dialects. Among these are what may be called Vowel Lowering, NI Insertion, and Y Elision.

VOWEL LOWERING. In this process the high vowels /u/ and (more rarely) /i/ of certain verbal MODAL suffixes are lowered to become /a/.[22] This process takes place only when certain other MODALS follow in the sequence of affixes which form the verb word. The MODALS which undergo this change are usually marked in technical works on Quechua by representing the vowels as morphophonemes U and I. U stands for an alternation between /u/ and /a/, while I stands for an alternation between /i/ and /a/. For example,

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[22]See the section on morphology below for the definition of MODAL suffixes.

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ura	*-yku̱*	*-y*	'Get down!' [Ayacucho][23]
ura	*-yka̱*	*-mu -y*	'Come down here!'

These will be written morphophonemically as

ura -ykU -y

and

ura -ykU -mu -y,

respectively. *-ykU* is one of the MODALS undergoing the change, and *-mu* is one of those triggering it.

NI INSERTION. This is a process which takes place when a Possessive Person Marker or the Possessor suffix *-yuq* is added to a nominal stem ending in a consonant. Under these circumstances, an empty morph *-ni* is inserted before the possessive suffix. For example if the 1st person possessive *-y* is added to the root *yawar* 'blood', the result is

yawar-ni	*-y*	'my blood' [Ayacucho]
blood	1POS	

Y ELISION. Certain suffixes whose basic form is *-y* or *-yCV(C)* drop the /y/ when they follow the vowel /i/. These are usually written with the morphophoneme Y (capital Y), which stands for a phonologically conditioned alternation between /y/ and zero. For example,

[23]In examples the particular dialect represented will be indicated in square brackets [].

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simi *-Yki* = /simiki/ 'your mouth'   [Ayacucho]

mouth 2POS

yawar-ni *-Yki* = /yawarniki/   'your blood'

blood   2POS

1.3.3. MORPHOLOGY

Quechua may be characterized as an agglutinative language of the suffixing type. No true prefixes are found in any of its varieties. Of course there are constraints on word order, but the suffixes of the language, and their combinations, bear by far the greatest burden in expressing all the grammatical relations and structure, to a far greater degree than in European languages. What follows is a thumb-nail sketch of the morphology common to most dialects.

Quechua suffixes may be divided generally into three groups according to the stem class they occur with: NOMINAL suffixes occur after nominal stems,[24] VERBAL suffixes after verbal stems,[25] and INDEPENDENT suffixes after any class of stems.[26]

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[24]These consist of noun stems, nominalized verbs, etc.

[25]These consist of verb stems, verbalized nouns, etc.

[26]The number of stem classes in Quechua can be debated. In a complete grammar one would probably need to establish an adverbial class. One might also wish to distinguish a class of adjectives, though on purely morphological grounds these are not different from nouns. For our purposes here it will suffice to distinguish nouns from verbs.

Certain suffixes, among their other functions, effectively change a stem of one class to another class or subclass. These have often been called derivational suffixes, though the distinction between derivational and inflectional morphology in Quechua is not always clear or precise.

In what follows it will be seen that both nouns and verbs can be inflected for person. There are pronouns, which are separate words, to indicate the following seven "persons":

1st singular	*ñuqa*	[Ayacucho]
2nd singular	*qam*	
3rd singular	*pay*	
1st plural exclusive	*ñuqayku*	
1st plural inclusive	*ñuqančik*	
2nd plural	*qamkuna*	
3rd plural	*paykuna*	

The plural pronouns are obviously derived from the singular ones.

Throughout this work, these seven persons will be indicated by means of the following numbers (in order): 1, 2, 3, 11 (exclusive), 12 (inclusive), 22, 33.

1.3.3.1 NOMINAL SUFFIXES

Nominal stems consist basically of noun stems and nominalized verb stems. They do not require inflection. Nominal suffixes may generally be divided into three subgroups: Possessives, Pluralizers, and Case markers. These normally occur in the following order:

N–Stem – (Poss) – (Plural) – (Case)[27]

For example,

čakra -yki -kuna -manta   [Ayacucho]

field 2POS PL   ABL

'from your fields'

Quechua word order normally places the head of a noun phrase in the right-most position. Nominal suffixes are attached to the head, but it should be understood that their scope is often the whole preceding noun phrase. Thus in the phrase,

anča   hatun   wasi -pi [Ayacucho]

very   large   house LOC

'in a very large house'

the structure is best considered to be something like,

```
              LocP
           ___/  \
         NP       \
      __/  \        \
   AdjP     \        \
  _/  \_     \        \
Adv   Adj    N         \
anča  hatun  wasi      -pi
```
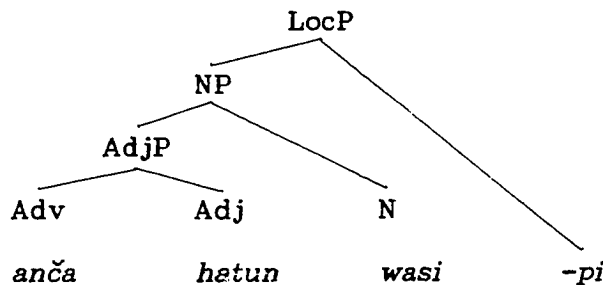
Therefore, strictly speaking, the three classes of Nominal Suffixes apply to whole noun phrases, so the "N-Stem" position in the formula given earlier should include NP's as well.

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[27]The parentheses indicate optionality.

The Possessor suffix *-yuq* (POSR), which does not belong to any of the three classes of Nominal Suffixes, forms a construction indicating one who possesses the object designated, as in,

wasi   *-yuq*   'one who has a house'
house   POSR

It has been called a derivational suffix, but its scope may also be the whole preceding noun phrase, though it may also apply to just the preceding stem. Thus the phrase,

anča   *hatun*   *wasi* *-yuq* [Ayacucho]

very   large   house POSR

is ambiguous between (a) and (b):

(a) 'a very large house-owner'

(b) 'one who owns a very large house.'

In what is clearly a more straight-forward case of derivation, Diminutive suffixes may occur with a noun stem, in some dialects forming another noun stem, as in,

misi   *-ča*   'a little cat'   [Ayacucho]
cat   DIM

The possessive person markers (POS) indicate the possessor of a noun stem or the subject of a nominalized verbal expression. Typical forms for these are as follows:

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1	-y / -:[28] (varies according to dialect)
2	-yki
3	-n
12	-nčik

The first person possessive form (1) is notorious for its variation between dialects, and has been considered one of the main bases for dialect classification, as we shall see. The 11, 22, and 33 possessive forms are pluralizations of the 1, 2, and 3 forms respectively, which are formed in different ways according to the area.

PLURAL -- The vast majority of dialects employ the suffix -kuna (or some derivative thereof) as the noun pluralizer. In a few areas such as Southern Bolivia and Santiago del Estero (Argentina) the Spanish pluralizer -s has been adopted in certain contexts, such as when the stem ends in a vowel, e.g.,

alqu	*-s*	*-ni*	*-y*	'my dogs'	[Cochabamba]
dog	PL		1POS		

The possessive may be independently pluralized in some dialects, while in others the occurrence of a Plural can ambiguously pluralize the possessor person, the object possessed, or both. Compare, for example, the following Cuzco forms,

čakra -yku	'our (excl.) field' [Cuzco]
field 11POS	

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[28]The colon ":" indicates lengthening of the preceding vowel.

čakra -y   -kuna   'my fields'

field 1POS PL

čakra -yku -kuna   'our (excl.) fields'

field 11POS PL

with the following form from San Martín, which is three ways ambiguous among the meanings of the Cuzco forms,

čakra -yni -kuna   'my/our field(s).' [San Martín]

field 1POS PL

CASE -- The basic case marking suffixes in most modern dialects (with very approximate English equivalents) are as follows:

Genitive	*-pa*	'of'
Accusative	*-ta*	'dir obj.'
Locative	*-pi* / *-čaw* (by dialect)	'in, on'
Ablative	*-manta* / *-pita* (by dialect)	'from'
Instrumental	*-wan*	'with'
Purposive	*-paq*	'for'
Directional	*-man*	'to, toward'
Limitative	*-kama* / *-yaq* (by dialect)	'up to'

1.3.3.2. VERBAL SUFFIXES

Verbal stems require at least one suffix, either a SUBJECT person marker, or a marker of subordination, which may be an adverbializer or

a nominalizer.[29] The verb may be viewed in general as having the following position classes of suffixes:

V-Stem - (MODAL) - (OBJECT) - (TNS/SUB) - (SUBJECT)

For example:

puñu -či -wa -rqa -nki   [Cochabamba]

sleep CAUS 1OB PST 2SU

'You caused me to sleep.'

The MODALS[30] are a series of suffixes which add certain nuances to the meaning of the verb. Sometimes the added meaning is fairly easy to specify, as in the causative example above. In the case of other MODALS it can be extremely hard to define, and may seem to depend a good deal on the individual verb the modal is used with. Their function and properties are not unlike the verbal prefixes of Latin or Russian or the particles of English verb-particle combinations. Like these European counterparts some originally had spatial meanings such as,

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[29]For the purposes of morphology alone, it might be possible to consider these last two to be a single category. They differ in that nominalized constructions may be followed by the whole range of case markers, while adverbial constructions may not.

[30]I use this term since it has become quite common in descriptions of Quechua dialects. It should not be taken as implying that meanings of these suffixes have anything to do with what has been traditionally called mood or mode in other languages.

-ykU[31]	inward
-rqU	outward
-rkU	downward
-rpU	upward

Certain MODALS such as *-či*, Causative, *-pU*, Benefactive, *-kU*, Reflexive, and *-nakU*, Reciprocal, have the effect of changing the transitivity of a verb stem, either increasing or decreasing it. Others add an aspectual meaning to the action.

Though some are mutually exclusive, several Modals can occur together in the same word. In such cases their order is mostly, but not totally fixed. They may really be considered, therefore, to form a set of position classes.

MODALS vary a great deal as to their geographic distribution. Some, such as the Causative *-či* (CAUS), are found in virtually all dialects while others are restricted to quite small areas or particular dialects.

One modal which occurs in all dialects but which varies a good deal in shape from dialect to dialect is the so-called Durative. In meaning it is much like the progressive aspect in English, e.g.,

miku *-ni*		'I eat.'	[Ayacucho]
eat	1SU		

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[31]Capital U indicates that these undergo Vowel Lowering. See the section on morphophonemics above.

miku -čka -ni   'I am eating.'

eat   DUR 1SU

The order of MODALS, when it is fixed, is not always the
"logical" one. For example, in the Central dialects, the Durative -ykā
must be before the Causative -či, as in,

puñu   *-ykā -či   -n*   [Panao]

sleep   DUR CAUS 3SU

'He is causing to sleep.'

OBJECT markers occur only with transitive verb stems. In order
to describe the combinations of these which occur with the SUBJECT
markers, the colonial grammarians employed a concept they referred to
as "transitions", a term is still in use today in some grammars. Each
"transition" is a particular combination of subject and object persons,
for example the first person acting on the second is one transition,
while the second acting on the first is another; the second on a third
person is yet another, etc. These will be symbolized as 1-2, 2-1, and
2-3, respectively.

The transitions are not morphemes *per se* nor combinations of
morphemes, but syntactic categories. The reason it is convenient to
have a way to refer to these combinations of syntactic subject and
object is that the paradigm is not completely regular, as we will see in
the chart below. It contains the combinations of morphemes that occur
in the position slots labeled "SUBJ" and "OBJ" in the verbal formula
given earlier. These combinations, which express the various

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transitions, are displayed by plotting subject person against object person. At each intersection the fillers of the OBJ and SUBJ slot corresponding to the particular transition are specified. The forms displayed are those for Ayacucho, but the pattern is typical for most dialects.

| | OBJECT | | | | | |
| | 1 | | 2 | | 3 | |
SUBJECT	OBJ	SUBJ	OBJ	SUBJ	OBJ	SUBJ
1	----------			*-Yki*		*-ni*
2	*-wa*	*-nki*	----------			*-nki*
3	*-wa*	*-n*	*-su*	*-nki*		*-n*

The following should be noted:

1. There is no overt marker in the OBJ slot for 3rd person objects. The forms found in the SUBJ slot of 3rd person object transitions (1-3, 2-3, 3-3) are the same as those which mark subjects in intransitive verbs.

2. There is no marker in the OBJ slot for 2nd person object in the 1-2 transition. Instead there is a special form in the SUBJ slot.

3. Although there is a marker for 2nd person object in the OBJ slot for the 3-2 transition, the marker in the SUBJ slot is *-nki*, ordinarily associated with 2nd person subjects, rather than the expected *-n*, marker of 3rd person subjects.

4. The 1-1 and 2-2 forms do not occur because these are expressed with the Reflexive -kU.

TNS/SUB[32] consists of tense markers, adverbializers, and nominalizers. Among these are -rqa Past Tense (PST), -pti Switch-Reference Different-Subject (SR≠), -spa Switch-Reference Same-Subject (SR=), -q Agent, i.e., "one who ___" (AG), -sqa Past Participle (PPT), -na Future Participle (FPT), -y Infinitive (INF), etc. I have grouped these into a single slot based on their mutual exclusivity. Thus it is not possible to employ tense and switch-reference together. Examples are,

wañu	-či	-q	'one who kills'	[Ayacucho]
kill	CAUS	AG		

wañu	-či	-spa	'having killed (it)'
kill	CAUS	SR=	

wañu	-či	-rqa	'He killed (it).'
kill	CAUS	PST	

The verbal subject markers, which fill the SUBJ slot, are obligatory with verbal stems and resemble, but are not all identical to the possessive person markers seen above. For the singular persons and the first person inclusive plural (dialects vary as to how the other plurals are formed) we have:

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[32]This is a term (admittedly inadequate) I have adopted here to designate what is considered, for our purposes, a single position class. This is not the normal practice in works on Quechua.

	SUbject	POSsessive	
1	*-ni*	*-y*	[Ayacucho]
2	*-nki*	*-Yki*	
3	*-n*	*-n*	
12	*-nčik*	*-nčik*	

When a subordinator (adverbializer or nominalizer) occurs in the TNS/SUB slot, the category of the whole construction (stem or phrase) changes to that designated by the suffix.[33] A nominalizer causes subsequent morphology to be essentially that of NOMINALS. As a result, subjects of what were verbals are now indicated by the POSSESSIVE suffixes associated with nominals, and suffixes of Number and Case may follow. For example,

maqa -wa   -sqa -Yki -manta   [Ayacucho]

hit   1OB   NOM   2POS ABL

'about (the fact that) you hit me'

1.3.3.3. INDEPENDENT SUFFIXES

The independent suffixes occur after the categorial suffixes treated above at or near the end of the word. They can occur with words of any category and therefore have been often called "enclitics". Some have as their scope only the word or phrase that precedes, while others apply to the whole sentence in which they occur. Typical among them and common to most dialects are,

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[33]For this reason these suffixes are usually treated as a separate position class and described as derivational.

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-pas	'also'
-ña	'already'
-raq	'still'
-taq	content question
-ču	negation
-qa	topic[34]

and the evidentials,

-mi	affirmative
-ši	reportative
-či	speculative
-ču	yes-no question

or dialect variants of these. Others occur in various dialects.

The independent suffixes, their function and distribution, in spite of the enormous amount of work on Quechua done to date, remain one of the most difficult and interesting areas of Quechua grammar.

For more or less complete descriptions of the grammar of various specific dialects see Parker (1969e) [Ayacucho], Cerrón-Palomino (1976) [Huanca], Coombs *et al.* (1976) [San Martín], Cusihuamán (1976) [Cuzco], Parker (1976) [Ancash], Quesada (1976) [Cajamarca], Soto (1976)

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[34]I will continue to use this inadequate term since it is the most common designation in the literature for this suffix. -qa has a number of functions, among which are the marking of previously mentioned entities, especially when these shift in grammatical role, etc.

[Ayacucho], Adelaar (1977) [Tarma], Herrero and Sánchez de Lozada (1978) [Cochabamba], and especially Weber (1989) [Huallaga].

1.4. GENERAL CHARACTERIZATION OF DIALECT AREAS

In this section I shall outline some of the features which are characteristic of each of the four geographic areas that were delineated above. These are not an all-and-only set of features, but rather a list of what is typical in each area.

1.4.1. SOUTHERN AREA

1. The retroflex affricate *x has merged with the alveopalatal affricate *c, both now being realized as the alveopalatal affricate [č]. For example in Ayacucho /čaki/ means both 'dry' and 'leg', from *xaki 'leg' and *caki 'dry'.

2. The Durative is -čka or some derivative thereof. -ška, -ša, -sa, -sya, -čʰa and even -sqa are reported for different areas. For example,

    puñu -čka -n   'He is sleeping.' [Ayacucho]

    sleep DUR 3SU

3. The 1st person Subject marker (1SU) is -ni. The 1st Person Possessive marker (1POS) is -y. For example,

    puñu   -ni   'I sleep.'   [Ayacucho]

    sleep   1SU

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puñu -sqa -y   'my sleeping' (the fact that I slept)

sleep NOM 1POS

This is also true of the North Peruvian dialects of Lambayeque and Cajamarca.

4.   The first person exclusive plural pronoun is *ñuqayku,* and the 1st person exclusive possessive suffix (11POS) is *-yku.* In most areas of the South, the 1st person exclusive subject (11SU) is also *-yku.* For example,

ñuqa -yku   riqsi -yku   lʸaqta -yku   -ta

we (excl.) know   11SU   town   11POS ACC

'We (excl.) know our town.'

5.   The plural forms of the verb are formed by means of the pluralizers *-čik* and *-ku* added after the Person Subject markers. *-čik* is used when the 2nd person is involved (either as subject or object) in the person pluralized (the 1st person inclusive 12 or the 2nd person plural 22). *-ku* is used when the 2nd person is not involved in the person pluralized. These two will be referred to as the "2ful" and the "2les" plural, respectively. 3rd person objects are not marked for plural; the forms used for 3rd person plural objects are the same as those for 3rd person singular objects. Some examples are,

maqa -nki -čik   'You (pl.) hit (him)'   [Ayacucho]

hit   2SU   PL

maqa -yki -ku 'We (excl.) hit you'

hit 1-2 PL 11-2

The complete set of forms including all the plurals is rather complicated and has undergone various sorts of fusion and simplification in different areas. The following is the paradigm for Ayacucho:[35]

Ayacucho

				Object			
		1	2	3	11	12	22
s	1	——	yki	ni	——	——	yki cik
u	2	wa nki	——	nki	wa nki ku	——	——
b	3	wa n	su nki	n	wa n ku	wa n cik	su nki cik
j	33	wa n (ku)	su nki(ku)	n ku	wa n ku	wa n cik	su nki cik
e	11	——	yki ku	ni ku	——	——	yki cik
c	12	——	——	n cik	——	——	——
t	22	wa nki cik	——	nki cik	wa nki cik	——	——

1.4.2. CENTRAL AREA

1. Vowel length is contrastive.[36]

2. In a number of words the alveolar sibilant *z has been aspirated to /h/ or lost. The change seems clearly to have been

s > h > ∅

This has taken place in the following environments (examples from Huaraz):

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[35]For convenience sake, here and elsewhere in such paradigms the symbol "c" will be used for č.

[36]The historical background of this will be discussed in the final chapter.

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a) Word-initially   *zara > *hara*   'corn'

b) Intervocalically   *razu > *rahu*   'snow'

c) After a consonant   *kimza > *kima*   'three'

The change has affected different lexical items to different degrees (h or ∅ resulting) in the three different environments, according to area.

3. The 1st person possessive and verbal subject are homophonous, both having the form -:, i.e., lengthening of the preceding vowel:

puñu -:   'I sleep.'   [Huanca]

sleep 1SU

tul^yu -:   'my bone'

bone 1POS

In most areas the lengthened vowel is also stressed when word-final.

4. Verbal plurals of person of subject and object are formed by inclusion of certain modal suffixes. Depending on area and morphological environment, these can have the forms *-yā*, *-pāku*, *-rka*, *-:ri*, etc.

5. The Ablative case is *-pita* (or related forms)

6. The Locative is *-ĉaw* or some derivative thereof.

7. The Switch-Reference Same-Subject marker is -r.

8. The Durative is -ykā or derivatives.

9. The Pluperfect is formed by -ñaq plus the verb ka-, 'be' conjugated for person, or derivatives.[37] These include reductions to a single word.

wiya -naq   ka   -nki 'You had heard.' [Huaraz]
hear PLUP   be   2SU

wiya   -ña -nki   [Huanca]
hear   PLUP 2SU

10. The past tense takes the Possessive suffixes for subject, rather than the verbal subject markers. In reality, in the Central dialects, the possessive and subject person marker sets differ only in the 2nd person.

wiya   -rqa   -Yki 'You heard.' [Huaraz]
hear   PST   2POS

1.4.3. NORTH PERUVIAN AREA

1. Initial *h is lost. *hatun 'large' is atun in all four areas.

2. The 1st person subject marker is -ni.

3. The Durative is -yka.

_____
[37]This is often called the "Narrative Past" in modern grammars.

4. The Reflexive -*ku* in its use as a true reflexive is replaced by -*ka* or -*naku* depending on the area. Other uses of -*ku* remain unchanged.

> *rika*   -*ka*   -*n*   'He sees himself.'   [Cajamarca]
>
> see   REFL   3SU

5. The verbal plurals are formed by adding -*£apa* (in Cajamarca and Lambayeque)[38] or -*sapa* (or derivatives in San Martín and Amazonas) after the verbal subject markers:

> *puñu* -*ni*   -*£apa* 'We (excl.) sleep.'   [Cajamarca]
>
> sleep   1SU   PL

6. A process of Delateralization has affected *£ in dialects of all four areas. The results are [dʸ], [ĵ], and [ž] depending on the dialect.[39]

7. Stops become voiced after nasals to different degrees in different areas.

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[38]I use the symbol "£" here since the reflexes of *£ are different in this area from community to community. In Porcón (Cajamarca) it is [ž], but in Chetilla (Cajamarca) it is [dʸ] (Coombs, personal communication), while in Lambayeque both [ž] and [ĵ] are found.

[39]This does not imply that all dialects of all four areas are so affected. We will return to this point later.

1.4.4. NORTHERN

1. The affricates *x and *c have merged to a single alveopalatal affricate /č/.[40]

2. A series of aspirated stops occurs in most of the highland dialects, e.g.,

pʰiña	'angry'	[Colta]
tʰanga-	'push'	
čʰimba	'braid'	
kʰipa	'after'	

3. The possessive person markers have all been lost, leaving a few traces in frozen forms. This has had rather radical effects on the syntax, requiring more frequent use of pronouns and placing a greater burden on the switch-reference system. See Muysken (1977).

4. The distinction between the inclusive and the exclusive 1st person plural has been lost; the original inclusive form, -nčik (or related forms), now serves for both.

5. Verbal plurals are formed by adding -čik (or related forms) to 2nd persons and -kuna to 3rd persons. Some areas use the Modal

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[40]We have already seen that this was true for the Southern dialects as well.

-naku (or related forms) to pluralize 3rd persons in certain morphological environments.

<div style="margin-left:2em">

riku- *-ngi* *-čik*   'You (pl.) see   [Colta]

see   2SU   2ful

riku- *-n* *-guna*   'They see.'   [Colta]

see   3SU   2les

riku *-nahu*   *-n*   'They see.'   [Pastaza]

see   3PL   3SU

</div>

6. The Reflexive is formed with a Modal *-ri.*

<div style="margin-left:2em">

ñakča -ri *-n*   'He combs himself.'   [Colta]

comb   REFL   3SU

</div>

7. The form of the Durative is *-ku* (or related forms).

<div style="margin-left:2em">

šamu -ku *-n*   'He is coming.'   [Colta]

come   DUR   3SU

</div>

8. The Infinitive is formed adding *-na* rather than the *-y* of all other areas:

<div style="margin-left:2em">

muna -ni *miku* *-na* *-ta*   'I want to eat.'   [Pastaza]

want   1SU   eat   INF   ACC

</div>

9. The Switch-Reference Different-Subject marker (SR≠) takes the form *-kpi.*

10. The marker of 2nd person objects *-su is lost.

11. The Agentive *-q of Purpose Clauses has fused with the verb *ri- 'go' to form a new Modal meaning 'go and ....' e.g.,

*wiɫa -q   ri   -ni   'I go in order to tell.'
tell   AG   go   1SU

becomes

*wilʸa -gri -ni   'I go and tell.'   [Pastaza]

12. A series of voiced stops has arisen and is now contrastive. This is true of the North Peruvian group as well.

13. *q and *k have merged to form /k/. Amazonas and San Martín of the North Peruvian group have also undergone this change.

1.5. INTERNAL DIVERSITY OF EACH AREA.

1.5.1. SOUTH

The Southern Area may be considered to consist of the traditionally recognized dialects called Ayacucho (Departments of Huancavelica, Ayacucho, and the western part of Apurímac), Cuzco (Departments of Cuzco, Puno, eastern Apurímac, and parts of Moquegua and Arequipa), Bolivian, and Santiagueño (Province of Santiago del Estero, Argentina). The work of Stark and myself in 1972 showed the Bolivian dialects of the Department of La Paz to be distinct from both

the Cuzco dialect and the noncontiguous dialects of southern Bolivia (Departments of Cochabamba, Oruro, Chuquisaca, and Potosí). Thus it is necessary to distinguish a Northern Bolivian dialect area from the Southern Area traditionally called "Bolivian".

It is also now clear, from data I have collected from 1982 on, that the traditional binary division of Southern Peruvian dialects into "Cuzco" and "Ayacucho" is not as clear cut as it is usually portrayed. There exists a dialect area having features considered typical of both, which covers the southeast corner of the Department of Ayacucho and adjacent areas of unknown extension in the Departments of Apurímac and Arequipa. This area is in some ways quite conservative phonologically. I shall refer to it as the "Third Area" for want of a better term.

1.5.1.1. AYACUCHO

The dialect area traditionally called Ayacucho may be characterized as having, among others, the following features:

1. Conservation of syllable-final stops and /m/ of the proto-language: *ľamkay* 'work', -*pti* switch-reference different-subject marker, *učku* 'hole', *rikčari-* 'wake up,' etc.

2. The realization of *q is a post-velar fricative [χ] in all environments: *qam > [χam] 'you', *urqu > [orχo], *qacqa > [χačχa] 'rough' In some areas and in the speech of some individuals it merges with /h/, as in

[xam xamuy] (< *qam hamuy) 'You, come!'

Otherwise the contrast between the two fricatives is maintained. In such cases, the post-velar [x̣] is usually considered by most bilinguals to be a "non-Spanish" sound even though it is phonetically very close to the normal pronunciation of orthographic "j" in the Spanish of Lima and the coast. In the Spanish of the highland areas, "j" is normally the velar fricative [x] and tends to be associated with the Quechua /h/

3. In some areas initial *h is lost. In such areas *q is always preserved, so the merger mentioned in the previous point is later than this loss:

[x̣am amuy]   'You, come!'   [Coracora]

4. No aspirated or glottalized stops occur.

5. The Durative remains -čka.

6. The verbal 1st plural exclusive (11) is -niku (undoubtedly -ni (1SU) with the -ku pluralizer). The possessive 1st pl. excl. (11) is -yku. Other Southern dialects, including the one described by Santo Tomás (1560) have -yku for both the verbal and possessive 11. The "Third area" is like Ayacucho in this regard,

hamu -niku   'We (excl.) come.' [Ayacucho]
come 11SU

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wasi -*yku*   'our (excl.) house

house 11POS

7. The "2ful" pluralizer retains the form -*čik.* Phonological

changes have affected this form in other areas.

1.5.1.2. CUZCO

The so-called "Cuzco" dialects have the following features:

1. Series of aspirated and glottalized stops occur in contrast with

the normal series. The stop system is therefore:

p	t	č	k	q
pʰ	tʰ	čʰ	kʰ	qʰ
pʔ	tʔ	čʔ	kʔ	qʔ

2. Syllable-final /m/ merges with /n/, and syllable-final stops are

fricativized: p > ᵽ or χ (in suffixes), t > s, č > s, k > x, q > χ. As

a result, t and č merge with s (which is itself a merger of *s and *z)

in this context. Also p merges with q (p > q) syllable-finally in

suffixes: *-pti > -*qti*, Switch-Reference Different-Subject. (SR≠)

3. The Durative takes the forms -*ša* or -*sya.*

hamu	-*sya*	-*n*	'He is coming.'
come	DUR	3SU	

4. The modern form of the 2ful pluralizer is -*čis.*

1.5.1.3. THE THIRD AREA

This area is conservative like Ayacucho in retaining syllable-final stops and /m/, -čka for the Durative, -čik for the 2ful pluralizer. As in Ayacucho, the verbal 11 is -niku rather than -yku, and the reflex of *q is [x̣] However, like Cuzco, this area has series of aspirated and glottalized stops. *qʰ is fricativized to [x̣] thus merging with the reflex of *q. As we shall see, there is strong evidence that the aspirated and glottalized series are retentions from an early period rather than recent borrowings from the "prestige" dialect of Cuzco.

The aspirates pʰ and kʰ tend to become fricatives in some areas and in the speech of some individuals. When this happens, /pʰ/ is realized as [ɸ]; and /kʰ/ gives rise to yet a third contrastive velar fricative.[41]

[x̣am]	< *qam	'you'	[Incuyo]
[hamuy]	< *hamuy	'come'	
[xamuy]	< *kʰamuy	'chew'	

1.5.1.4. NORTHERN BOLIVIAN

The Northern dialects of Bolivia are in many respects more similar to the Cuzco dialects of Peru than they are to the Southern Bolivian dialects. Aspirated and glottalized series of stops occur. The 2ful

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[41]the other two are reflexes of *h and *q

plural is -*čis*. For the most part the syllable-final stops are preserved, as is /m/.

In the area around the town of Apollo (Dept. of La Paz), I observed several changes in process in 1972. The younger generation tends to merge /k/ and /q/ (both are [k]), and to pronounce the syllable-final stops as fricatives.

Pluralization in verbal transitions has some peculiarities not found elsewhere, as we will see later. The Genitive is -*paq* rather than -*pa* and therefore is homophonous with the Purposive.

> *runa -paq wasi -n*   'the man's house' [Apolo]
> man   GEN   house 3POS

1.5.1.5. SOUTHERN BOLIVIAN

The Southern dialects of Bolivia are different from the Cuzco dialects in a number of ways, many of which are evident in the earliest material recorded from this group in the early 1800's.

There are series of aspirated and glottal stops, and fricativization of syllable-final stops. The latter, however, has not produced the kind of phonemic mergers observed in Cuzco. The changes are:

$$p > \mathfrak{p} \text{ or } x^w$$

$$t > s$$

$$\check{c} > \check{s}$$

$$k > x$$

$$q > \chi$$

/t/ has merged with /s/, but it could be argued that the other fricatives are positional allophones of the respective stops. However x and χ seem to be in the process of merging (to [x]) syllable-finally. They have done so following the vowel /a/,

[čaxra] < *xakra 'field' [Cochabamba]

[waxra] < *waqra 'horn'

They remain distinct after /i/ and /u/, where the contrast is made noticeable because χ continues to lower these vowels to [e] and [o], respectively, while x does not:

[čixči] 'hail'

[čeχči] 'toasted ears of corn'

The Durative is found as *-ša, -sa,* and even *-sqa* in different areas, sometimes varying in the speech of a single speaker. *-ška* has been reported for a area in the south of the Department of Potosí (Burns, personal communication, 1984). The 2ful pluralizer is *-čiq* (pronounced [-čex]) or *-čaq. -čis* is also reported for certain areas.

The Spanish diminutives *-ito* and *-ita* as well as plurals in *-s*
have been borrowed into the noun morphology.[42] The *-s* plurals occur
immediately following roots ending in a vowel, as in

    wasi   *-s*   *-ni*   *-y*   'my houses'

    house PL   1POS

-kuna continues to be used after consonants:

    wasi   *-s*   *-ni*   *-yuq*   'one who has houses'

    house PL   POSR

    wasi *-yuq*   *-kuna*   'house owners'

    house POSR   PL

Whereas most other Quechua dialects relativize using participle
constructions, these dialects have developed several other strategies,
one of which involves the use of relative pronouns. These are formed
by adding *-čus* to the interrogative pronouns *ima* 'what', *pi* 'who',
maypi 'where', etc. For example,

    runa *pi*   *-ta*   *-čus* *wahya-rqa* *-ni*   *hamu* *-rqa.*

    man   who   ACC   REL   call   PST   1SU   come PST

    'The man that I called came.'

---

[42]Many historical linguists have felt this sort of borrowing into the
inflectional system of a language to be impossible. Other examples in
Quechua of this sort of borrowing are the Past Participle -du (replacing
the native -ška) in San Martín and Colombia, Agentive -dur (replacing
the native -k) in San Martín, and the diminutive -stu (< Spanish -cito)
in Pastaza.

The dialect of Santiago del Estero (Argentina) has, among others, the following characteristics:

1. No aspirated or glottalized stops are found.

2. Stops and /m/ are preserved syllable-finally. There is a tendency for č to become š in this position e.g. ušpa < *uxpa.

3. The reflex of *ł is [ž], which corresponds to the "ll" of the local variety of Spanish.[43] This is devoiced to [š] preceding a voiced consonant: *ałpa 'land' is pronounced [ašpa].

4. *h is lost word-initially

5. *w is lost between like vowels and from the suffixes *-wa 1OB and *-wan INST. This causes violation of the general principle of Quechua phonology which excludes vowel clusters. Some examples are:

qaa-,	'look'	< *qawa-
qee-	'twist'	< *qiwi-
qari-an	'with a man'	< *qari-wan
maqa-a-n	'He hits me.'	< *maqa-wa-n.

---

[43]Several different varieties of Argentine Spanish may be distinguished on the basis of their reflexes of "ll" and "y". In the area of Buenos Aires, both are pronounced (merged) as [ž]. In the north in Misiones, "y" is [ž], but "ll" remains [lʸ]. To the west in Santiago, "y" remains [y], but "ll" is [ž].

6. The Past tense (*-rqa) loses its /q/ to become -ra.
Nevertheless it continues to have the property of lowering the high
vowels i and u to e and o respectively. This may be considered a
morphophonemic effect: e and o are probably separate phonemes due to
Spanish loans and other factors which have introduced non-predictable
[e]'s and [o]'s into the language.

7. The Durative is -ška, while the 2ful pluralizer is -čis.

1.5.1.7. VERBAL PLURALIZERS

One of the more difficult topics in the morphology of any
Southern dialect, as we have seen, is that of the pluralization of subject
and object markers in the verb. It is clear that the basis of this
system is the addition of two pluralizers, -čik and -ku, where the
former is used for plurals in which the 2nd person is involved, while
the later pluralizes non-2nd persons. Unfortunately none of the early
colonial sources, even González Holguín, gives a complete paradigm. On
the basis of what is said, however, it is clear that the system involved
these same two pluralizers. Several sources, including González
Holguín, give forms in which both -čik and -ku appear:

muna -wa   -nki -čik -ku   'You (22) love us (11).'
love 1OB 2SU 2FUL 2LES   [GH 1852: 165]

What is not clear is whether -čik was restricted to 2ful plurals.
It may be that the system was not yet fixed at the time of the Spanish

Conquest, and there may have been a good deal of variation from place to place. Melgar (1691, f. 17v) comments,

"Es tanta la variedad que he visto en enseñar transiciones, que pudiera dezir, sin nota de arrojo, que ay tantas opiniones, como autores."

Later regarding 2less plurals he says (f. 21),

"No siempre, ni en todas partes, sino a vezes, y en algunas Provincias, en lugar del nominativo de plural, que se ha de expresar en primera, y segunda transic. y del acusat. en tercera transic. vsan de la particula cu pospuestas a las oraciones."

He then gives examples illustrating the following:

-yki	-ku			11-2
-yki	-čik	-ku		11-22
-su	-nki	-ku		33-2
-su	-nki	-čik	-ku	33-22
-wa	-nki	-ku		2-11
-wa	-nki	-čik	-ku	22-11

No present-day dialect allows forms in which both -čis and -ku co-occur. Grigorief (1935) gives extensive paradigms, supposedly for the dialect of Santiago del Estero, which contain forms with both. On

closer examination it is clear that all of these forms are copied from González Holguín. Middendorf (1890) gives such forms for Cuzco, including some not actually found in González Holguín. It is not clear whether any of these might have been from his informants rather than colonial sources. He did base a good deal of his grammars on early works. Cerrón-Palomino (1987: 277) also reports such forms for modern-day Cuzco. This is really surprising, since even a cursory examination of any of the numerous modern grammars would show that no such forms exist. I can only speculate that he copied them from Middendorf, assuming that the information there was current.

What we find for present-day Cuzco is the following:

Cuzco

		1	2	O b j e c t 3	11	12	22
S	1	——	*yki*	*ni*	——	——	*yki cis*
u	2	wa *nki*	——	*nki*	wa *nki ku*	——	——
b	3	wa *n*	*su nki*	*n*	wa *n* *ku*	wa *n cis*	*su nki cis*
j	33	wa *n* *ku*	*su nki ku*	*n* *ku*	wa *n* *ku*	wa *n cis*	*su nki cis*
e	11	——	*yki ku*	*y* *ku*	——	——	*yki cis*
c	12	——	——	*n* *cis*	——	——	——
t	22	wa *nki cis*	——	*nki cis*	wa *nki cis*	——	——

This paradigm is obviously very similar to that for Ayacucho given above. The difference concerns whether *-čik* or *-ku* is used when both subject and object are pluralized. Independent pronouns are often used to avoid ambiguity, something which is found even in the earliest colonial grammars. In fact the Cuzco and Ayacucho paradigms may really not be different at all, since there is a certain amount of inconsistency among the various sources for both areas with regard to

the 11-22 and 22-11 transitions. Informants from both areas tend to vacillate when one attempts to elicit these forms. The presence of free pronouns in the sentence seems to have an effect on the result.

The paradigm found in the Northern Bolivian area is different in yet another way:

Apolo

		1		2	3		11		12	22	
					O	b	j	e	t		
S	1	———		yki	ni		———		———	yki	cis
u	2	wa	nki	———	nki		wa nki	cis	———	———	
b	3	wa	n	su nki	n		wa n	ku	wa n cis	su nki	cis
j	33	wa	n (ku)	su nki cis	n	ku	wa n	ku	wa n cis	su nki	cis
e	11	———		yki cis	y	ku	———		———	yki	cis
t	12	———		———	n	cis	———		———	———	
	22	wa	nki cis	———	nki cis		wa nki	cis	———	———	

Here the function of -čis is obviously not restricted to 2ful plurals *per se.* It is also found in transitions involving 2nd person, even when it is not pluralized, i.e., 2-11, 33-2, and 11-2.

The paradigm for the Southern Bolivian area of Cochabamba shows that a good deal of fusion and analogical extension has taken place. There is probably no longer any solid ground for recognizing a separate morpheme -*ku*, it having fused to form the now inseparable 1st person exclusive -*yku* and the 3rd person plural -*nku*.

<div align="center">Cochabamba</div>

		O b j e t 1	2	3	11	12	22
S	1	——	yki	ni	——	——	yki ceh
u	2	wa nki	——	nki	wa yku	——	——
b	3	wa n	su nki	n	wa yku	wa nceh	su nki ceh
j	33	wa nku	su nku	nku	wa yku	wa nceh	su nki ceh
e	11	——	yku	yku	——	——	yki ceh
t	12	——	——	nceh	——	——	——
	22	wa nki ceh	——	nki ceh	wa yku	——	——

The forms for Chuquisaca show an even wider distribution of *-su* as a marker of 2nd person object:

<div align="center">Sucre</div>

		O b j e t o 1	2	3	11	12	22
S	1	——	yki	ni	——	——	yki ceh
u	2	wa nki	——	nki	wa yku	——	——
j	3	wa n	su nki	n	wa yku	wa nceh	su nki ceh
e	33	wa nku	su nku	nku	wa yku	wa nceh	su nki ceh
t	11	——	su yku	yku	——	——	su yku
o	12	——	——	nceh	——	——	——
	22	wa nki ceh	——	nki ceh	wa yku	——	——

The distribution of *-su* is even less restricted in the paradigm for Potosí:

<div align="center">Potosí</div>

		O b j e t 1	2	3	11	12	22
S	1	——	(su)yki	ni	——	——	(su)yki ceh
u	2	wa nki	——	nki	wa yku	——	——
b	3	wa n	su nki	n	wa yku	wa nceh	su nki ceh
j	33	wa nku	su nku	nku	wa yku	wa nceh	su nku ceh
e	11	——	su yku	yku	——	——	su yku ceh
t	12	——	——	nceh	——	——	——
	22	wa nki ceh	——	nki ceh	wa yku	——	——

The most extensive distribution of *-su* is found in the paradigm

for Santiago del Estero (data from Bravo, 1985):

Santiago del Estero

		1	2	O b j e t 3	11	12	22
s	1	——	*(su)yki/su ni*	*ni*	——	——	*(su)yki cis*
u	2	*wa nki*	——	*nki*	*wa yku*	——	——
b	3	*wa n*	*su nki*	*n*	*wa yku*	*wa ncis*	*su nki cis*
j	33	*wa nku*	*su nku*	*nku*	*wa yku*	*wa ncis*	*su nki cis*
e	11	——	*su yku*	*yku*	——	——	*(su)yku cis*
t	12	——	——	*ncis*	——	——	——
	22	*wa nki cis*	——	*nki cis*	*wa yku*	——	——

1.5.2. CENTRAL

We will now examine some of the features that divide the most

fragmented area of all, that of the Central dialects.

1.5.2.1. ASPIRATION AND LOSS OF S

The change s > h > Ø is one of the most characteristic of the

Central area, affecting most dialects to some degree or another. As we

saw earlier, it can apply in three different environments: word-initial,

between vowels, and after a consonant.

The most widespread version is s > h word-initially. Though it

has occurred in the vast majority of the Central dialects, it has nowhere

gone to completion; and a fair portion of the lexicon remains unaffected

(see Parker 1971). The majority of the list of roots undergoing the

change remains constant over most of the area, but in Yauyos even this

does not hold (see Taylor 1984). Even outside the Central area there

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are s : h correspondences: Southern dialects have *huk* 'one' and *hurqu-* 'take out' (or derivatives of these), while the North Peruvian dialects show *suk* and *surqu-* respectively. Early colonial sources mention *suk* as well as *huk*, but I know of no Southern dialect which presently has *suk*.

The most troubling data for making sense of this change, however, are those from the Jauja dialect of Huanca. Here the complete list of roots undergoing the change have /s/, including *suk* and *sulhu-* (the local form of *surqu-*). One even finds *sampi* for 'medicine', which is *hampi* in all other areas. Thus, imbedded in the area of innovation, one encounters what appears to be the most conservative dialect of all with regard to this change. Parker (1971) suggested that this might be a case of hypercorrection.

The second phase of the change, namely h > Ø, occurs word-initially only in the northern part of the Department of Ancash.

The change applies in the intervocalic and post-consonantal positions in different areas according to the particular root, so a separate map would need to be prepared for each root. In general the Huanca dialects to the south, the Huallaga dialects on the east side, and the northernmost dialects (in the Department of Ancash) are not affected.

1.5.2.2. ABLATIVE CASE

The most typical form of the Ablative found in the Central dialects
is -*pita*. Other occurring forms are -*pi?* and -*pi?ta* (in the southern
Huanca area), -*piq* in Ancash, -*paq* in southern Yauyos, and -*piq(ta)* in
Pacaraos (Huaral, Department of Lima). More recently -*pik* (Corongo,
Dept. of Ancash),[44] and -*pikta* (Santa Cruz de Andamarca, Huaral,
Dept. of Lima)[45] have turned up.

1.5.2.3. LOCATIVE CASE

Various of the forms of the Locative Case in the Central dialects
are derived from -*čaw*. Some of these are -*čū*, -*čuy*, -*ču*, -*čō*, and
even -*čuq*, probably as a reinterpretation of the long o: as a sequence
/uq/. -*pi* (like the non-Central dialects) and -*pa* occur in southern
Yauyos.

VERBAL PLURALS

In general, the Central dialects mark verb plurals with a series of
Modals. In the northern part of this dialect area (Ancash and
northeastern Huánuco Depts.) the form is -*yā*. In the rest of the area
use is made of the Modals -*pāku*, -*rka*, and -:*ri*.[46] Over most of the
area these three are in fact morphologically conditioned allomorphs:

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[44]Reported to me by Dan Heinz, personal communication, 1988.

[45]In my own field work with the last living speaker.

[46]The initial colon indicates that the preceding vowel is lengthened.

which of the three occurs depends on what other Modals are present.
The actual conditioning environment varies somewhat from area to area,
and some dialects (such as in Yauyos) do not have all three. Note how
the pluralizer changes in the following Huanca examples (Cerrón-
Palomino 1976: 171):

wilʸa	*-pāku*	*šu-nki*	'They tell you.'
tell	PL	3-2	

wilʸa	*-yka*	*-lkā*	*-šu-nki*	'They are telling you.'
tell	DUR	PL	3-2	

1.5.2.5. SWITCH-REFERENCE SAME SUBJECT-MARKER

All the Central dialects, with the exception of those of southern
Yauyos have *-r* (or derivatives) as a switch-reference marker of same
subject. A number of areas also have *-špa*, which is the form found in
the other three major dialect areas.

1.5.2.6. -NQA NOMINALIZER

In the northwest corner of Pasco Department the preferred
nominalizer is *-nqa* rather than *-šqa*.

musya-:	*ka*	*-nqa*	*-yki*	*-ta*	[Yanahuanca]
know 1SU	be	NOM	2POS	ACC	
'I know it was you.'					

In the Callejón de Huaylas area of Ancash Department both -šqa
and -nqa are reported to occur with slightly different function (Helen
Larsen, personal communication). The distribution and function of the
-nqa participle remains a topic for further study.

1.5.2.7. -PAQ FUTURE

In an area that stretches at least from western Ancash
Department through to eastern Huánuco, a suffix -paq may be added to
any future form with no change in meaning that has been detected as
yet. Since no special form exists for 2nd person future (the present is
used instead), this suffix can be used to disambiguate present from
future meaning with a 2nd person subject. The full geographic extent
of the occurrence of this suffix has yet to be determined. Examples
are:

> šamu -nki   'You come/will come.'
>
> come 2SU
>
> šamu -nki -paq 'You will come.'
>
> come 2SU   FUT

1.5.2.8. OTHER CHANGES

/q/ is dropped from the Past -rqa and the Past Participle -šqa to
give -ra and -ša in some areas. Interestingly, when this occurs these

suffixes continue to shorten preceding long vowels as though the /q/ were still present.[47]

In a number of areas the compound tenses are reduced giving rise to new tense suffixes. The perfect past (formed by -šqa plus the verb ka- 'be') and the pluperfect (formed by -ñaq[48] plus ka-) are changed thus:

miku	-šqa	ka	-nki >	miku-ška-nki	'You had eaten.'
eat	PPT	be	2SU		

miku	-ñaq	ka	-nki >	miku-ña-nki	'You had eaten.'
eat	PLUP	be	2SU		

1.5.2.9. OVERLAPPING AREAS

Several changes in the Central dialects overlap to produce interesting patterns. We will now look at some of these.

1.5.2.9.1. Reflexes of *c and *x

Throughout the Department of Junín (including the Huanca area), the reflexes of the proto-phonemes *c and *x are an alveopalatal affricate [č] and a retroflex alveopalatal affricate [ĉ] respectively. In

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[47]The dialects having long vowels do not allow these to occur in closed syllables. Therefore if a suffix of the form -C or -CCV is added to a stem ending in a long vowel, the vowel is shortened. For more details see Weber and Landerman (1985).

[48]or a derivative thereof.

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the other departments that make up the Central area, a rather complicated pattern appears. The reflexes of *c are an alveopalatal affricate [č], an alveolar affricate [¢], or an alveolar sibilant [s].[49] The reflexes of *x are either the alveopalatal affricate [č] or the retroflex alveopalatal affricate [ĉ].

This means that theoretically six different combinations of reflexes are possible:

	*c	*x
1.	č	ĉ
2.	¢	ĉ
3.	s	ĉ
4.	č	č
5.	¢	č
6.	s	č

In fact all six possible dialects actually exist: [č ĉ] Huayllay (Dept. of Pasco), [¢ ĉ] Yanahuanca (Dept. of Pasco), [s ĉ] Pacaraos (Dept. of Lima), [č č] Llacón (Dept. of Huánuco), [¢ č] La Unión (Dept. of Huánuco), and [s č] Llata (Dept. of Huánuco).[50] The following map shows their distribution:

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[49]In fact yet another reflex [ĉ] is also found in the Waycha subdialects of Huanca. It is the result of a quite different process than that considered here.

[50]The general geographic distribution of the reflexes of *c and *x was shown in maps 1 and 2 of Torero (1964). What was displayed there is generally correct though there are some errors. The maps given here are based on my own field work carried out from 1970 on.

Reflexes of
Proto-Quechua *C and *X

	*X	*C
☐ (white)	(ĉ	č)
▦ (shaded)	(ĉ	¢)
▤ (horizontal lines)	(ĉ	s)
▨ (diagonal lines)	(č	č) merged
▥ (vertical lines)	(č	¢)
▤ (horizontal in box)	(č	s)
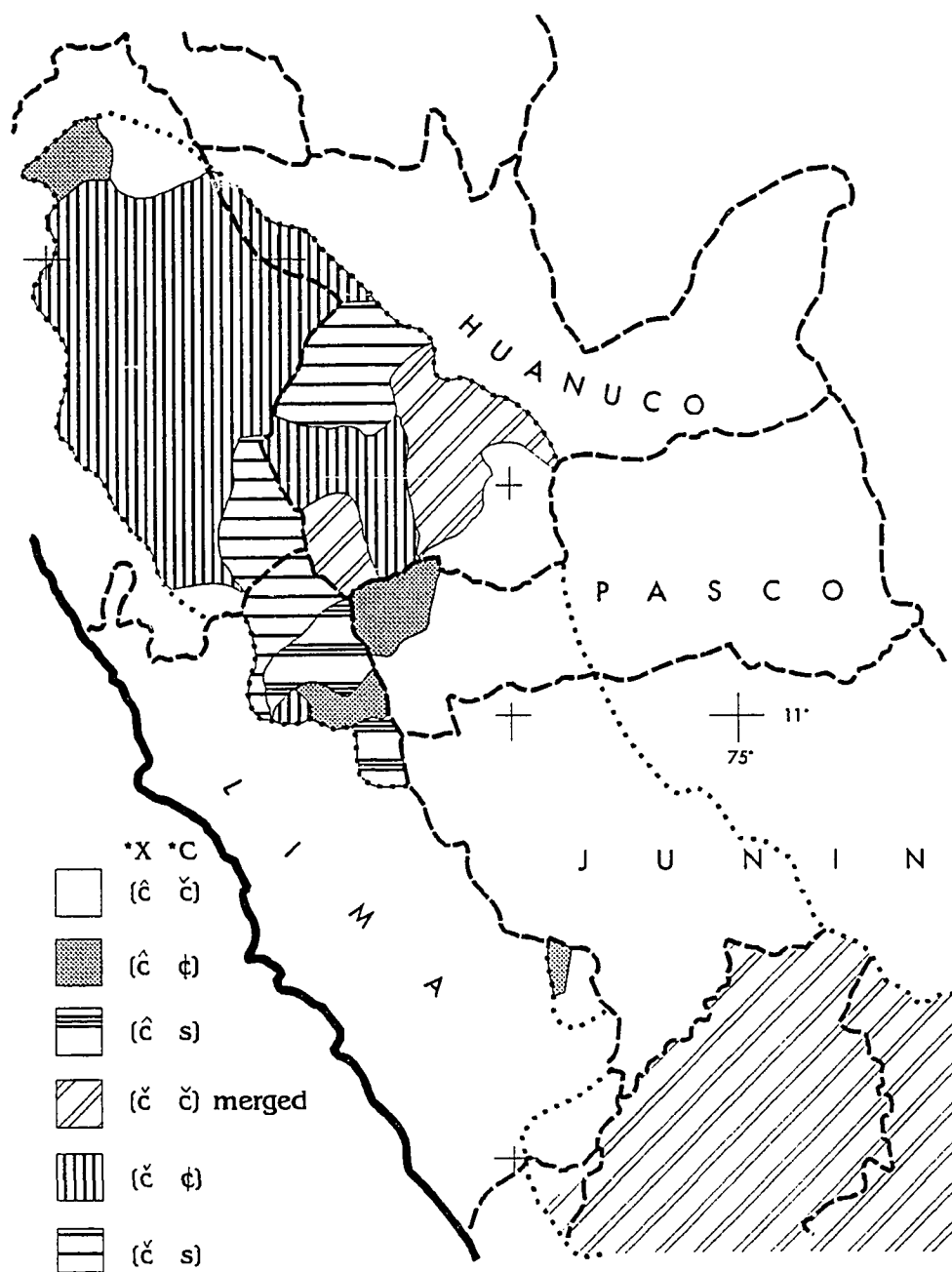
Map 16

Careful examination of this complicated pattern leads to the following observations:

1. Dialects with *c = č are scattered.

2. Dialects with *x = ĉ are scattered.

3. Dialects with *x = č are contiguous.

4. Dialects with *c = s always border on dialects with *c = ¢.

All of these facts can be easily explained if one assumes the following:

1. The original reflexes were *c = č and *x = ĉ.

2. Innovations č > ¢ and ĉ > č occurred in partially overlapping areas.

3. An innovation ¢ > s occurred independently in certain areas.

Displaying these innovations and their respective areas on a map, we can see how this rather complicated situation could have arisen by the interaction of quite simple changes:

Changes Affecting
Proto-Quechua *C and *X
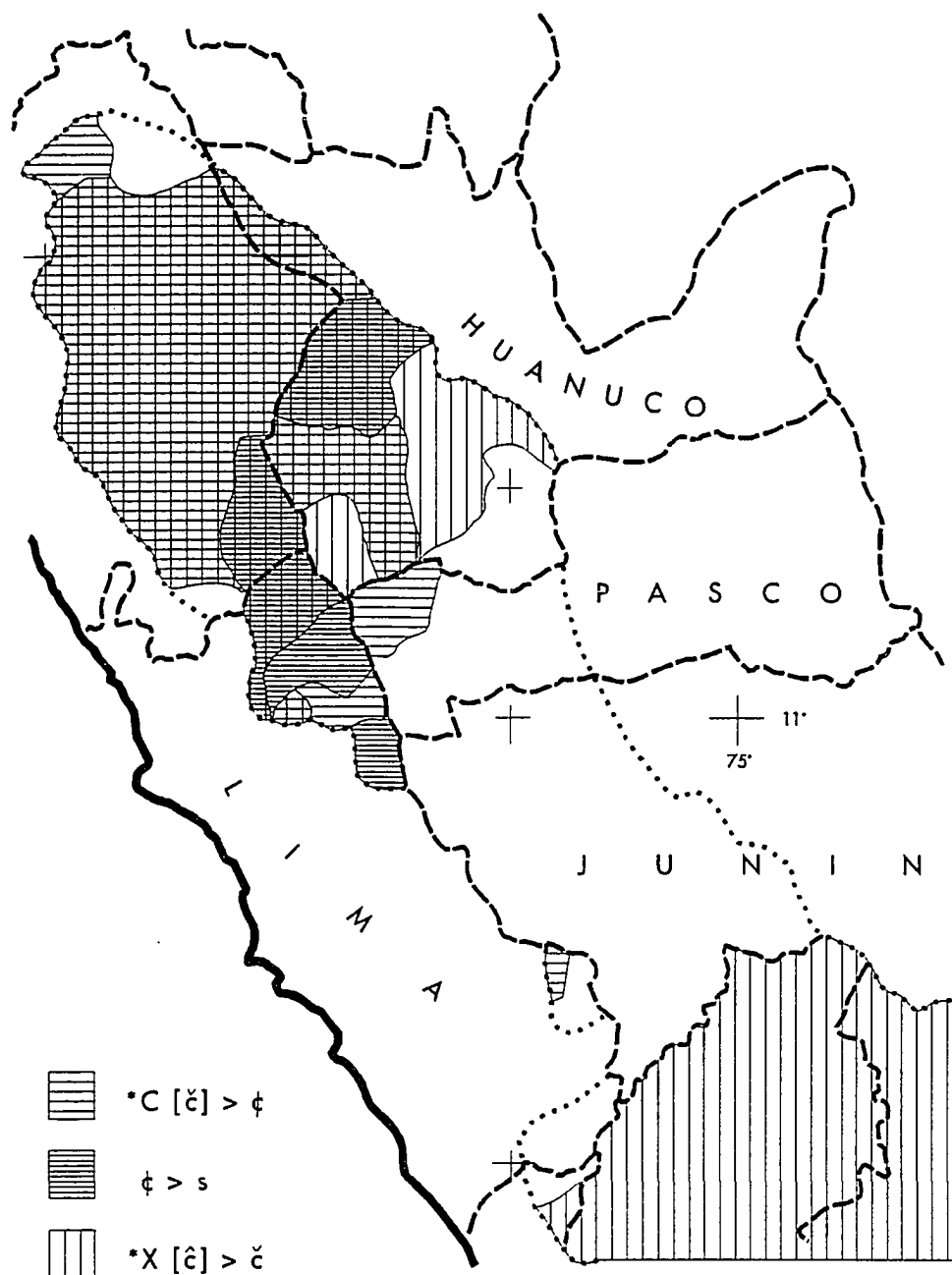
Map 17

The fact that no [¢ ¢] dialect occurs is easily explained by
assuming that č > ¢ occurred earlier than ĉ > č.

1.5.2.9.2. Depalatalization of /lʸ/ and /ñ/

A large area in the center of the Central dialects has been
affected by the depalatalization of /lʸ/ and /ñ/, i.e., lʸ > l and ñ > n.
Nowhere are these changes complete in the sense that all occurrences of
/lʸ/ and /ñ/ have been eliminated. They seem to have proceeded
farthest in the Department of Junín to the north of the Huanca area
(which is not affected at all).

Depalatalization of /ñ/ has occurred in all but the northernmost
part of the Department of Ancash and the eastern part of the
Department of Huánuco (where it seems to be presently entering).
/lʸ/, on the other hand, is affected only in the southmost corner of
Ancash and the southwestern part of Huánuco. Because of this
distribution, Parker (1971) considered them a single process which
applied first to /ñ/. There is, however, one area which has undergone
lʸ > l but not ñ > n, namely Pacaraos and Santa Cruz de Andamarca
(Prov. of Huaral, Dept. of Lima). This suggests that they might best
be considered independent overlapping innovations.

1.5.2.9.3. Monophthongization

In various areas of the Department of Ancash the following
changes have taken place or are underway:

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1. ay > ē

2. aw > ō

3. uy > ī

(1) occurs only across morpheme boundaries in some areas, e.g., *hayta-y* > [haytē] 'to kick', while in others it is phonologically regular, as in *hayta-y* > [hētē]. (3) occurs only across morpheme boundaries in most areas, e.g., *šuyšu-y* > [šuyšī] 'to filter'. In the northernmost part of the Department, namely in Corongo this change applies even within roots, for example, [šīšī] 'to filter' (Dan Heinz, personal communication).

(2) occurs only in roots, and affects only certain roots in most areas. Where it seems to have gone furthest to completion is again in the Corongo area (Dan Heinz, personal communication).

1.5.2.10 HUANCA

One area that is clearly set off linguistically from the rest of the Central dialects is the Huanca region located in the Provinces of Jauja, Concepción, and Huancayo in the south of Junín Department. Among the features which distinguish this group from other Central dialects are:

1. r > l   e.g., *likla* < *rikra* 'arm'.

2. The 1-2 transition marker is -*k* rather than -*q*, as in

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lika   *-k*   'I see you.'

see   1-2

3. The verbal pluralizer (Modal) *-lkā* (< *-rkā) is placed after the Durative *-ykā* rather than before it. For example:

   miku   *-rka*   *-yka*   *-n*   'They are eating' [Huariaca, PASCO]

   miku   *-yka*   *-lka*   *-n*   [Huancayo, JUNIN]

The Huanca dialects fall into three subgroups which Cerrón-Palomino has called Jauja, Waycha, and Waylla. The Jauja subgroup is characterized by the change q > h which results in the merger of *q and *h. *q becomes glottal stop [ʔ] in the other two subgroups, and is then lost word-initially. A complex pattern has arisen due to the loss of /ʔ/, depending on the area and the phonological context. In some contexts the loss is accompanied by compensatory lengthening, which gives rise to new instances of long vowels.

   aɬqu > *alʸu*   'dog' [Waylla]

   waqra > *wāla*   'horn'.

The Waycha subgroup, all of whose varieties are near extinction, is distinguished from Waylla by two changes (among others), delateralization lʸ > č and retroflexion č > ĉ. See Cerrón-Palomino (1972) for details. Some examples are *čūču* < *cuqɬu* 'corn', *aču* < *aɬqu* 'dog', and *ĉaki* is both 'dry' (< *caki) and 'leg' (< *xaki).

1.5.3. NORTH PERUVIAN

The four subgroups of the North Peruvian area are geographically non-contiguous and fairly distinct one from the other. Each of the four shows only relatively minor internal differentiation. With regard to subgrouping among the four, Lambayeque and Cajamarca obviously are closer to each other than to the others; the same is true of Chachapoyas and San Martín.

1.5.3.1. CAJAMARCA

The dialects of the Cajamarca area are in general highly conservative phonologically. The two subgroups of Porcón and Chetilla are mainly distinguished by the reflexes of *ĺ. It undoubtedly was originally the alveopalatal lateral [lʸ]. In Chetilla the modern reflex is [dʸ].[51] In Porcón it is [ž], but there is evidence that it was earlier like that of Chetilla and underwent a series of changes, dʸ > ǰ > ž.

1.5.3.2. LAMBAYEQUE

Dialects of the Lambayeque area are in many ways similar to those of Cajamarca; but as Torero has pointed out, a few of their features are reminiscent of the Central dialects. Examples include (1) the use of -r as the switch-reference same-subject marker, (2) the loss of initial *z in a series of roots which underwent the s > h >∅ change

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[51]Quesada reports the reflex as [ǰ] in his various works. This is simply incorrect, as was pointed out to me by David Coombs (personal communication).

dialects, and (3) the existence of several verb roots that appear to have previously contained long vowels.

Internal differentiation is largely based on the reflexes of *q (which can be [g] or [h]) or on a process of voicing of stops in various environments, mostly after the glides /w/ and /y/.

1.5.3.3. AMAZONAS

The dialects of the Amazonas area are characterized by a complicated series of phonological changes consisting of vowel dropping, monophthongization, and assimilation of voicing and point of articulation. The overall effect is so radical that it is difficult at first to believe that the language being spoken has anything to do with Quechua. For example I once heard what would have originally been
kawa-šu-na-yki-pak 'in order for him to see you' reduced to something like [košneba].

There is evidence that these changes are not merely speech-speed phenomena, for the reduced forms occur even in slow deliberate speech, such as dictation. This would indicate that a complicated set morphophonemic rules has arisen. The phonology of the dialects of this area certainly deserves more careful investigation.

These dialects have undergone a change q > k thus merging *q and *k (a change shared with San Martín). Internal differentiation includes, among other things different degrees of the monophthongization mentioned above and the reflexes of *ḷ. Some areas

have [ĵ] which corresponds to the pronunciation of "ll" in the local

variety of Spanish. Other areas have the alveopalatal lateral [lʸ], which

they consider to be a non-Spanish sound and attempt to transcribe as

"ly" or "li".[52]

1.5.3.4. SAN MARTIN

Like the dialects of Amazonas, those of the San Martín area have

undergone the change q > k (merging *q and *k). In addition, they

have merged *x and *c through a change ĉ > č . The Reflexive Modal

is -naku,[53] which in the Southern and Central areas is the Reciprocal.

Little internal diversity has been observed so far, but one feature

which does vary is the switch-reference different-subject marker. It is

found as the expected -pti but also as -kti and even -kpi.

1.5.4. NORTHERN

A series of changes has resulted in the fragmentation of the

Northern dialects. Among these are:

1. Voicing: Stops become voiced after nasals. Spanish loans and

other factors have resulted in the voiced series being contrastive.

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[52]The same problem arises in Cajamarca, according to Coombs (personal
communication). There the local Spanish norm for "ll" is [lʸ], and it is
difficult to convince local Quechua speakers that there is any relation
between that sound and their [dʸ] as required by the Official
Orthography of Quechua.

[53]Coombs *et al.* (1976) are in error when they report that the reflexive
is -ku as in the Southern and Central dialects..

2. The reflex of *ʎ is [ž] in the areas where the local Spanish pronunciation of "ll" is [ž]. Elsewhere it is [lʸ].

3. In the northern highlands and in the jungle areas, /w/ becomes the bilabial fricative [ɓ] before /i/ and *ʎ is realized as /l/ in the same environment.[54] (w > ɓ /_i and lʸ > l /_i).

4. Lenition: In certain dialects in the center of the Northern area, especially the Salasaca region, /p, t, k/ become /b, d, g/ in suffixes. This process goes even further in the jungle dialect of Tena where p > w, t > r, and k > ∅ in the same environment, for example,

runa -una -ra < *runa-kuna-ta 'to the men'
man PL ACC

5. Final consonants are lost especially from suffixes in some areas:

runa -pa < *runa-paq 'for the man'
man PURP

6. In an area south of Quito /a/ is raised to /u/ or /i/ in closed syllables under certain circumstances, especially in suffixes:

runa -puk 'for the man'
man PURP

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[54]The latter change also affects Inga of Colombia.

warmi -*munta*   < *warmi-manta   'from the woman'

woman ABL

2. PREVIOUS CLASSIFICATIONS

As was mentioned in the previous chapter, most colonial works on Quechua tended to downplay the differences between dialects. The language was often referred to as "la lengua general." The additional specification "del Inca" was frequently added, since Aymara was also considered to be a "lengua general." All writers of the period agree that the language of Cuzco, the imperial capital, was considered the model form of speech. Garcilaso de la Vega informs us that the imperial administration went to considerable lengths to insure that all local officials were proficient in this dialect.[1] As we saw in the preceding chapter, deviations from the Cuzco norm were usually ascribed to another language or "modo de usar" called "Chinchaysuyo" located in areas north of what has here been called the Southern Area.[2]

A succession of colonial works give increasingly longer lists of features which are called typical of "Chinchaysuyo." An examination of these in the light of our present-day knowledge of modern dialects

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[1]He in fact quotes from the manuscript of Blas Valera's *Historia* (ninth chapter of the Second Book) as follows:

> "Los Reyes Incas, dende su antigüedad, luego que sujetaba cualquiera reino o provincia, entre otras cosas para la utilidad de los vasallos se les ordenaba, era mandarles que aprendiesen la lengua cortesana de Cozco y que la enseñasen a sus hijos. Y por que no saliese vano lo que mandaban, les daban indios naturales de Cozco que les enseñasen la lengua y las costumbres de la corte." – *Comentarios Reales*, Book Seven, Chapter III.

[2]Use of the term "lengua" in this regard by colonial authors probably did not mean "language" in the sense of the distinction of separate language versus dialect.

shows that none of these lists is a characterization of any one dialect in particular. Rather they are merely tabulations of non-Cuzco features observed in a whole range of dialects. All, however, contain features which are found only in the dialects of the Central Area.

Such lists are found in the 1584 *Doctrina Christiana, y catecismo* (Tercer Concilio Provincial), the 1586 *Vocabulario* (Anon. 1586), Huerta (1616), Figueredo's reedition of Torres Rubio (1700), the 1754 reedition of Figueredo by an anonymous author (Anon. 1754), etc.

2.1. HERVAS

The first attempt to enumerate Quechua dialects, and therefore to "classify" them in the broadest sense of the word, is found in the *Catálogo de las lenguas conocidas* of Hervás y Panduro (1800). Attributing his information to an Abbot Camaño with whom he maintained correspondence, he specifies five dialects: quiteño, lamano,[3] chinchaysuyo, cuzcoano, and tucumano or calchaquí.

No basis for or commentary on this breakdown of dialects is given, but the terminology reveals that geographical criteria are involved. We know nothing of the linguistic experience of Abbot Camaño and so can only speculate on the extent of his personal knowledge of different dialects and how this was taken into account. It is interesting

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[3] In fact "lamano", which undoubtedly refers to the Lamas area of San Martín, is not actually mentioned in the main text but rather only in the marginal summary. Probably some sort of editorial oversight omitted lamano in the body of the text, where only the other four dialects are referred to.

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to note, however, that he clearly uses the term "chinchaysuyo" to refer to a specific dialect area which did not include dialects of the Quito or San Martín areas. Also noteworthy is the fact that he does not include "lamano" in the Quito dialect as some later writers have done.

It is interesting to speculate that, if Camaño did have extensive experience with different dialects, perhaps he intended "quiteño" to apply to the what I have called here the Northern Area. His "chinchaysuyo" would then correspond to the Central Area, and "cuzcoano" would be his term for the Southern Area. His separation of "lamano" from the rest could be at least a partial acknowledgement of the separate nature of the North Peruvian Area. The dialects of Argentina may well have been different enough linguistically as well as ethnohistorically by his time for him to distinguish them as a separate "tucumano" group.

This "classification", published by Hervás, proved to be influential, being frequently repeated (usually without citation) by subsequent authors right into the second half of this century. Thus Adelung in his *Übersicht aller bekannten Sprachen und ihrer Dialeckte* (1820) enumerates the same five dialects without change even in the names given.

Rivet in the introduction to his monumental *Bibliographie des langues aymará et kičua* (1951) divides the tribes he characterizes as Quechua speaking into five geographic groups which he called "inka", "činčaysuyo", "kiteño", "bolivien", and "argentin" (Introduction, p. xiii).

This is obviously the division of Hervás slightly modified: "lamano" has been eliminated and "bolivien" added; "cuzcoano" and "tucumano" have been rebaptized as "inka" and argentin" respectively. The author goes on to specify the individual tribes he considers to belong to each group, from which it becomes clear that his criteria for grouping are purely geographic rather than linguistic. Thus we find "huanka" included in his Inka group, while "kasamarka", "čačapuya", and "lamaño" (sic) are included in his Chinchaysuyo group.[4]

Rather surprisingly, Rivet follows this geographical division with a list of what he calls "Les principaux dialectes du Kičua," which differs significantly from the one he has just given. This new list consists of: 1. Kiteño, 2. Lamaño, 3. Činčaysuyu (with subdialects Huari, Huánuco, Cajamarca), 4. Huancayo, 5. Ayacucho, 6. Kuskeño, 7. Bolivien, and 8. Tukumano (or Argentin). This is even more obviously based on Hervás with "lamano" reappearing as a separate group and "tucumano" again being used to refer to dialects of Argentina. In fact this list of dialects is just the five of Hervás with Bolivian, Huancayo, and Ayacucho added. The later two could very well have been included based on the columns labeled "Ayacucho" and "Junín" in the *Vocabulario Políglota Incaico*

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[4]The fact that he includes "lamano" in Chinchaysuyo would seem to explain its elimination from the list of five geographical areas. However, see below.

(Misioneros Franciscanos de los Colegios de Propaganda Fide del Perú)[5] of 1905. Thus Rivet ends up distinguishing as separate dialects "Lamaño" (which he had included in Chinchaysuyo) and "Huancayo" (which he had included in his Inka group). Perhaps he did not realize that "Huanca" and "Huancayo" refer to the same area. He again includes Cajamarca in the Chinchaysuyo group, which Hervás (or more accurately, Camaño) did not do. In any event it is ironic that Rivet's characterization of Quechua dialects in 1951 is probably less true to the linguistic facts than was that of Hervás (Camaño) of the later 1700's.

Antonio Tovar in his *Catálogo de las Lenguas de América del Sur* (1961) is even further from the truth. He characterizes the dialects as being "no muy diferenciados" and states that those of the Ayacucho area seem to be the most divergent. He then goes on to give a geographic characterization which is merely a close paraphrase (without citation) of Rivet's.

2.2 HENGVART

The Redeptorist priest Eugenio Hengvart gives a characterization and classification of Quechua dialects as an appendix to his 1907 grammar of Ayacucho Quechua. In it he shows considerable knowledge of the dialect situation, a good deal of it probably first hand. He

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[5]This work contains the Quechua equivalents in four different dialects of some 12,000 Spanish terms. The four dialects in question are labeled Cuzco, Ayacucho, Junín, and Ancash. The introduction makes clear, however, that the "Junín" column represents the Huanca dialect of the Province of Huancayo, while the "Ancash" column is from the Province of Huari in that Department.

divides the dialects into three "families," North, Center, and South. These correspond quite closely to the areas I have called Northern, Central, and Southern here. The only North Peruvian dialect he deals with is San Martín (based on his reading of Navarro's grammar of "Ucayali"). He considers this to be a member of the Northern "family" but says it is "un término medio entre el ecuatoriano y el ayacuchano."

He cites a good number of the linguistic features of each area, so it is clear that his classification is not merely geographic. Even more indicative of this is the fact that he states that the "Center" dialects are much more different from the contiguous South dialects than are those of the North. It is surprising that Rivet did not pay more attention to the work of Hengvart when formulating his own classification, since, according to his *Bibliographie*, he owned a copy.

2.3. PARKER 1963

The first attempt to provide a truly genetic classification of Quechua dialects based exclusively on linguistic criteria was Parker's "Clasificación Genética de los Dialectos Quechuas" (1963). In this work his main emphasis is on the establishment of two main groups of dialects which he calls A and B. Quechua A is specified as consisting of Ayacucho, Cuzco, Bolivian, and a subgroup he calls Ecuador-Ucayali. The latter is made up of the dialects of Ecuador and the San Martín variety called "Ucayali" by Navarro (1903). Quechua B consists of the dialects of the Departments of Ancash, Huánuco, Pasco, and Junín, i. e., the Central area.

Parker asserts that there is mutual intelligibility within either of these two groups but not between them, though he cites no empirical evidence for this claim. He lists the following characteristics of Quechua B as those which distinguish it from A (I have added some typical A forms for comparison):

		B	A
1.	Locative	-čo: (< *-xaw)[6]	-pi
2.	Ablative	-pita or -peq	-manta
3.	Simulative	-no: (< *-ñaw)	hina
4.	Limitative	-yaq	-kama
5.	1st person	-V́ (1POS, 1SU)[7]	-y, -ni
6.	Perfect	-ška	(none)
7.	Pluperfect[8]	-naq (< *-ñaq)	-sqa
8.	Sw-ref = sbj	-r	-spa
9.	Verb Pl.	-ya	-čik, -ku

He cites the merger of *k and *q and the retention of the contrast between *z and *s as the major features of Ecuador-Ucayali.

Parker initially speculates that Cajamarca belongs to B, but in a note written after the body of the paper, he indicates that it and San Martín clearly belong to Ecuador-Ucayali. The Quechua described by

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[6]The proto-forms in parenthesis are added by me. Parker could not have been aware of these as sources at the time this article was written.

[7]This stands for stress on the final vowel.

[8]He calls it the "narrative past."

Santo Tomás (1560a and b) he considers to have been another now-extinct A dialect which he calls Coastal. He does not display his claims in a family tree, so it is hard to know just how he wants his Ecuador-Ucayali to fit in. He says it is "obviously derived from Cuzco" but also cites presumed Coastal influence. The following tree is what I surmise to be what he intended:

Parker (1963):
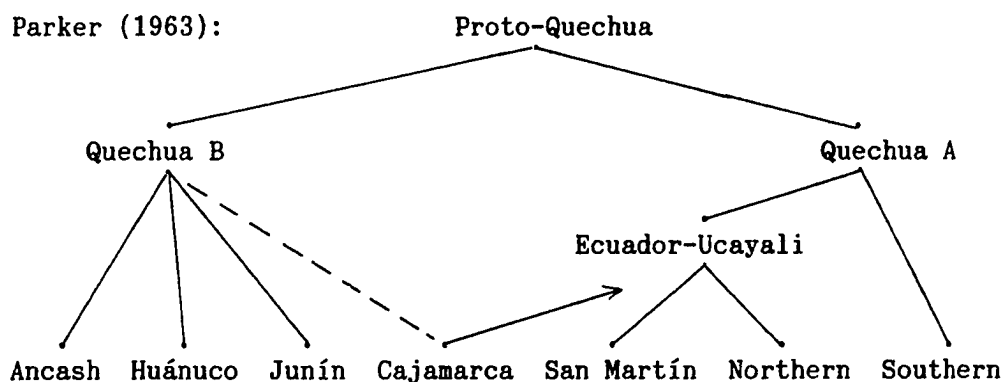
2.4. TORERO 1964

This work, though quite small in size (only 32 pages), is truly monumental in scope and in importance. In it Torero summarizes his many years of investigation of Quechua dialects and in one stroke lays out the whole basic picture of Quechua dialect geography, especially of the little-known Central dialects. Though subsequent work has filled out the picture a good deal more and pointed out certain inaccuracies, the significance of this single article for Quechua dialectology is difficult to exaggerate. Here, for the first time, the features mentioned by Hengvart and Parker (and those who preceded them), as well as

many others never before reported, are actually mapped out showing their geographical distribution.

In the light of what he describes, Torero is much less optimistic than Parker about the possibility of easily classifying the dialects, though he concurs with him in dividing them into two major groups which he calls Quechua I (Parker's B) and Quechua II (Parker's A). He cites as the main criteria for their separation the occurrence in Quechua I of two features,

1. Contrastive vowel length

2. The switch-reference same-subject marker as -r

His reasons for not appealing to the other criteria cited by Parker are undoubtedly that he is taking into account a number of dialects, such as those of the Province of Yauyos and adjacent areas, of which Parker was unaware in 1963. In these dialects the features cited by Parker do not coincide to produce a definitive division, much less the one both Parker and Torero wish to propose. He also explicitly rejects mutual intelligibility as a criterion for the separation of the two groups, a criterion Parker had suggested.[9]

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[9]"Desechamos como principio para nuestra clasificación el de la posibilidad o la imposibilidad de intercomprensión de las diversas hablas, por haberlo hallado no suficiente ni decisivo." (p. 471)

While admitting the difficulty in doing so,[10] Torero divides

Quechua I into eight subgroups: Huaylas, Conchucos, West Huayhuash,

Mid Huayhuash, East Huayhuash, Huánuco-Marañón, Huánuco-Huallaga,

and Valle del Mantaro (Huanca). He claims the division to be based on

linguistic features, but he does not state what they are.

Quechua II is divided into three subgroups which he calls A, B,

and C. In IIA he includes Pacaraos (Huaral,[11] Lima Dept.), Lincha

(Yauyos, Lima Dept.) and Cajamarca (from what I have called the North

Peruvian area). He states that Ferreñafe (Lambayeque Dept.) and

Chachapoyas (Amazonas Dept.) are probably quite closely related to

Cajamarca, though he had as yet not had an opportunity to study them.

The IIA group is set up on the basis of the following

characteristics:

1. Contrast between *c and *x is maintained.[12]

2. The reflex of *x is [ĉ], its original form.

3. Contrast between *k and *q is maintained.

4. Contrast between *z and *s is maintained.

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[10]"Este sector del quechua está bastante subdialectizado, y es difícil
hacer la separación en subgrupos porque buena parte de los rasgos
fonológicos y gramaticales diferenciadores presentan áreas de difusión
no coincidentes. Estimamos, sin embargo, que la suma de los rasgos
lingüísticos examinados para la zona da fisonomía propia a ciertas
hablas y autoriza a agruparlas en los siguientes dialectos." (p. 472)

[11]Torero cites Pacaraos as belonging to the Province of Canta, which it
did at the time this article was written. The new Province of Huaral
was formed only in 1974.

[12]The relevance (or lack thereof) of such retentions of features for
subgrouping of dialects will be dealt with later.

5. Absence of the *-ku* and *-čik* verbal pluralizers.

6. The Durative is *-yka.*
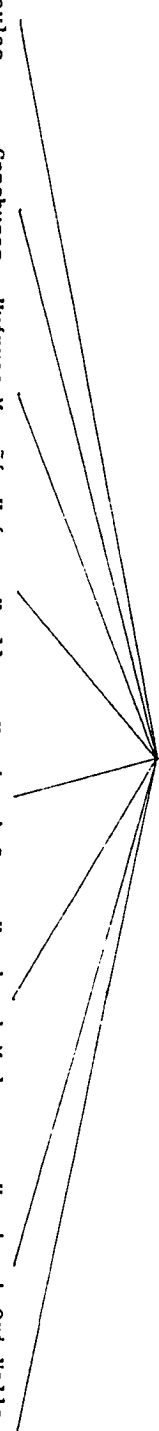
Torero's only basis for including Pacaraos in this group, and for that matter in Quechua II, seems to be the fact that the 1st person marker, <u>both</u> verbal and possessive (1SU and 1POS) is *-y* (*-y* with accent on the last syllable), a form unique to this community alone. None of the six properties cited above distinguish Pacaraos from adjacent Quechua I dialects.

Torero's Quechua IIB consists of Lamas (San Martín Dept.), Ecuador (all dialects in that Republic), Ucayali (based on Navarro), and the coastal dialect described by Santo Tomás (1560a and b).

Though Torero does not himself depict his classification in the form of a family tree, we can tentatively suggest the following as a more-or-less accurate representation of his claims:

Quechua I

Classification branches (each connected to "Quechua I"):

Huaylas
- Corongo
- Huaylas
- Yungay
- Carhuás
- Huaraz
- Aija
- Recuay

Conchucos
- S Huamalíes
- Sihuas
- Pomabamba
- M Luzuriaga
- A Raimondi
- Huari

Huánuco-Marañón
- NE Bolognesi Marañón
- N Huamalíes

Huánuco-Huallaga
- Ambo
- Dos de Mayo
- Pachitea
- Huánuco

Huayhuash Occ
- SE Bolognesi
- NW Cajatambo
- Ambar (Chancay)
- Pacho (Chancay) NW Pasco

Huayhuash Med
- SE Cajatambo
- Checras (Chancay)
- Sta Leonor (Chancay) Yauli

Huayhuash Ori
- Pasco (rest)
- Junín
- Huancayo
- Tarma

Valle del Mantaro
- Jauja
- Concepción
- Huancayo
- Alis (Yauyos)
- Tomas (Yauyos)
- Vitis (Yauyos)
- Cacra (Yauyos)
- Huangáscar (Yauyos)

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Torero 1964 QII      Quechua II

                          A              B              C

Pacaraos (Huaral)      Lamas          Ayacucho

Lincha (Yauyos)        ECUADOR        Cuzco-Bolivian

Cajamarca              Ucayali        Santiago del Estero

Ferreñafe

Chachapoyas
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2.5. TORERO 1968

Torero continues to address the topic of the classification of
Quechua dialects in an article published in 1968 in which he provides
the first information in print about the dialects of Ferreñafe[13] and the
first general sketch of the dialects of Cajamarca. He also attempts to
delineate a series of lexical isoglosses separating the Continuous Zone
into north and south divisions, and to examine the dialects of Ferreñafe,
Cajamarca, Chachapoyas, and Lamas (San Martín Dept.) in the light of
these.

He largely reaffirms the classification proposed in his earlier
article and goes on to make explicit a claim he first suggested there,

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[13]As part of this discussion I will here retain Torero's use of the term
"Ferreñafe" for these dialects, though as noted earlier, I prefer the
more general term "Lambayeque" because certain traditional Quechua
communities, such as Penachí, are outside the Province of Ferreñafe.

namely that of a special genetic relationship between the North Peruvian dialects of Cajamarca and Ferreñafe and certain dialects of the Department of Lima. Specifically he claims to find a special affinity between the dialects of Ferreñafe and Pacaraos (Huaral, LIMA), on one hand, and those of Cajamarca and Lincha (Yauyos, LIMA), on the other. While admitting that Ferreñafe and Cajamarca are fairly closely related, he points out several features of the former which otherwise are found only in dialects of the Central area, such as:

1. Loss of initial *z in some roots (presumably after a change of s > h, with subsequent loss of the h).[14]

2. Reduction of the sequence /aya/ to /a/ in some roots (presumably first to long ā as in most of the Central dialects).

3. Depalatalization of /ñ/ to /n/ in some roots.

4. 1st person object (1OB) is -ma.

5. Existence of a modal -ski meaning 'to do meanwhile,' i. e. while some other action is being carried out. The only occurrence of a similar form (with somewhat different meaning) is in the northwestern part of the Central area.

6. The similarity suffix is -upay, similar to the -yupay of certain Central dialects.

7. The Switch-reference same-subject marker is -r.

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[14]All four Northern Peruvian areas have lost initial /h/.

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This last point, along with the discovery of dialects which Torero considers to be Quechua IIA, but which have contrastive long vowels, moves him to abandon the two criteria he had formerly proposed for separating Quechua I from Quechua II. He now finds the only basis for this major partition of dialects to be the use of vowel length as a marker of 1st person, both subject and possessive.[15]

The author also becomes much more pessimistic about the possibility of formulating an adequate family tree classification of the dialects, as is shown by the following statement given at the beginning of the article:

"En el presente trabajo destacamos, sin embargo, como observación fundamental, la de las múltiples interrelaciones de los grupos y subgrupos, que desautoriza cualquier clasificación tajante por 'árbol' y 'ramas', y que, en consecuencia, permite sólo una débil definición de las subdiviciones." - p. 291

2.6. PARKER 1969a-d

Parker again addresses the question of the classification of Quechua dialects in a series of articles published in 1969. He attempts to take into account the wealth of information provided by the two articles Torero had published by then, and essentially adopts the

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[15]"Esto obliga a plantear por el momento, como único criterio de separación de los dos grupos amplios, el empleo por Q.I de las vocales largas para la expresión de la primera persona poseedora o actora."
- p. 292

latter's subdivision of Quechua B (Torero's Quechua I) into eight dialect areas without modification. Parker's main contribution is to suggest linguistic features which could serve as a basis for the division, and these are obviously based on the information in Torero's maps. Specifically he deals with the changes

(1)   ñ > n

(2)   lʸ > l

(3)   ĉ > č

(4)   č > ¢

The areas of these changes are overlapping, so he decides to give preeminence to (1) and (2), making them branch definers, while (3) and (4) are relegated to the status of areal phenomena. The result is a mixed display of family tree *cum* wave which he draws thus:

Parker 1969a QB   Proto-Quechua B

Central QBI   Peripheral QB

Central QBII

ñ > n
ɛ > l

E Huayhuash C Huayhuash W Huayhuash Huaylas-   N Conchucos Corongo Chupachu Huanca
                                       Conchucos   -Sihuas

c > c

c > ¢
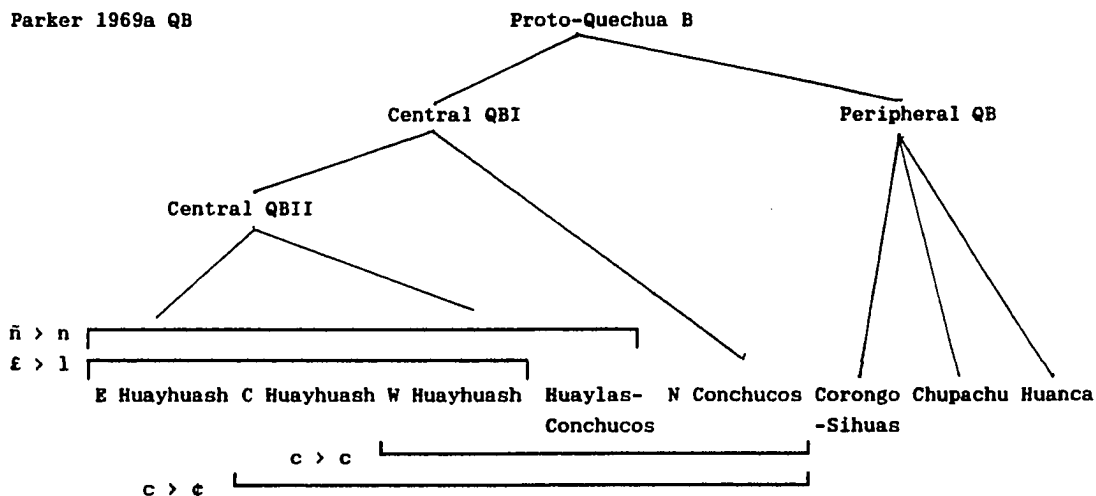
His uniting of Corongo-Sihuas, Chupachu (his term for Torero's "Huánuco Huallaga"), and Huanca (Torero's "Valle del Mantaro") into a single subgroup, "Peripheral QB," seems based entirely on the fact that they have not undergone the change $*z > \emptyset$ intervocalically. The three areas are quite separate geographically, in the extreme north, east, and south, respectively; so the subgrouping is highly questionable and he does not defend it very strenuously.

Parker goes on to propose his own classification of Quechua A dialects (according to his terminology), which differs from that of Torero, and displays the results in a family tree:

Parker 1969a QA — Proto-Quechua A — Northern Peruvian — Ecuadorian-Southern — Ecuadorian — (Coastal-Southern) — Southern — Highland — Imperial Cuzco — Coastal — Colonial Cuzco — Cajamarca — Amazonas — Central-Northern Highland Ecuadorian — Southern Highland Ecuadorian — Jungle Ecuadorian — Ayacucho — Bolivian — Argentinian — H Cuzco
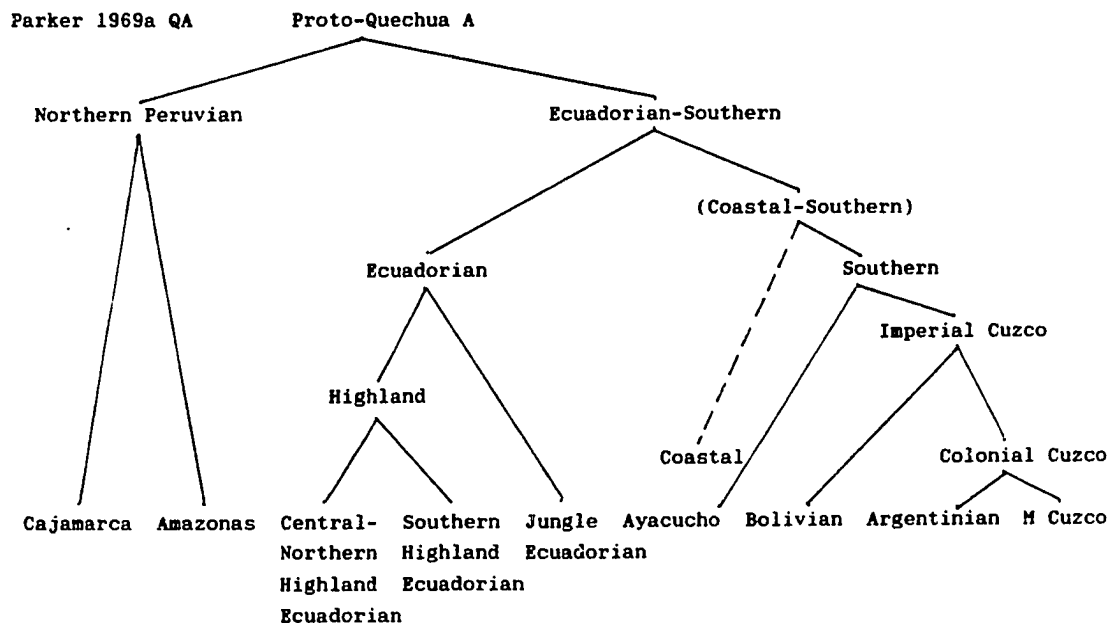
In the fourth instalment of this series, entitled "The Evolution of Quechua A" (Parker 1969d), he attempts to put this classification on a solid foundation by citing for each branch and subbranch the

innovations he believes it to have undergone. In this respect his proposal is unique, as we shall see in chapter four. He posits three changes that for him define QA:

1. $\acute{V} > Vy$ (word-final accent $>$ y).

2.   The Ablative case is formed from the Directional case -man followed by the Accusative -ta ($<$ *-kta).

3.   -ma $>$ -wa (1OB).

These are obviously highly controversial, and will be commented on later.

Parker leaves seven dialects out of his tree display because of lingering doubts about their exact relationships. He questions altogether the inclusion of Pacaraos in the A group (Torero's QII) since it is similar to the adjacent Quechua B dialects in all of the classificatory features Torero mentions, except for the 1st person marker. For lack of morphological data, he is reluctant to include Colombian, though, he says, it appears to be phonologically similar to Ecuadorian, where he expects it to belong. San Martín he expects to fit into his Northern Peruvian branch; but he notes that, unlike Cajamarca and Chachapoyas, it has merged *x with *c (i. e. č with ĉ to give č). Ucayali he says looks similar to San Martín, but is not sufficiently well documented to be included with certainty. Lincha and Laraos (Yauyos, Lima Dept.) he knows only from Torero's characterization, but he agrees they can probably be placed in a subgroup with Cajamarca. He

cites no data for this, especially no shared innovations as he had done with the dialects he classified. Ferreñafe (also known only from Torero's articles) meets his criteria for a North Peruvian dialect. Nevertheless, he considers it to be heavily influenced by Quechua B (following Torero's suggestion), and therefore accepts as plausible Torero's hypothesis of a Central area origin for this dialect.

Parker also proposes a classification of Ecuadorian dialects on the basis of the data he had at hand (various published sources). This is given in the following tree:

Parker 1969d PEc   Proto-Ecuadorian

Highland

North-Central   Jungle

Northern   Central

Southern

Agato Calderón Colta Pulucate Caliata Saraguro Azuay Bobonaza Tena Limoncocha
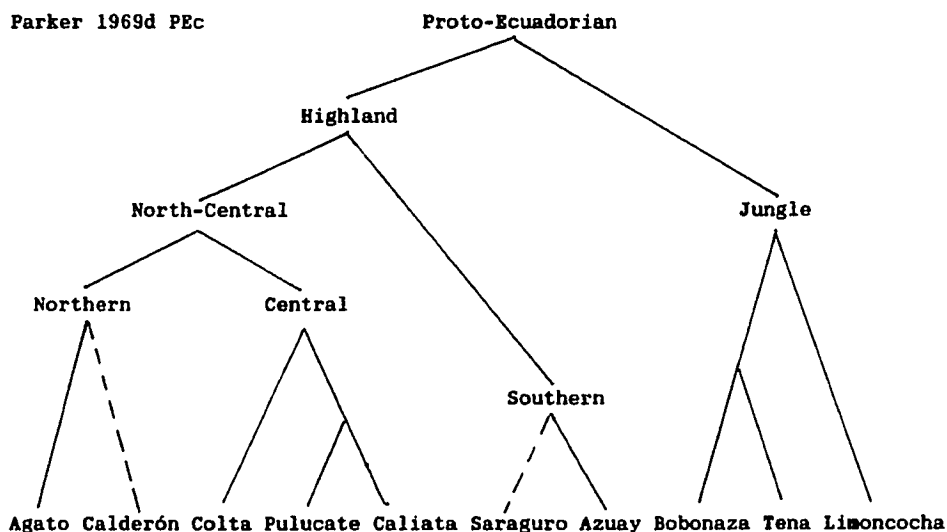
It will be noted that the divisions are largely geographical, a safe way to begin when little is known; but Parker does make the effort to justify each of them in terms of changes they have presumably undergone. No more can really have been expected given the paucity of information available to him at the time.

In an article published in 1970, Torero continues to maintain his basic breakdown of Quechua dialects into groups I, IIA, IIB, and IIC, but he introduces new names for these. He now applies the term "Huáyhuash" to the whole of his Quechua I group (Parker's Quechua B) and reworks its internal classification. He distinguishes two varieties which he calls Huáylay and Huáncay in this group. These are not intended as strict subdivisions, but rather as opposite poles toward which the various dialects lean to a greater or lesser degree. He proposes the term "Yungay" for his IIA subgroup, and includes both his IIB and IIC under the new title "Chinchay". He thus explicitly unites IIB and IIC into a single branch opposed to IIA. Another significant change is that he now considers Chachapoyas to belong to IIB along with San Martín instead of with Ferreñafe and Cajamarca in IIA.

In this article Torero does not reveal much in the way of new linguistic data about any of the dialects but rather presents the results of a glottochronological study of 37 dialects from Ecuador to Santiago

del Estero (Argentina).[16] Once again he draws no explicit tree, but he does indicate which subdivision he considers each of these dialects to belong to. The results can be displayed thus:

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[16]The list of these follows. Most of those located in Peru are names of communities. These are located below according to Province and DEPARTMENT. The rest are names of regions. These are identified as to the type of political division they constitute and the next highest one to which they belong. For those not located in Peru, the country is specified. They are: Corongo (Corongo, ANCASH), Sihuas (Sihuas, ANCASH), Huari (Huari, ANCASH), Monzón (Huamalíes, HUANUCO), Panao, Pachitea, HUANUCO), Carás (Carás, ANCASH), Ocros (Bolognesi, ANCASH), Chiquián (Bolognesi, ANCASH), La Unión (Dos de Mayo, HUANUCO), Cajatambo (Cajatambo, LIMA), Andajes (Oyón, LIMA), Tápuc (Daniel Carrión, PASCO), Ulcumayo (Junín, JUNIN), Tarma (Tarma, JUNIN), Jauja (Jauja, JUNIN), Chongos Bajo (Huancayo, JUNIN), Alis (Yauyos, LIMA), Cacra (Yauyos, LIMA), Huangáscar (Yauyos, LIMA), Tantará (Castrovirreyna, HUANCAVELICA), Ferreñafe (Prov., LAMBAYEQUE), Cajamarca (Prov., CAJAMARCA) Laraos (Yauyos, LIMA), Lincha (Yauyos, LIMA), Pacaraos (Huaral, LIMA), Pichincha (Prov., ECUADOR), Chachapoyas (Prov., AMAZONAS), Lamas (Lamas, SAN MARTIN), Surcubamba (Tayacaja, HUANCAVELICA), Ayacucho (Huamanga, AYACUCHO), Puquio (Lucanas, AYACUCHO), Grau (Prov., APURIMAC), Cuzco (Prov., CUZCO), Muñecas (Prov., LA PAZ, BOLIVIA), Potosí (Dept., BOLIVIA), Chuquisaca (Dept., BOLIVIA), Santiago del Estero (Prov., ARGENTINA).

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Torero 1970 PQ

Huáyhuash (QI) QII

Yúngay Chínchay

Huáylay Huáncay Pichincha Surcubamba

Huáylay	Huáncay	Ferreñafe	Pichincha	Surcubamba
Corongo	Andajes	Ferreñafe	Pichincha	Surcubamba
Sihuas	Tápuc	Cajamarca	Chachapoyas	Ayacucho
Huari	Ulcumayo	Laraos	Lamas	Puquio
Monzón	Tarma	Lincha		Grau
Panao	Jauja	Pacaraos		Cuzco
Carás	Chongos Bajo			Muñecas
Ocros	Alis			Potosí
Chiquián	Cacra			Chuquisaca
La Unión	Huangáscar			Santiago del Estero
Cajatambo	Tantará			

2.8. PARKER 1971

In this article subtitled "The Evolution of Quechua B," Parker
continues the series begun in 1969 and takes up the topic of the
internal diversity of Quechua B (his terminology). By then he had
carried out further field work *in situ* on a number of dialects in the
Department of Ancash and no longer based his conclusions exclusively
on Torero's reports. As a result he explicitly gives up as hopeless any
attempt to classify these dialects according to a tree model:

"The mixed tree-plus-wave classification of QB dialects in CQPG-I
(Parker 1969a) does have a certain intuitive plausibility, but since
it mixes linguistic and political factors it will be of little use in
the present context." (1971: 46).

He then gives a chart displaying the occurrence or non-occurrence of some 16 phonological changes in 20 different dialects.[17]

2.9. TORERO 1974

In his book, *El quechua y la historia social andina,* Torero further specifies the breakdown of his Huáyhuash (Quechua I) group. He maintains the binary subdivision into Huaylay and Huancay proposed in Torero (1970).[18] He specifically proposes three subgroups for the latter, namely Yaru, Jauja-Huanca, and Huangáscar-Topará. He lists the dialects he considers to be typically Huáylay but also posits a group that is intermediate between Huáylay and Huáncay, namely the dialects occupying the headwaters of the Pativilca, Marañón, and Huallaga rivers. These claims can be displayed as follows:[19]

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[17]He uses the term "lect" to refer to a form of speech defined by its participation in a particular series of innovations.

[18]The spelling of these is changed to Wáywash, Wáylay, and Wánkay in this work.

[19]The names included are all Provinces except for (a) those in all CAPS, which are Department titles, and (b) those followed by parentheses, which are District capitals, with their Province indicated in the parentheses.

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Torero 1974        Wáywash (QI)
               ╱                  ╲
          Wáylay                   Wánkay
            │                    ╱    │    ╲
            │        Alto Pativilca  │      ╲
            │         "    Marañón ╱  │        ╲
Huaylas-Conchucos  "   Huallaga  Yaru  Jauja-Huanca  Huangáscar-Topará
Marañón          Bolognesi    SE Cajatambo Jauja      Huangáscar (Yauyos)
Huamalíes        N,W Cajatambo Chancay  Concepción    Chocos (Yauyos)
ANCASH           Ambar(Chancay) PASCO   Huancayo      Azángaro (Yauyos)
                 Dos dr Mayo   Junín    Cacra (Yauyos) Chavín (Chincha)
                 Ambo          Yauli
                 Huánuco       Tarma
                 Pachitea
                                        Tomas (Yauyos)
                                        Alis (Yauyos)
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He proposes the term "Wámpuy" as a cover term for his
Quechua II group. His Yúngay (Quechua IIA) subgroup continues to
contain Pacaraos, Laraos, Lincha, Ferreñafe, and Cajamarca.

Torero cites the verbal pluralizers as the main basis for his
Wáylay versus Wánkay division of Wáywash (QI). This leads to a bit of
a dilemma, for the verbal pluralizers for the dialects of his Huangáscar-
Topará subgroup of Wánkay are identical to those of neighboring Laraos
and Lincha, which he classifies as Yúngay (QII). Torero had already
admitted the existence of such problems, however, with his rejection of
the family tree model in his 1968 article.

As for his tripartite subdivision of Wánkay, Torero cites only one
feature exclusively characteristic of the "Jauja-Huanca" subgroup,
namely the change r > l. He cites no such feature for the Yaru and
Huangáscar-Topará subgroups.

In this paper the main objective was not so much to propose a new classification as to question the bases underlying the previous ones, especially the binary split into Quechua A and B (Parker) or I and II (Torero). In spite of Torero's documentation of problematic dialects such as Ferreñafe and those of the Huaral and Yauyos areas, Parker continues to affirm (1969a: 66) that, "The rapid accumulation of data from throughout the Andes has constantly strengthened the theory that Quechua A and Quechua B represent the initial branching of Proto-Quechua." Having worked on the dialects mentioned above and a number of other "problem" dialects, I argued that, contrary to Parker's claim, it has become increasingly difficult to provide the basis for a clear-cut division between these two groups. The following chart (from this paper) gives some of the features that have been appealed to at one time or another in this regard.

DIALECT DIFFERENTIATORS

	"A"	Viñac (Yauyos)	Lincha (Yauyos)	Laraos (Yauyos)	Cañaris (Ferrenafe)	Andamarca (Huaral)	Pacaraos (Huaral)	Huangascar (Yauyos)	"B"
1st Nom.	-y	-ý	-ý	-y	-y	-ý	-ý	-ˊ:	-ˊ:
1st Vb.	-ni	-ˇni	-ˇni ʔ	-ni	-ni	-ni	-ý	-ˊ:	-ˊ:
Ablative	-manta	-paq	-paq	-manta	-manta		-piq	-paq	-pita
Locative	-pi	-pa	{-pa / -pi}	{-pi / -ĉaw}	-pi		-ĉaw	-pa	-ĉaw
1st Obj.	-wa	-wā	-wā	-wa	-ma	-mā	-mā	-mā	-mā
1→2	-yki	-yki	-yki	-yki	-šu...-ni	-nik		-yki	-q
v length	-	+	+	-ʔ	-	+	+	+	+

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This shows that no two criteria agree as to which dialects should be assigned to which group. This paper also includes data from the previously-unreported dialect of Santa Cruz de Andamarca, a neighbor of Pacaraos in the Province of Huaral (Lima Dept.). It is not in the vicinity of Southern dialects, as are the dialects of Yauyos which Torero reports, and yet it has 1st person markers typical of Quechua A dialects. Parker found it easy (as would most) to question the assignment of Pacaraos to the A group, but this is much more difficult for Andamarca, if one accepts the 1st person markers as the main criterion.

2.11. TAYLOR 1979a, b

In the introduction to his *Diccionario Normalizado y Comparativo Quechua* (1979a), Taylor gives his views on the classification of Quechua dialects with special emphasis on the dialects of the North Peruvian area, since the main body of this work is to present the lexicon of the Chachapoyas area. What he states to be his classification surprisingly does not involve the Central dialects as opposed to the rest as the topmost division.[20] Instead he claims to oppose the Southern dialects, which he calls "Quechua Sur Común," to all the others, which he calls "Chinchay." He proposes to divide the latter into three subgroups as is represented in the following tree:

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[20]He does not comment on previous ones in any way.

Taylor (1979a) (as stated):
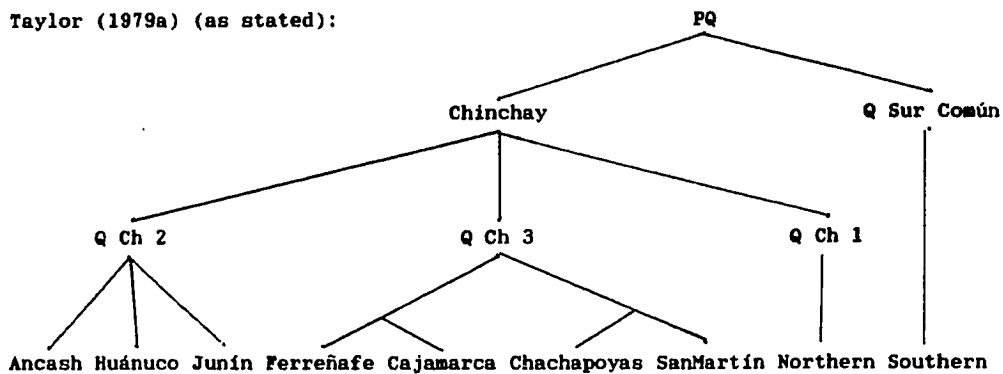
However, as one examines the criteria he cites as definitive of the various groups and subgroups, it becomes clear that these do not support the division he states. Rather they argue for a different division, one much more like that of Parker (1969), which can be represented thus:

Taylor (1979a) (implied):
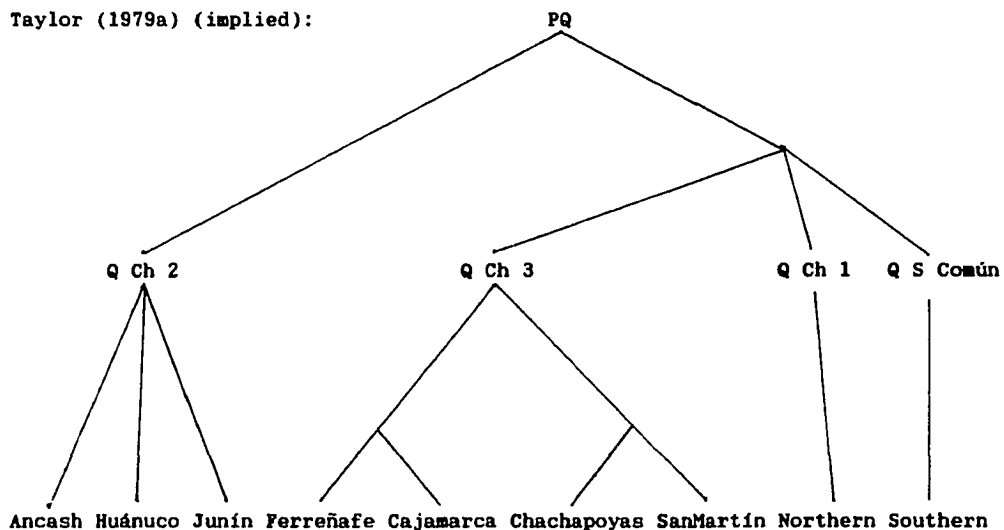
Taylor himself was dissatisfied (see 1984: 123) with his Chinchay 3 group (QCh3); and in a second work published the same year (Taylor 1979b), he proposes assigning them to a third major group which he calls Quechua III:

> "Nous regroupons ces dialectes ici sous le nom de Quechua III (QIII), ce qui ne signifie pas que nous croyons à leur homogénéité." (p. 171)[21]

It is not clear what he means by "homogeneity." If he is referring to membership in a single subgroup, then of course, the statement is self-contradictory.

2.12. CERRON-PALOMINO 1980

In his monograph *El quechua: una mirada de conjunto*, Cerrón essentially repeats the classification of Torero (1964 and 1968). The only real difference is that he rebaptizes Quechua I as "Quechua Central" and Quechua II as "Quechua Norteño-Sureño." Otherwise the dialects and names of Torero (1964, 1968) and their subgrouping are maintained exactly, including assigning Ferreñafe, Cajamarca, Pacaraos, and Lincha to one subgroup, and Chachapoyas together with Ecuador to another. Lamas (San Martín) does not appear in the tree he draws (p. 12), probably due to an oversight.

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[21]"We regroup these dialects here under the name Quechua III (QIII), which does not mean we believe in their homogeneity."

As criteria for the principal division Cerrón cites the same two given in Torero (1964), even though they were explicitly abandoned by their author in Torero (1968). He does caution us that no clear-cut division is possible:

"Hay otras muchas diferencias gramaticales, como se indican más abajo, que separan a los grupos central y norteño-sureño. Pero las diferencias que ellas establecen no permiten una partición nítida como se quisiera, pues, como ya se dijo, la realidad es mucho más compleja; incluso la que se ha sebozado, con ser un indicador logrado en base a solamente dos aspectos, no establece un deslinde tajante entre ambos grupos." (p. 11)

He also rejects the Tree model as being "unrealistic" (p. 12), but says the Wave model, while being "advisable in rigorous work" is "not very didactic in other contexts."[22]

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[22]"Conviene señalar que tales ramas... no constituyen entidades nítidas,... entre una y otra rama se dan una serie de transiciones que a primera vista denuncian el carácter arbitraio de toda agrupación dialectal. ... como Parker y Torero lo señalan, de los dos modelos de agrupación que ofrecen la lingüística histórica y la geografía dialectal --el árbol genealógico y la martiz de ondas-- sólo la matriz úndica... podría reproducir parcialmente con mayor realismo el mosaico dialectal quechua." (p. 6)

2.13. TORERO 1983

In this article, Torero essentially repeats his classification of 1974 with the same terminology; but in a note about Pacaraos (Huaral, LIMA), he comments:

> "Tales peculiaridades: morfema /-y/ para marcar tanto la primera persona nominal cuanto la verbal, y el acento automático en la vocal de la sílaba que cierra, podrían ubicar mejor a Pacaraos como un dialecto intermedio entre Q.I y Q.II, o, más aún, en definitiva, como un tercer conjunto por sí sólo, al mismo nivel del Wáywash y el Wampu, conjunto cuyo único representante actual sería el dialecto pacareño." (p. 82).

Torero does not comment on the implications this has for his long-held position regarding a special relationship between Pacaraos and Ferreñafe.

2.14. ADELAAR 1984

In spite of its title, "Grammatical Vowel Length and the Classification of Quechua Dialects," this article is really only concerned with the classification of the dialect of Pacaraos, on which the author had, by this time, done extensive field work *in situ*. He adopts the terminology of Torero (1964, 1968) and proceeds to propose a reconstruction of the 1st person marker of Proto-Quechua. Since he considers no other distinguishing features, he obviously agrees with Torero that this is the only basis for the earliest split of Quechua

dialects. He proposes a rather controversial evolution of the 1st person markers of Quechua I and II, and ultimately decides on this basis that Pacaraos should be classified with the QI branch rather than with QII as Torero has done (until 1983). In this he agrees with Parker's earlier stated skepticism.

2.15. CERRON-PALOMINO 1987

Cerrón considers the topic of Quechua dialect classification in much more detail in his book, *Lingüística Quechua.* Though the discussion is more lengthy, little in the way of new proposals is presented. He abandons the terminology of Cerrón (1980) in favor of that of Torero (1970 and 1974).[23] He discusses the classificatory work of Parker and Torero and informs the reader from the outset that what he presents will follow the work of the latter quite closely. With reference to these two authors, he characterizes the former as being more concerned than the latter with "intermediate stages" in the development of present-day dialects. In this regard he cites with approval Torero's rejection of any strict classification in terms of "trees" or "branches" (quotes are Torero's). He states that the methodology is to "carefully select isoglosses" so as to "establish groups and relationships."[24]

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[23]However, his spellings are "Huáihuash", "Huáilas, "Huáncay", etc.

[24]"..Pues es en base a una selección cuidadosa de isoglosas que se buscará establecer agrupamientos y filiaciones." (p. 225)

The classification presented is essentially that of Torero (1974), both in the divisions proposed and the criteria cited for them, with two exceptions:

(1) Pacaraos is assigned to Huayhuash (QI), following Adelaar.

2) Yungay (QIIA) is subdivided into a northern group containing Ferreñafe and Cajamarca (Northern Peruvian area) and a southern group consisting of Laraos and Lincha (Yauyos). Cerrón cites only a geographic criterion for this.

2.16. SUMMARY

The classifications based on linguistic criteria (including Hengvart) all agree in a basic bipartite division of Quechua dialects. Taylor's stated classification in 1979a (as opposed to the one implied by the criteria he cites) is the only one not proposing a division which opposes the Central dialects to all the rest. There seems to be general agreement that the 1st person markers are one (if not the only) basis for this division. There is some question as to just how to handle some of the westernmost dialects of the Central area, such as those of Provinces of Yauyos and Huaral (Lima). As long as the verbal 1st person marker is taken as the main criterion, Pacaraos is the only dialect presenting serious problems.

There is no general agreement about the dialects of the North Peruvian area. All consider Ferreñafe and Cajamarca to belong to a single subgroup, with Chachapoyas and San Martín forming another.

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Parker and Taylor group Ferreñafe-Cajamarca together with Chachapoyas-San Martín to form a separate Northern Peruvian branch. That is to say they consider these two groups to be closer to each other than to any other dialects. On the other hand, Torero, followed by Cerrón,[25] assigns Ferreñafe-Cajamarca to the same subbranch as the Yauyos dialects of Laraos and Lincha while Chachapoyas-San Martín is grouped together with the dialects of the Northern area.

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[25]Cerrón actually claims (p. 237) that Parker's initial bipartite division of his Quechua A corresponds to Torero's Yungay (QIIA) versus Chinchay (QIIB and QIIC). This is simply false, as is easily seen from the trees representing the respective authors' proposals.

3. THEORY OF CLASSIFICATION

3.1. INTRODUCTION

3.1.1. Comments on Previous Classifications

Several observations can be made regarding the classifications examined in the preceding section, many of which could apply as well to classifications proposed in other language areas. First of all, few of the various authors appear to be very clear on exactly what the goal is of the classifications they propose. Most imply or overtly refer to historical implications.

Second, though all seem to have some underlying assumptions about what a classification should be based on, almost no one states what they are or attempts to follow them explicitly. Parker is the only one who attempts to base his subdivisions on the "shared innovation" principle (which we will deal with below), and even he at times departs from it in practice and abandons it entirely in the end. Those who go to the trouble of citing linguistic facts to support their assignments of dialects often give the impression of doing so to justify conclusions they have already reached intuitively. Taylor (1979a) goes so far as to state one grouping but cites data supporting another. Even where there is general agreement among the various authors, such as on the independent nature of the Central dialects, the lack of a strict methodology leaves the impression that the agreement is little more than a coincidence of prejudices.

This is not to say that the authors are inept or that the solutions are obvious. What is called for, in my opinion, is to take a step back and review the question of just what classification is, and how it can be carried out on a truly scientific basis. This is the purpose of the present chapter. It should be emphasized from the outset that nothing contained in it is really novel. Virtually all of the points made are well-known principles of historical linguistics; no originality whatever is claimed, except perhaps in the form of presentation. The reason for this review here is that these principles have generally been ignored to one degree or another by those who have dealt with the classification of Quechua dialects.

3.1.2. Types of Classification

Obviously, linguistic classification has a great deal in common with any other type of taxonomic science. See, for example, Hoenigswald and Wiener eds. (1987) which contains a series of papers examining issues of classification in biology, textual criticism, and linguistics, and the relation between them.

It seems clear that in any field one may distinguish at least three different types of classification, which I shall refer to as Categorial, Quantitative, and Genetic.

3.2. CATEGORIAL CLASSIFICATION

What can be called Categorial Classification, may be viewed as consisting of basically two tasks: 1) the _definition_ of a series of categories and 2) the _assignment_ of the entities to be classified to these categories.

The definition of the categories will determine the type of classification that results. Since the members of a category or class normally all share one or more particular properties, the definition of the class will usually consist of the specification of those properties.

Regarding the definitions and their formulation (task 1), two points should be kept in mind: 1) In order for the classification to be useful, they must be suitable for the particular goals one has in mind. 2) If the classification is to be non-arbitrary, they must be specific enough to permit empirical verification of any assignments made in terms of them.

With regard to the second task, i.e. the assignment to categories, one may distinguish between two subtypes of classification, external and internal. The goal of _external_ classification is to assign a _single_ entity to one or more of a previously defined set of categories. In linguistic classification these categories might be, for example, typological characterizations[1] or membership in previously established linguistic families or subdivisions. Thus claims such as "Mandarin is an isolating

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[1]for more about typological classification see Anttila (1972), p. 310-18.

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language," or "Resígaro is Arawakan (belongs to the Arawakan linguistic family)," are external classifications of Chinese and Resígaro respectively.

The goal of internal classification, on the other hand is to subdivide a group of entities into subgroups. The basis of this subdivision may be previously defined categories of a more general nature, as was the case with external classification, or categories specific to the particular group of entities in question. As an example of the former, Indic languages may be subdivided into those which are tonal (such as Punjabi) and those that are not (such as Hindi). The latter can be illustrated by the division of Quechua dialects into those in which the first person object marker is -wa and those in which it is -ma.

3.2.1. The Differentiator Matrix

Restricting our view to internal classification, it is clear that in any type of taxonomy the subdivision of the classified entities will depend on how the individual categories are defined. If, as is often the case, the definitions are not mutually exclusive, various entities may belong to more than one category at a time; and the interrelations between them can become complex. This raises the question of how these interrelations can be appropriately displayed.

One possibility would be a chart where the entities are assigned to one axis and the categories to the other. An example of such a

display in phonology would be the classification of phonemes by means of distinctive feature matrices such as the following:

	p	b	t	d	k	g
coronal	−	−	+	+	−	−
anterior	+	+	+	+	−	−
voiced	−	+	−	+	−	+

With regard to the internal classification of languages and dialects, one could define the categories in terms of specific linguistic features which are known to differ among them. Such features will be referred to here as "dialect differentiators." They can consist of any linguistic property which can observably vary from one language or dialect to another, such as, semantic nuances of certain expressions, syntactic properties of individual forms, grammatical constructions, the phonological shape of particular morphemes, the local reflexes of proto-phonemes of an earlier stage, on down to phonetic details of pronunciation. When several dialects (frequently I shall use this term even when what is said applies equally well to related languages) are classified with respect to a series of differentiators, the results can be displayed in what might be called a Differentiator Matrix. One axis of the matrix is assigned to the list of differentiators and the other to the list of language varieties in question. At each intersection (or cell of the matrix) the local value of a particular differentiator in a particular variety is given.

As an example, consider the chart below in which the local forms of

1) the Proto-Quechua sequence /ay/ syllable finally

2) the Proto-Quechua alveopalatal affricate *c

3) the Proto-Quechua palatal affricate *x̌

4) the past tense marker

are given for each of the following communities:

a) Huaraz (Ancash Dept., Peru)

b) La Unión (Huánuco Dept., Peru)

c) Tarma (Tarma Dept., Peru)

d) Cochabamba (Bolivia)

e) Santiago del Estero (Argentina)

	1	2	3	4
	*ay.	*c	*x̌	past
a. Huaraz	e:	¢	č	-rqa
b. La Unión	ay	¢	č	-rqa
c. Tarma	ay	č	ĉ	-ra
d. Cochabamba	ay	č	č	-rqa
e. Santiago	ay	č	č	-ra

Some authors seem to feel this is the only type of truly scientific classification possible in certain situations. Thus, as we saw, Parker (1971: 2) rejects even his own previous work applying the family tree model to Quechua B, and gives instead a Differentiator Matrix. Cerrón-Palomino agrees with this, at least in principle (1980: 11, 12).

3.2.2. The Schema

When the categories defined interact in certain ways, it may be useful to display the interrelations by assigning each category a particular area on a two-dimensional chart or schema. The areas thus assigned can overlap when necessary, i.e., when the definitions are not mutually exclusive. The classified entities are then located on the chart in the area which best reflects their categorial membership. One example of this sort of display is the traditional phoneme chart where areas are assigned to phonological features, as in,

	Labial	Alveolar	Velar
Voiceless	p	t	k
Voiced	b	d	g

In this chart, the areas are assigned along the horizontal and vertical axes, but this is not the only possibility. When the interrelations are more complex as in the case of the five Quechua dialects above, a two-axis approach will not suffice, and a more intricate assignment of areas is required. In such cases it is often convenient to draw boundaries between the areas to facilitate the display. The areas can overlap as before, so the boundaries can crisscross to show the complexity of the relations involved. In language classification the information contained in a Differentiator Matrix (such as the one characterizing the five Quechua dialects above) can be represented in a schema much as the distinctive feature matrix was reduced to a phoneme chart in phonology.

In this case each differentiator is represented by a boundary line. Towns on the same side of a line have the same value for the differentiator. Thus, when the lines are properly labeled, all of the information displayed in the Differentiator Matrix is contained in the schema. One can easily tell which differentiators separate which towns. The above Differentiator Matrix for the five Quechua dialects can thus be reduced to the following schema:

```
         e:|ay            ¢|č   -rqa|-ra   č|ĉ
     _____       ___|___   |     ___|___
    Huaraz    La Unión         |          Tarma
                               |        _____
     _____      |
              Cochabamba       | Santiago
                               |
```

For an example of such a Schema for Indo-European, see Anttila, 1972, p. 305.

3.2.3. Dialect Geography and Isoglosses

A general property of such schemas in any type of taxonomy is that, once the areas have been delineated by drawing in boundary lines, the precise location of the classified entities in the two-dimensional space of the page is less critical. It is only their position with respect to the lines that is important, and these can be drawn with a great deal of flexibility. This means that the actual location of the entities on the page can be left to be determined by some other factor such as their actual geographical distribution on a map. Thus the incorporation of

boundary lines into such schemas makes it possible to display at the same time both the classificatory and geographic interrelations of the entities classified.

Maps of this type are an excellent means of displaying the results of studies in dialect geography; in fact they are just the equivalent of the traditional dialect map. The boundary lines are what have traditionally been called isoglosses. The term is not always restricted to the boundaries on geographical maps. The boundaries of schemas like the one above are also often called isoglosses. Such displays can be referred to as Isogloss Schemas.

When the five Quechua-speaking communities are relocated according to their approximate geographic locations, the result is as follows:

ē|ay   ¢|č -rqaʃ-ra č|ĉ

Hz   LU

Tarma

Coch

Sgo
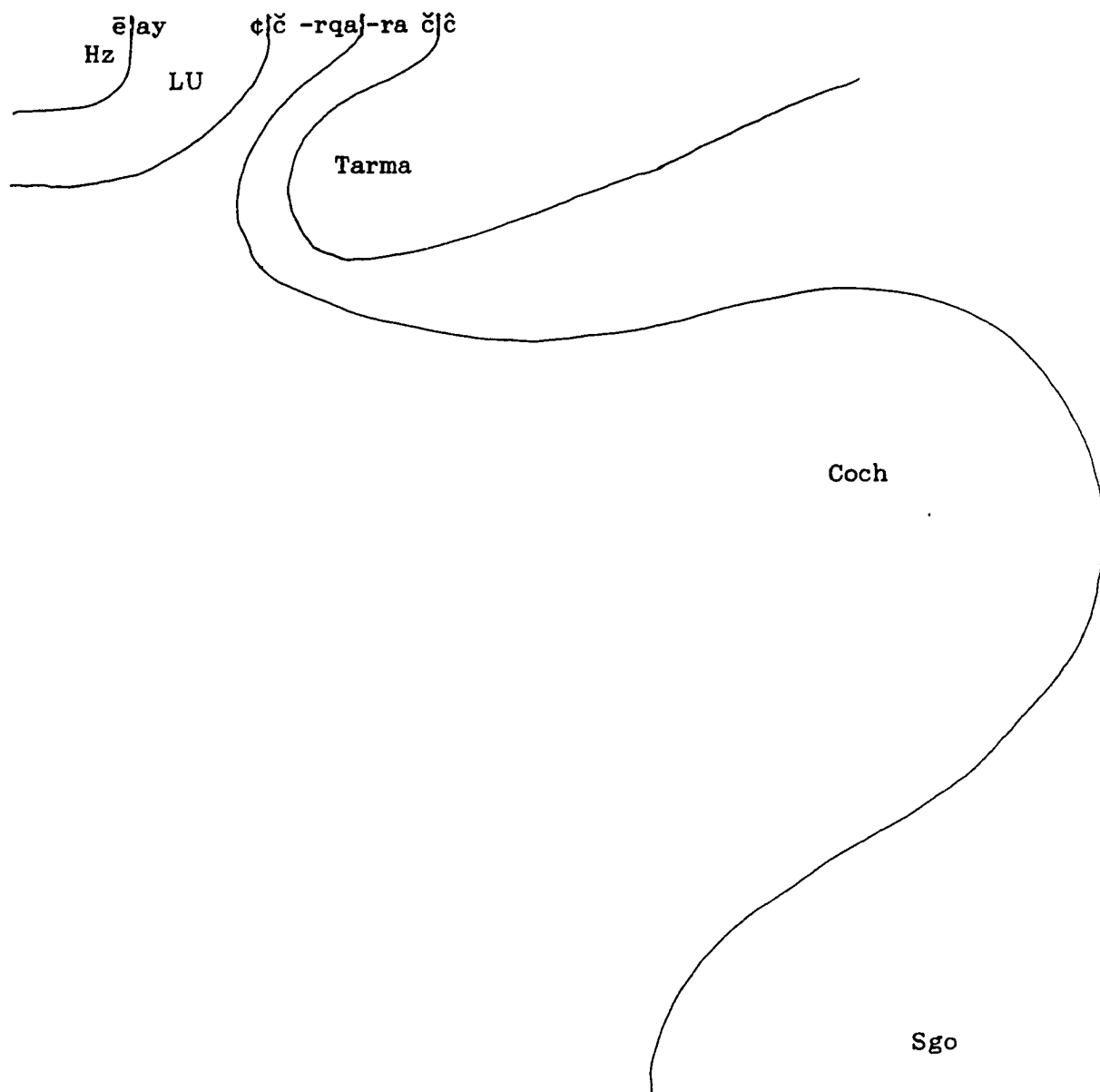
Such a display, which incorporates geographic as well as linguistic information, may be useful for a number of purposes, some of which we will examine later. Nevertheless, it should be noted that, strictly for purposes of Categorial Classification, it is no different than the Isogloss Schema or the Differentiator Matrix which were examined above.

3.2.4. Trees

In what has been said up to this point, all categories dealt with have been weighed equally. When there exists some basis for ordering them as to importance or priority, another type of display becomes applicable, namely that of a hierarchical or "tree" structure. In this type of display the categories are separated into subgroups first according to the criterion that is given greatest priority, then each subgroup is further subdivided according to successively lower criteria.

Continuing with the example of the phonemes seen above, if the three categories (features) can be hierarchically ordered, Anterior, then Coronal, then Voiced, the following tree display of the phonemes results:

Anterior

Coronal

Voiced

d   t   b   p   g   k
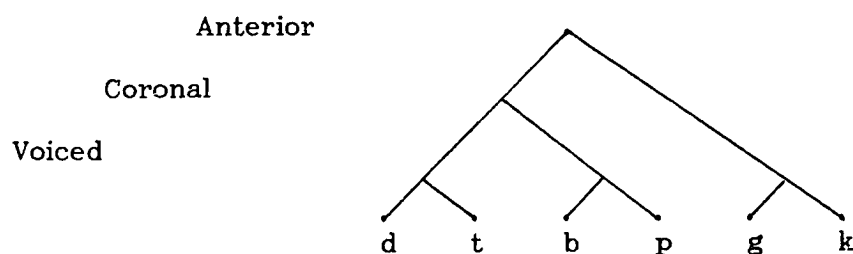
In each branching the left branch represents the plus value and the right the minus value.

Classifications of languages and dialects can be thus represented as well, as long as a basis can be found for hierarchically ordering the differentiators. For example, if the features of the five Quechua dialects dealt with above are prioritized according to their numerical order, the following tree results:

1)	e:		ay			
2)			¢		č	
3)				č		ĉ
4)			-ra		-rqa	
Huaraz	La Unión	Santiago	Cochabamba		Tarma	
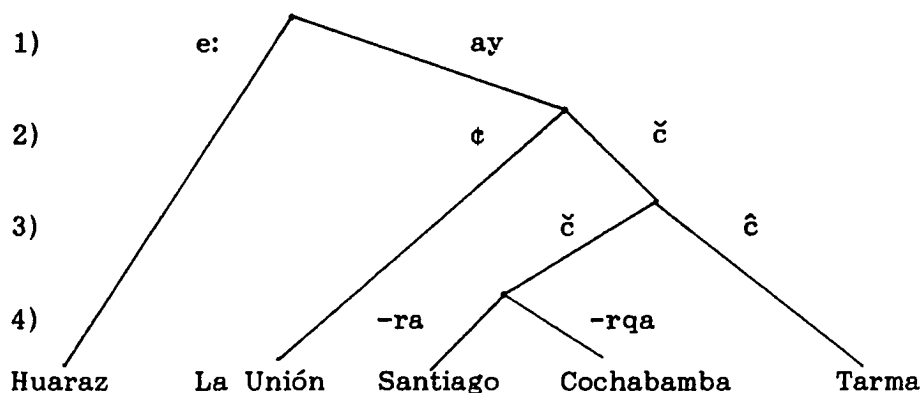
It should be noted, however, that this tree does not represent all of the facts present in the former displays. The following information is lacking:

1. Huaraz is ¢ < *c.

2. La Unión is č < *x.

3. Huaraz and La Unión are -rqa.

4. Tarma is -ra.

Different hierarchical ordering of the criteria will produce quite different results. In this case, however, no tree expresses all of the facts contained in the other displays.

3.3. QUANTITATIVE CLASSIFICATION

The motivation of another type of classification is to formalize the perception that some entities are more similar to each other than are others. The method I shall refer to as Quantitative Classification attempts to deal with this question of relative similarity. Rather than

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assigning them to one or more of a group of categories, as is done in Categorial Classification, emphasis is on quantifying the relationship between the various entities treated. This requires 1) defining the criterion which is to be the basis of comparison and 2) specifying a means of arriving at a numerical characterization of the relationships with regard to this criterion. Normally when a group of three or more varieties are considered, a value is assigned to each pair of them. The scalar value assigned to each pair then becomes an index of their similarity.

3.3.1. The Degree of Similarity Matrix

The results of this procedure might ultimately be displayed in some sort of grid or network which indicates the values obtained for any pair of entities. To begin with, however, it is useful to simply tabulate the results in a chart with the entities arranged along both axes. Each cell would contain the value for the pair consisting of the entity of the column and that of the row. This type of chart can be called a "Degree of Similarity Matrix" or simply a Degree Matrix.

To illustrate this approach, let us return to the five Quechua dialects treated earlier. The Differentiator Matrix and the Isogloss Schema, while accurately displaying the facts considered, do not *per se* provide us with a quantification of the degree of similarity between the various dialects. A simple way to derive such a quantification would be to count the number of differences between any two dialects (i.e. the number of isoglosses separating them) and thus arrive at an index for

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the pair. This would, of course, necessitate considering all of the differentiators in question to be equal in importance. Counting the differences between each dialect pair in the Differentiator Matrix given previously, we obtain the following Degree Matrix:

	Huaraz	La Unión	Tarma	Cochabamba
Huaraz	-----			
La Unión	1	-----		
Tarma	4	3	-----	
Cochabamba	2	1	2	-----
Santiago	3	2	1	1

These results, while accurate as far as they go, would not be very satisfying, as a general characterization, to anyone familiar with these dialects. This matrix, for example, seems to indicate the following:

a) La Unión is as close to Cochabamba as it is to Huaraz.

b) Cochabamba is as close to La Unión as it is to Santiago.

c) Santiago is as close to Tarma as it is to Cochabamba.

d) The two most different dialects are Huaraz and Tarma.

These implications are clearly due to the particular differentiators that were chosen, the way in which they were formulated, and the fact that they are so few in number. Were we to reformulate them and increase the number of differentiators considered, the indices of similarity obtained would correspond more closely to the intuitive impressions of linguists and native speakers alike who have dealt with all five, and would probably be along the following lines:

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a) Huaraz and La Unión are more similar to each other than to any other dialect.

b) Both are much closer to Tarma than to Cochabamba and Santiago.

c) The latter two in turn are much closer to one another than to any of the previous three.

In the following Differentiator Matrix, differentiator 3 has been redefined to indicate whether the two affricates have merged or not, and the 1st person verbal subject marker (5) and the 1st person object marker (6) have been added.

	1	2	3	4	5	6
	*ay.	*c	*x=*c?	PST	1SU	1OB
a. Huaraz	e:	¢	no	-rqa	-:	-ma:
b. La Unión	ay	¢	no	-rqa	-:	-ma:
c. Tarma	ay	č	no	-ra	-:	-ma:
d. Cochabamba	ay	č	yes	-rqa	-ni	-wa
e. Santiago	ay	č	yes	-ra	-ni	-a

The indices derived from this Differentiator Matrix are much more in line with the overall facts and are given in the following Similarity Matrix:

	Huaraz	La Unión	Tarma	Cochabamba
Huaraz	-----			
La Unión	1	-----		
Tarma	3	2	-----	
Cochabamba	5	4	4	-----
Santiago	6	5	3	1

This illustrates the fact that the differentiators considered, the way they are formulated, and the number of them included greatly affect the results obtained.

The Quantitative method just outlined, in which differences or isoglosses are counted, has not frequently been employed explicitly in this form. Implicitly, however, it is resorted to more often than one might think. It probably underlies most impressions of relative similarity or difference on the part of those familiar with the various dialects in question. It also is in fact being applied when one counts isoglosses to justify a classificatory division, a technique that will be dealt with later.

3.3.2. Mutual Intelligibility

One obvious candidate for this sort of treatment, involving the establishment of a scale, is mutual intelligibility.[2] As we noted earlier, the problem of how it can be precisely characterized and quantified is

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[2]Perhaps one should say, "so-called mutual intelligibility," because it often turns out to be the case that the degree of intelligibility, in so far as it can be measured, is not really mutual (see Casad 1974).

far from trivial. One possibility is to define it in terms of the results
obtained by applying some sort of standardized test, which attempts to
measure the reactions of native speakers to materials from different
areas. As an example, see the following taken from Casad (1974 p. 93),
representing the number of correct responses on a standardized test
administered in several Zapotec communities:

	Com	Cho	Jal	Xoc	Are
Comalte	99	90	85	70	76
Choapan		100	100	96	98
Jalahui			99	98	98
Xochiap				100	88

3.3.3. Lexicostatistics

One variety of Quantitative Classification that has been widely
applied in the classification of languages and dialects is that of
Lexicostatistics. A very extensive literature exists on the issues
involved in its application and the results obtained. For an extensive
survey, see Embleton (1986).

In the application of this method, lexical items are the only
differentiators considered. Vocabularies of each of the varieties to be
compared are collected. Usually these are the local forms of a fixed list
of items which has been chosen as being illustrative of the "basic
vocabulary" of any language. An additional stipulation is that the local
forms for each lexical differentiator are classed as "different" only when

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they appear to be totally unrelated in phonological shape (i.e. "non-cognate"). By counting the pairs considered to similar enough to not be so eliminated, one arrives at a percentage of those forms considered "cognate" out of the total number of lexical items on the list. This percentage is then taken as a measure of the linguistic proximity of the two varieties compared, like the similarity index above. The process is repeated for each and every pair of languages or dialects of the whole group being compared. The resulting percentages for each pair can be displayed in a Degree Matrix or in what has been called a Lexicostatistical Matrix.

This method does not provide a means of distinguishing between specific lexical differences as to their importance; it weights them all equally. By its very nature lexicostatistics reduces the question of linguistic similarity to that of just _lexical_ similarity. However it does simplify the task of searching for an extensive list of isoglosses, it is relatively easy to apply, and one arrives at a unique result.

Well-known problems remain in its application, all of which have been discussed at length in the literature. How, for example, does one choose between synonyms in filling out the list for a particular variety? How does one recognize non-obvious cognates without the benefit of previous comparative work or eliminate chance resemblances in judging potential cognates, etc.? In spite of these problems it continues to be used as a classificatory tool, probably because of its relative ease of application.

To illustrate the results of this methodology with the five Quechua dialects examined earlier, the following percentages of cognates were reconstructed from Torero's glottochronological calculations (Torero, 1970). They may be compared with the Degree Matrix above. In these Huari (Ancash) and Chuquisaca (Bolivia) have been substituted for Huaraz and Cochabamba respectively, since the latter two do not appear in Torero's tables. Each is quite closely related to the dialect it is substituted for.

	Huari	La Unión	Tarma	Chuquisaca
Huari	00			
La Unión	91	00		
Tarma	91	94	00	
Chuquisaca	78	79	78	00
Santiago	79	78	76	92

It will be noted that the results are generally along the lines of how the relations between these dialects have been impressionistically characterized. These results indicate, however that Huari is equally distant from La Unión and Tarma, which certainly is not the case in general. Other figures in Torero's Lexicostatistical Matrix do not coincide with the results (even his own) of other types of classification.

Strictly speaking, in its basic form, Lexicostatistics does not have a chronological component. Such is incorporated only with the additional assumption that the percentage of noncognate vocabulary in two languages or dialects is a function of the amount of time which has

passed since their separation. Though this may be the general tendency, the relationship is not necessarily direct.

The practitioners of Lexicostatistics often apply it in the hope or belief that its results compare favorably enough with those of Genetic Classification so that, with some allowances for borrowing, it can provide additional information in the construction of a family tree or even a short cut that can substitute for the latter in diachronic studies. Its results, correlated with geographical information, are sometimes cited as a means of detecting special influence (shown by borrowing) or migration (see Torero 1968, for example). This, however, becomes a matter of faith in the model when the difference in percentages of cognates involved is relatively small. Some have made far-reaching claims on the basis of the noncognacy of two or three items.

3.3.4. Glottochronology

The methodology called Glottochronology is based on a type of lexicostatistics. It involves the assumption that the relation between vocabulary replacement and the passage of time is direct and furthermore that vocabulary replacement takes place at an approximately constant rate, other factors such as external influence being excluded. Based on this, it attempts to calculate the approximate time of separation of two varieties from the percentage of their shared cognates using the mathematical Law of Growth and Decay. These assumptions have not stood the test of comparison with known cases, and the results of glottochronology have often proven to be far from satisfactory.

3.3.5. Similarity Trees

One might ask if the results of similarity index calculations could not be displayed in some sort of tree structure, which might be called a "Similarity Tree.". Returning to the five Quechua dialects we considered above, it is not difficult to come up with a tree which approximately expresses the relations revealed in the second Degree Matrix formulated for these dialects, namely,

Huaraz   La Unión   Tarma Cochabamba Santiago del Est
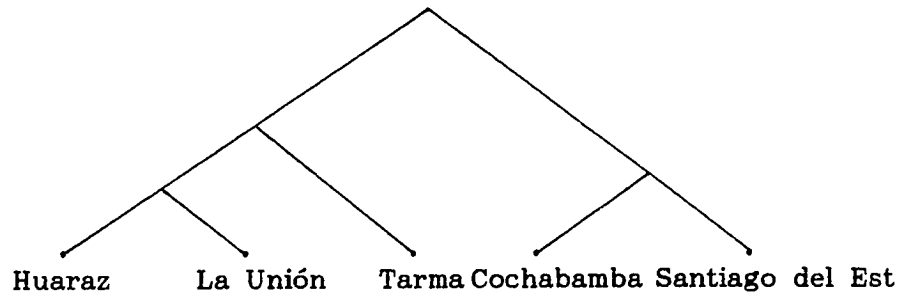
It is not so easy to see how the relations of the first Similarity Matrix for these dialects could be expressed. In general there is no obvious way to convert the results displayed in a Degree Matrix into a Tree. See Grimes (1981) and Embleton (1986) for some proposed algorithms. All of these are *ad hoc*, and the results are not always satisfactory.

3.4. GENETIC CLASSIFICATION

Though the above types of classification have frequently been applied, probably the most common type of attempted is what may be referred to as Genetic Classification. It focuses on the history of the languages or dialects considered; that is, it is based on their

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evolutionary line of descent. Thus it is really a part of what has been called diachronic linguistics.

Linguistic evolution, like any evolutionary framework, has as its basis the assumption of common origin, namely the proposition that present-day divergent varieties all derive from a single original source. Their diversity is presumed to be the result of various changes occurring at various points in time which have affected part, but not all, of an originally uniform population. The beginning of Comparative Linguistics is usually considered to be Sir William Jones' statement in 1786 proposing an unknown common source for Sanskrit, Greek, and Latin (as well as Gothic, Celtic, and Old Persian),[3] and referring to these languages as a linguistic "family" based on specific lexical and grammatical parallelisms.[4]

3.4.1. The Family Tree

Also as in any evolutionary framework, the lines of descent are conveniently represented in a Family Tree, in which splits in these lines

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[3]Speaking of the relation of Sanskrit to Greek and Latin: "...yet bearing to both of them a stronger affinity, both in the roots of verbs and in the forms of grammar, than could possibly have been produced by accident; so strong indeed, that no philologer could examine them all three, without believing them to have sprung from some common source, which, perhaps, no longer exists: there is a similar reason...for supposing that both the Gothick and the Celtick had the same origin with the Sanskrit; and the old Persian might be added to the same family..." (quoted in Hock, 1986: 556)

[4]In fact Jones was not really the first to suggest such a thing, for a careful demonstration (not the mere statement) of common origin had been made already in 1770 by J. Sajnovics in his Demonstratio idioma ungarorum et lapponum idem esse regarding Hungarian and Lapp.

form branches. As the quote from Jones shows, right from the very beginning of Comparative Linguistics it became the fashion to use kinship terminology to refer to relationships between languages. It is only natural that comparativists represented the relationships they posited between languages in the form of Family Trees. The higher branchings in the tree represent linguistic divergence which is relatively earlier than that represented by the lower branchings. Members of the same branch are presumed to have shared a period of evolutionary history. According to this model, then, the linguistic proximity of two varieties is defined in terms of the relative duration of their shared evolutionary history and the relative recency of their divergence. Thus the tree is at the same time a display of the evolutionary history of the entities included and their genetic classification.

Though the Tree Model is sometimes attributed to August Schleicher (Jeffers and Lehiste 1979: 27), his exposition of it in 1871 was no more than a schematic representation of what others before him had done (Pulgram 1972: 235).

This model may seem to owe a great deal to the biological theory of evolution. In fact just the opposite is true. As the date of Jones' statement shows, it was formulated much earlier than Darwin's *Origin of the Species* and served as a model for the latter. It did receive important input from the theory of textual criticism developed to deal with manuscript traditions and was later reinforced by the evolutionary

models of biology (see Anttila 1972 ch. 22 and Hoenigswald and Wiener, eds. 1967).

The essentially chronological nature of the Genetic Model has a number of important consequences. According to it, as we saw, two different dialects arise when an innovation affects part but not all of a speech community. Subsequent innovations may further subdivide the two speech communities thus created, but the original change is the one that continues to define the two groups. Therefore in order to construct a tree which properly captures the linguistic history, the innovations must be organized hierarchically into their correct relative chronological order. Different orderings will obviously produce quite different results. Choosing one classification over others will often be simply a matter of arguing for a particular chronological order of the innovations involved. If questions of chronology cannot be satisfactorily resolved, it may not be possible to choose between the various possible genetic classifications.

Another corollary of the way that dialect differences arise according to the Genetic Model (a particular innovation occurring in some areas but not others) is that all branching should ideally be

binary (see Welmers 1973: 15-16).[5] Multiple branching in a tree is

equivalent to a mere statement of relatedness, without commitment as to

the specific innovations which led to the diversification, or their

chronology. Thus a tree such as:

$$P$$
$$a \quad b \quad c \quad d \quad e$$
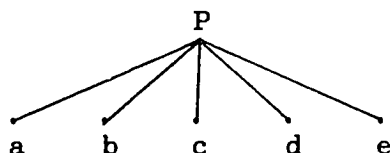
which some have referred to as a "brush" (see Anttila 1972: 303), tells

us only that a, b, c, d, and e are related and are descendents of P, but

says nothing further about their relationships or how they came to be

different.

3.4.2. The Shared Innovation Principle

So how does one determine whether two languages or dialects

shared a common history during some particular period? If earlier

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[5]"Language division usually appears to take the form of bifurcation; it
must be normally expected that the model for the origin of four
branches would be one of the following:

A three-way division from a single node is historically possible, of
course; but where there is adequate evidence for reconstructing
language history, few such cases have been demonstrated. References
to "coordinate branches" should not be taken as actual hypotheses of
multiple divisions from single nodes; they are more likely to be, by
implication, mere admissions that the order of bifurcation is not clear
from the evidence to date."

periods are not sufficiently documented by written records (the "fossils" of linguistic evolution), then recourse must be had to secondary evidence. It has long been recognized that the one tried-and-true type of evidence of this kind is the occurrence of an innovation which is shared by both dialects. This is what Hoenigswald (1960: 151) has called "the famous principle that subfamilies are established on the basis of 'shared innovations.'" It is analogous to the principle of textual criticism which assigns manuscripts exhibiting the same scribal error to the same manuscript tradition.

However it cannot be overemphasized that the feature in question must be an innovation. The shared retention of a particular feature of an earlier period in two or more dialects proves nothing about the proximity of their genetic relationship. For example, in Quechua dialects, the fact that Huaraz (Ancash) and La Unión (Huánuco) have both undergone a change č > ¢ does constitute evidence of a common period of history. But the fact that Sihuas (Ancash) and Huancayo (Junín) have both retained unchanged the proto-phonemes *c and *x as [č] and [ĉ] says nothing about their genetic relationship, other than that they both descended from Proto-Quechua, which we knew already.

This fact has not infrequently been overlooked by authors of various Family Tree classifications. We at times even find confusion on this point in the literature discussing the Genetic Model, such as the following:

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"We have so far dealt with two kinds of language classification, namely genealogical classification and areal classification. The first of these groups languages together into *language families* on the basis of shared features which have been retained during a process of divergence from a common ancestor..." -- Bynon (1977: 262)[6]

"Wherever two Indo-European linguistic families, say, Italic and Keltic, are shown by virtue of their position on the family tree to be more closely related to one another than each is to the other families, the implication according to the family tree is that they together continue a trait or traits of the Indo-European mother language." -- Pulgram, 1972: 238

"As Maps 2, 4, and 5 show, at this point, Low Frankish is much more closely allied with Low German than, say, with East Frankish." -- Hock 1986: 448.

(emphasis mine).

In the last instance, when one examines the three maps Hock refers to, it can be seen that what in fact "allies" Low Frankish and Low German are common retentions.
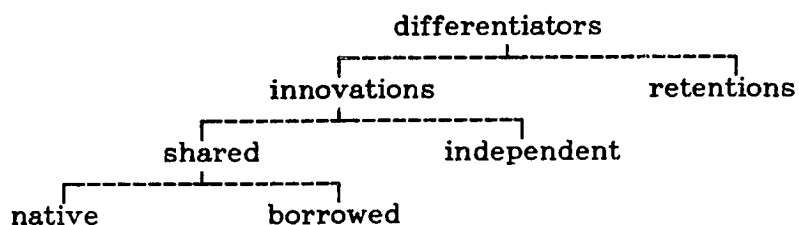
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[6]Elsewhere the author states the principle more correctly, as in, "Closeness of relatedness can therefore be seen to depend on the number of rules held in common." (op. cit. p. 64). From the context it is clear that "rules held in common" is a way of referring to shared innovations.

Virtually all of the authors of classifications of Quechua dialects have violated what can be called the "Shared Innovation Principle." In fact Parker is the only one that explicitly recognized it, and even he departed from it at times.

Important as it is to distinguish innovations from retentions, this is not sufficient. It is always possible for the same innovation to occur at different times and in different places, especially when the change is quite common or "natural". Such independent innovations of course are not evidence of any special relationship between the dialects that undergo them, and they must be carefully distinguished from innovations of the shared type. Thus the reduction of the past tense -rqa to -ra in both Tarma (Junín) and Santiago del Estero (Argentina) is no evidence of genetic proximity. These two are otherwise quite different dialects (probably really separate languages), which are very distant from each other geographically. Therefore it is highly unlikely that the loss of q in the past marker of each is the result of any special relationship between them, much less evidence of a shared common history.

It is also possible for an innovation to be borrowed from a neighboring dialect (more on this later). This type of shared innovation, which is due to contact rather than internal evolution, of course, does not constitute evidence of a shared common history lasting up to the occurrence of the innovation, as required by the Tree Model.

To summarize what has been said, in formulating a Family Tree, not all linguistic features that distinguish two or more languages or dialects are equally important for their classification into subgroups; in fact many are totally irrelevant for this purpose. Innovations must be separated from retentions. The former must be divided into independent and shared. Shared innovations must be further differentiated as native and borrowed. This classification of dialect differentiators may be graphically displayed thus:

```
                        differentiators
              ┌───────────────┴───────────────┐
           innovations                    retentions
       ┌──────────┴──────────┐
     shared              independent
   ┌───────┴────────┐
native          borrowed
```

Only native shared innovations are pertinent to the classification of the daughter languages or dialects into genetic groups and subgroups. To construct a genealogical tree on the basis of impressions of similarity, or to fail to clearly distinguish between innovations and retentions can only lead to less than satisfactory results. Granted, it is not always an easy task to make the above distinctions, and the necessary data is sometimes lacking. It is not surprising, therefore, that many investigators do not go to the trouble of trying to make them or are frustrated in their attempts to do so.

3.4.3. The Inclusion Principle

Once the irrelevant types of innovations (including borrowing) have been eliminated from consideration, assuming this can be done, the

geometry of tree structure may help to decide some questions of chronology. The principle involved, which I shall call the "Inclusion Principle," is that the greater the number of dialects sharing a particular innovation, the higher the node uniting them all goes in the tree, and therefore, the earlier the innovation in question is.

For example, consider four dialects, a, b, c, and d, which are variously affected by innovations I_1, I_2, and I_3. If the pattern of which dialects share which innovations is given by the following Differentiator Matrix,

	I_1	I_2	I_3
a	+	+	+
b	+	+	−
c	+	−	−
d	−	−	−

then the only possible tree showing these relationships is,
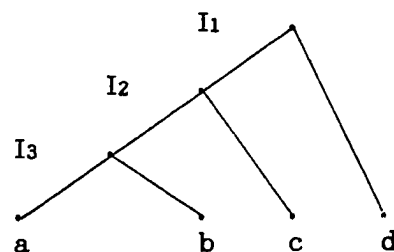
and I_3 must be later than I_2, which in turn is later than I_1.

There is another, most important consideration. All of the preceding discussion of innovations presumes that each of them has been properly formulated, that is to say we have a good idea of what the innovation actually consisted of. For example, given two dialects a and b, which have corresponding forms f_1 and f_2 for feature F, one

needs to know how f₁ and f₂ arose. Is f₁ or f₂ the innovative form, or are they both the result of changes? Obviously shared innovations cannot be distinguished from retentions unless this is known. But this, in turn, presupposes that we have a good idea of what the proto-form *F, from which they both derive, was. Innovations cannot be properly formulated unless we have some idea of the starting point. Therefore the proper Genetic Classification of a series of languages or dialects can only be based on prior reconstruction of the proto-forms and the elucidation of the evolutionary history of the resultant speech varieties. In fact the Family Tree may be viewed as simply a graphic representation of the latter. It is clear that many of the tree classifications proposed for various language families are not based on this kind of foundation and therefore do not meet the criteria for a true Genetic Classification..

3.4.4. Isogloss Bundles

Part of the reason that proposed Family Trees do not meet the standards outlined in the preceding section is that another criterion for tree formation is often cited and followed, namely that of "isogloss bundles." This term is applied to groups of two or more isoglosses which coincide in separating one group of speech communities from others. The assumption is that such configurations arise when the time depth of the separation is significant. The longer two groups have diverged, the greater the number of differences (represented by isoglosses) will be. The criterion often used to build Family Trees is

the converse of this, namely, the thicker the bundle of isoglosses separating two groups, the greater the time depth of their separation.

The application of this criterion is obviously intended to help establish the relative chronology of the branchings in the Tree. It is often cited and recommended as a basis for genetic classification, as in Bloomfield (1933: 342):

"Furthermore, a set of isoglosses running close together in much the same direction -- a so-called *bundle* of isoglosses -- evidences a larger historical process and offers a more suitable basis of classification than does a single isogloss that represents, perhaps, some unimportant feature."

It is clear, however, that Trees based on this criterion are very different in nature from those we saw earlier, that were based on the Shared Innovation Principle. A strict application of the Isogloss Bundle method is in essence nothing more than just counting isoglosses, which we examined in the section on Quantitative Classification. To this type of Quantitative Classification what has been added is the assumption that the counts so obtained correlate directly with the relative time depth of the divergence between the dialect groups which the isoglosses separate. As we saw, the primary result of the count is a Similarity Matrix. Statements about Isogloss Bundles usually imply that there is a simple algorithm to convert Isogloss Maps into Trees. This is simply not the case. In any event, no matter how this is accomplished, the result of counting isoglosses is more along the lines of a Similarity Tree.

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Can such Trees actually qualify as recapitulations of the evolutionary history of the dialects considered, which was the definition of a Genetic Classification given above? The Isogloss Bundle Assumption can be seen as being ultimately equivalent to the claim that similarity corresponds proportionally to closeness of genetic relationship. Though there may be a tendency for this to be so, it is not in general true, for a number of reasons. We saw above that only native shared innovations are relevant to Genetic Classification. Isogloss Maps, however, also group together dialects whose similarities consist of retentions and independent and borrowed innovations. Therefore the Isogloss Map is inherently incapable of providing all the information necessary for a correct Genetic Classification, i.e., a Family Tree.

Another reason that Similarity Trees derived by the Isogloss Bundle Criterion cannot qualify as true Genetic Classifications is because they can change over time.

Hock (1986: 448-49) Presents two very different classifications in the form of tree diagrams of Old High German dialects.[7] The first he calls a "prehistoric tree diagram" and the second a "synchronic tree diagram." He further observes,

"While there may have been a period during which there was an especially close relationship between the various Frankish dialects, the situation has changed considerably in the attested Old High

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[7] For some reason he labels these as "maps", "Map 6." and "Map 7." respectively.

German period. ... These relationships suggest a tree diagram very different from the one of Map 6. A more adequate representation would be the one in Map 7. This would capture some of the similarities and differences: ..."

Now obviously the genetic classification (evolutionary history) of a group of dialects cannot change through time. While one might make a case that his "Map 6." is a true Family Tree, his "Map 7." is clearly a Similarity Tree, as his comments about it show. What this illustrates quite clearly is, once again, that Similarity Trees are not to be taken as equivalent to Family Trees, i.e., true genetic classifications.

3.4.5. Wave Theory

The Family Tree Model, embodying as it does the claims of Linguistic Evolution, would seem to be difficult to deny. To do so would seem to require denying the validity of evolutionary frameworks in general or the possibility of applying any such to language. Yet this is precisely what many have attempted to do, including various of the authors of Quechua classifications which we have examined. In this section we will attempt to examine what motivated them and how the issues raised might be resolved.

Implicit in Linguistic Evolution and therefore in the Family Tree Model is the claim that the main effect of additional innovations is to further fragment the dialects that have developed up to that point. This is correct. A further assumption would be that innovations are

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restricted in this effect to the previously uniform communities where they originate, and which they end up dividing. I shall call this the "Local Effect Hypothesis." The claim this hypothesis makes might seem to be implied by the postulated mechanism of diversification, i.e., changes affecting "part but not all of a uniform population." This hypothesis, however, is incorrect; and in this, Linguistic Evolution is different from Biological Evolution. In the latter, acquired characteristics are not inherited by succeeding generations. In Linguistic Evolution acquired characteristics (loans of various types, as well as internal innovations) usually are passed on to subsequent stages of the language.

The truth is that innovations are not so restricted in their possible scope of application. They may spread well beyond the boundaries of the community in which they originated, to dialects which have long before diverged, or even to different (possibly unrelated) languages, provided there is sufficient social contact to facilitate the spread. To account for this a different theory of linguistic change was formulated, the so-called "Wave Theory".[8] According to it, innovations begin in a single location and then spread outward through time to encompass more territory, much like ripples on a pond spread from the source of disturbance. Innovations can originate in different locations,

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[8]This is usually attributed to Johannes Schmidt, whose proposal appeared in a small work entitled "Die Verwandtschaftsverhältnisse der indogermanischen Sprachen," Weimar, 1872. According to Coseriu (1977: 115) a similar idea with regard to the Romance languages had been proposed by Hugo Schuchardt some four years earlier. His work, however, did not appear in print until 1900. See also Hock (1986: 644).

and their effects can overlap making it possible for the same innovation to be shared with several adjacent dialects or languages. This means that isoglosses can cross and intersect with previously established linguistic boundaries, i.e., older isoglosses. The explanatory power of this model became evident several decades later when the results of extensive studies of dialect geography in Europe became available.

The Wave Model is often misinterpreted as being identical to the Isogloss Map we examined earlier. The two are not, however, equivalent. An Isogloss Map is a representation of the spatial linguistic facts at a particular point in time. It is therefore synchronic in nature. The usefulness of the Wave Model is in attempting to provide a diachronic explanation of how the situation depicted by the Map arose. Its important contribution is in pointing out why it is that isoglosses can cross.

The Wave Model does make a historical claim, namely that innovations move outward geographically through time and can overlap. Really the only correct way to depict this would be through a sequence of maps representing the various stages it posits (see Pulgram 1972: 239). This is hardly ever done in practice. Usually just the final stage, which might be called a "Wave Map" is represented with the assumption that, given the claims of the Wave Model, one would be able to imagine what the earlier stages looked like.

The Wave Map and the Isogloss Map, while potentially identical in form, don't necessarily deal with the same entities. Isoglosses may

represent any linguistic feature differing from one area to another (Dialect Differentiator). These may be the results of innovations, but this is not necessarily the case. What they depict can be (a) the final result of processes consisting of many innovations, (b) retentions, or even (c) cases where nothing is known of how the current situation arose. The Wave Model, on the other hand, deals only with innovations, and underlines the fact that these can spread geographically while retentions do not.[9] It is not surprising that the Wave Model and the Isogloss Map are often confused.

While it does account for how the diversity and complex relationships of later stages arose, the true Wave Model does not provide a basis for Genetic Classification.

3.4.6. The Family Tree Versus The Wave Model

A great deal of discussion has taken place over the years as to which of the two, the Family Tree or the Wave Model, provides the best view of language interrelationships, with the Wave usually being preferred. It has often been claimed that the Wave has proved the Tree model to be invalid, or that the facts of Dialect Geography are only amenable to wave treatment.

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[9]Retentions do not spread by definition. If a feature that is a retention in the source dialect is borrowed, it is an innovation in the target dialect. If a dialect that has lost a particular feature later regains it by borrowing, this is not due to the "spread of a retention," but rather to two innovations, the second cancelling the effect of the first.

Such has been the case with some who have attempted to classify Quechua dialects. Parker, who at earlier stages had used the Tree Model, when dealing with the Central dialects later, renounced his earlier attempts, as we saw, and concludes (1971: 46):

> "In the present study the family tree model must be abandoned. The Quechua B area of central Peru shows a great deal of differentiation but the many isoglosses are independently distributed to such an extent that only a wave model can accurately represent the linguistic facts."

Torero likewise rejected, as we saw, any possibility of a strict treatment according to the Tree Model and finally repeats, virtually verbatim, what he had stated in 1968 (p. 291):
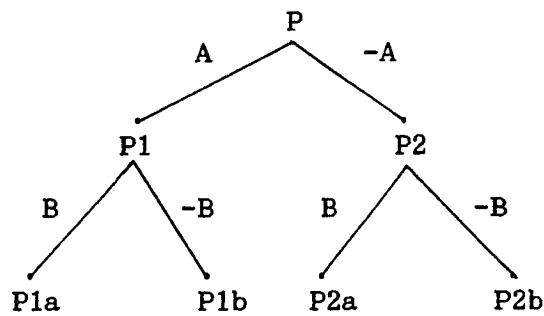
> "En todo caso, debemos destacar, como observación fundamental, la de las múltiples interrelaciones de los grupos y subgrupos dialectales, que desautoriza cualquier clasificación tajante por 'arbol' y 'ramas', y que, en consequencia, permite sólo una débil definición de las subdivisiones." (1974: 20).

Thus both authors reject the possibility of a Family Tree classification because of the effects of innovations which spread according to the Wave Model over different areas. Like others before them, they imply that the Wave Model is a refutation of the Tree Model, or perhaps more accurately, that the linguistic facts disprove the Tree Model because only in terms of the Wave Model can they be handled correctly.

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Such conclusions are probably more due to confusion about the nature of the two models than to anything else. Trees are thought to be incapable of representing situations where isoglosses cross, so the "family tree" is thought to have failed. Nevertheless, the evolutionary premises of the true Tree Model are very difficult to refute, and in fact nothing the Wave Theory claims contradicts them.

On the other hand when the Wave Model is confused with the Isogloss Map, the "wave" cannot lose, for it attempts only to accurately describe the present situation as it stands, not really making any historical claims. Due to the confusion, it is perceived as being more "realistic" or "true to the facts".

So how are wave phenomena handled by the Tree model? When an innovation spreads from its point of origin and affects other dialects in the area, what occurs is by definition a form of dialect borrowing. Obviously the borrowed innovation is chronologically subsequent to the one that gave rise to the different dialects in the first place, and therefore is to be represented by lower (parallel) branching in the tree. So, for example, if we have two dialects that were originally distinguished by an innovation A, and parts of the area of each subsequently undergo a change B, this would be represented according to the tree model thus:

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                    P
         A    /\    -A
             /  \
          •/      \
        P1          P2
    B  /\  -B    B  /\  -B
      /    \      /    \
   P1a    P1b  P2a    P2b
```

In this case dialects P1a and P2a do, in a sense, "share a common history," having undergone the same innovation B; but this is subsequent to their separation brought about by innovation A; and so it has no bearing on their genetic classification: P1a and P2a are no more closely related genetically than are P1b and P2b. This shows that the Tree Model itself does not disallow crossing isoglosses. It is the Local Effect Hypothesis which precludes them, and it is not really a part of the Tree Model at all.

Thus dialect borrowing, strictly speaking, does not invalidate the Tree model when the latter is properly understood. Such borrowing is merely subsequent innovation, even though it may have occurred at remote times. It may, however, have the effect of making it more difficult to arrive at the correct Tree, since the true history may be less readily recoverable. But even if borrowing is so extensive as to obscure everything but the original innovation, the branching based on that innovation is still valid. If the borrowing affects the results of the original innovation, then it may be difficult or even impossible to reconstruct the original evolution. This, however, does not invalidate the Tree model *per se*. Nothing guarantees that all past events are recoverable as history.

We saw previously that inclusion of dialects in the same subgroup is, strictly speaking, justified only when there is evidence of shared innovation. This condition is necessary but not sufficient. It only becomes sufficient if one can argue that the dialects in question were not previously differentiated by some chronologically earlier change. Where borrowing takes place, the dialects are by definition previously differentiated. Therefore if a shared innovation is due to dialect borrowing, it will be displayed in the tree just like independent innovations would be, and properly so: the purpose of a tree is display only those similarities that reflect genetic origin, not language contact.

But if the above Tree correctly displays the genetic relationship of the dialects, what it does not express is the fact that what caused P1a and P1b to diverge was the same process that resulted in the separation of P2a and P2b. This the traditional Tree cannot do. The main purpose of the Wave model, on the other hand, is precisely to show this.[10] What the Isogloss Map (a particular stage of the process treated by the Wave model) does not express is the relative chronology.

The point at which the Genetic model appears to break down is the situation in which one might describe borrowing as so extensive that all that remains of the original language or dialect is a substratum. There would seem to be little point to assigning a language or dialect to

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[10]As we noted earlier, isoglosses can, strictly speaking, express any observable difference between dialects. For the purposes of this discussion, they must be restricted to depicting only innovations, each one separating the areas that have undergone the particular change it represents from those that have not.

the group or subgroup of the substratum. In such cases it is probably best to recognize that the speakers have shifted languages and to consider the substratal features to be "loans" from the substratum into the predominant language. These, however, are a special type of "borrowing" in that they can involve very conservative features which would ordinarily be unlikely to pass from one speech community to another. The exact point at which the original language or dialect may be said to have been reduced to the status of a substratum may not be easy to define, but the extremes seem fairly clear. English, for example, remains a Germanic language even though its over-all lexicon is more similar to French than to German. On the other hand Spanish is clearly Romance in spite of its presumed Iberian substratal features. The problems that pidgins and creoles pose for genetic linguistics have long been recognized and cannot be said to have been totally resolved. Most authors of linguistically based classifications of Quechua dialects have resorted to considering one dialect or another to be of "mixed" origin. Methodologically, in the absence of independent evidence, one should be reluctant to employ this type of "explanation" as being too powerful. But in the end there may no plausible alternative, given very extensive dialect borrowing.

There is a very important consequence of the fact that dialect borrowing is irrelevant for determining genetic relations, namely that linguistic similarity is not a reliable indication of genetic proximity. Dialects which are the most similar linguistically are not necessarily the most closely related historically and vise versa. Dialect borrowing can

increase similarity, but genetic relationship cannot change through time.
This seems fairly obvious , but it is not infrequently overlooked in
practice, especially by those who take Similarity Trees (derived on the
basis of Isogloss Bundles, for example) to be genetic Family Trees. This
point should not be overlooked by those who argue for the validity of
lexicostatistics as a means of measuring the relative proximity of genetic
relationships.

Dialect borrowing causes another problem for those who try to
establish Family Trees on the basis of Isogloss Bundles. Such bundles
occur only where several different waves of innovation reach and stop
at the same boundary. This is most likely only where the barrier to
subsequent communication between the two dialect areas is quite
significant. Such strict separation seemed more necessary when it was
thought that linguistic change was the result of imperceptible random
changes over a long period of time. It was typically claimed that
divergence originated because of a "break-down in communication"
between the areas that diverged.[11] With what is now known about the
sociological basis for change, it is clear that such a cutoff of
communication is totally unnecessary. In fact it is hostile <u>contact</u> which
probably most frequently motivates and accelerates linguistic change.
People of one social group often introduce changes in their speech,
consciously or otherwise, in order to distinguish themselves from those
of other groups. Thus the so-called "received pronunciation" of the

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[11]This view of the mechanism of linguistic change is probably what
motivated the Local Effect Hypothesis, which, as we saw, is not really
part of the Tree model.

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English upper class is highly innovative rather than conservative. This is the result of attempting to maintain linguistic distance from a middle class that seeks to imitate the upper class norms.

In any event, the total absence of communication between different groups would be quite unusual in areas of a sedentary population not separated by major geographic obstacles. Without any very formidable barriers to communication there is no real reason for isogloss bundles to necessarily form at all. Given what is known about the history and prehistory of the Andean region with its intense trade from very early times, as well as the volatile politics of warfare, conquests, and shifting alliances, the complex dialect situation of crossing isoglosses, which frustrated the authors of Quechua classifications, is precisely what one would expect.

So what is the true relationship between the Wave and the Tree models? Most authors today see it as one of complementarity rather than conflict. Once the Tree Model is properly understood, it is not contradicted by the Wave. What the latter does directly oppose is the Local Effect Hypothesis, but this hypothesis is not an essential part of the Tree Model at all. On the other hand, as we have seen, the whole object of the Tree Model is that of Genetic Classification, i.e., to reconstruct evolutionary history. Thus it is forced to deal with the relative chronology of innovations, which may be difficult, and at times impossible to determine. The Wave Model is not concerned with chronology so much as the unity of processes through time and space. The Tree Model is not obliged to identify innovations as to their source

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whether borrowed or internal as the Wave Model is. Neither by itself captures all of the facts, both historical and distributional. What investigators have done, in claiming to abandon the Tree Model as inadequate, is in fact to abandon only its goal as too difficult or impossible to achieve.

3.4.7. On Building Trees

If the Tree displays the temporal aspect of linguistic change and the Wave displays the spatial aspect, is it possible to devise a model depicting both, and is it possible to derive Trees from Wave Maps? The answer to both questions would be affirmative if a chronological ordering of the innovations displayed can be added to the map. If the order can be determined, a three-dimensional display could be generated by lifting the isoglosses from the plane of the map in this order, the earliest highest, etc. Such a display, with the vertical axis representing relative chronological order, would depict both temporal and spatial aspects; and a unique Tree could readily be derived from it.

For example, take four dialects a, b, c, and d, which are defined by two isoglosses A and B, and are mapped as follows:
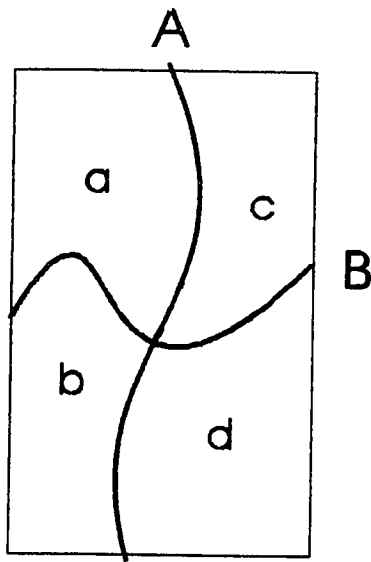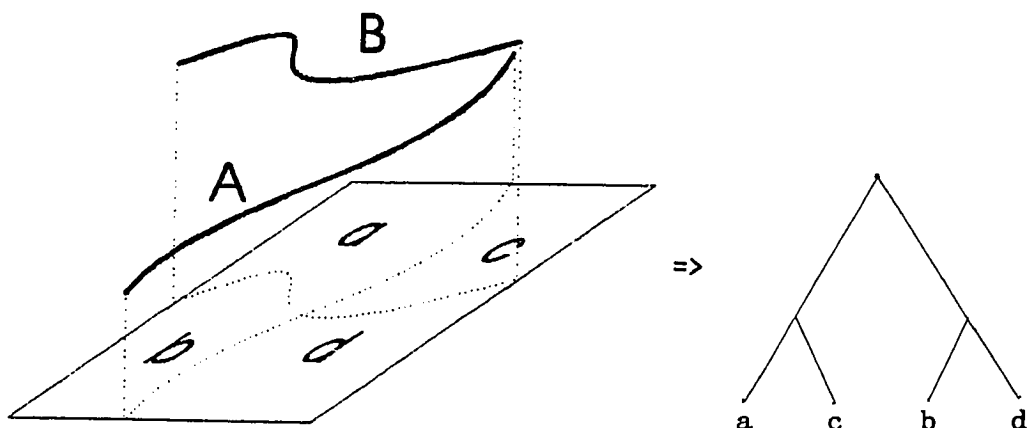
If it can be determined that A occurred earlier than B, the resulting 3-D display and corresponding Tree would be,
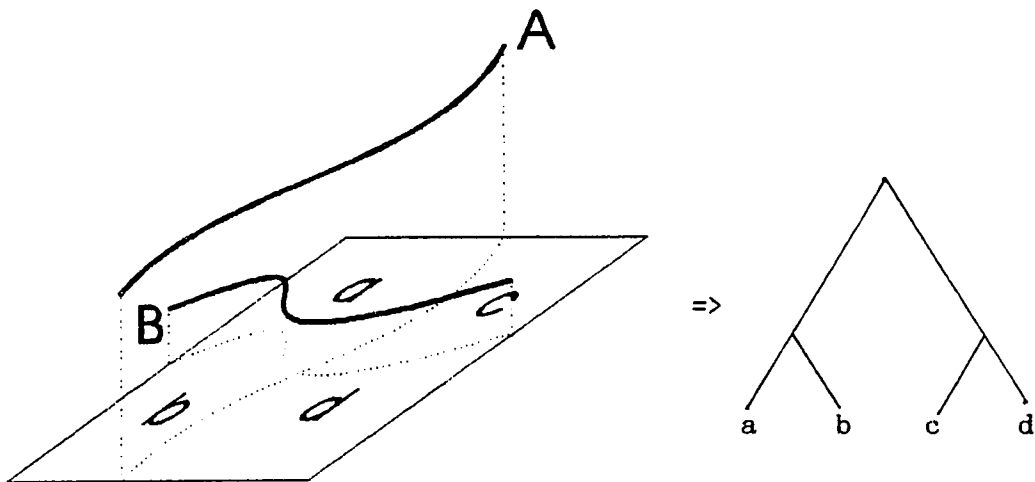
On the other hand, if B occurred earlier than A, then the result would be,

The difficulty is that often the only evidence we have for chronology is indirect. The Shared Innovation Principle can help, but shared innovations, like scribal errors in manuscripts, are only accidental. Even if two dialects did share a common history for a considerable period of time, there is no assurance that some shared innovation will witness to that fact. It is probably true that the longer the shared period, the greater the chances that some innovation will arise as evidence to it; but none is guaranteed. When, after examination of all the facts, the chronology still cannot be established, the tree structure is indeterminate between all of the trees generated by the various possible orderings of innovations. Perhaps a good way to graphically represent this indeterminacy is by multiple branching. In the case just examined, If changes A and B cannot be ordered chronologically, the indeterminacy would be expressed in a tree:

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        /|\
       / | \
      /  |  \
     a   b  c   d
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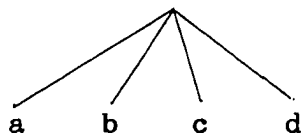
3.4.8. The Isogloss Map and History

If the isogloss map is designed principally to display the situation
at a particular point in time, is it completely irrelevant for history? Not
at all. It can be helpful in distinguishing innovations from retentions
as well as the basis for different types of deductions concerning
chronology.

We saw above how, in order to correctly classify according to the
Genealogical model, it is essential to distinguish between innovations and
retentions, and to determine which modern form is which. Isogloss maps
can of considerable help in doing this.

The vast amount of material now available on the nature of
linguistic change and how it is propagated make it possible to deduce a
series of principles which are useful in deciding which of two
corresponding forms is more likely to be an innovation and which a
retention. As we shall see, the geographic distribution of the modern
dialect features is especially helpful in this regard. All of these
principles have been known for some time; nothing here is original
except perhaps the way in which they are stated. In fact a whole
school of historical linguistics based on dialect geography developed
after the turn of the century, being in part a reaction to neogrammarian

theory, but founded on the results of the European dialect surveys conducted in the preceding years.

Matteo Bàrtoli, author of the famous anti-neogrammarian slogan that "every word has its own history" was one of the main formulators of what was called "Linguistic Geography," "Spatial Linguistics", or even "Neo-linguistics," and perhaps its most ardent proponent.

He summarized his principles of historical inference based on dialect geography in what he called four "areal norms." According to these, the more archaic of two geographically differentiated forms (i.e. the retention) is more likely to be found in:

1. areas least exposed to communication (norm of "isolated areas")

2. the more outlying areas (norm of "lateral areas")

3. areas more recently occupied (norm of "later areas")

4. the area covering the most territory (norm of the "greater area")

He admitted that the last of these was the weakest, and that it should cede especially to 1. and 2. in case of conflict.

Over the years a great deal of discussion has taken place regarding these "norms" and their validity. For a good summary see Coseriu (1954).

It should be emphasized that these are not exceptionless "laws" but rather general tendencies.

1. NATURALNESS

Given two cognate forms, the innovation is the one which can most readily be derived from the other by natural changes. Natural changes are those which are recurrent in languages of the world and are therefore more likely or "expected". They usually involve simplification or assimilation. The merger versus split distinction may be considered a matter of naturalness. Merger, the "central process in sound change" is natural, while split, which "cannot occur spontaneously," is highly unnatural unless it is a "corollary" of merger processes.

2. GENERALITY

Given a series of dialects or groups of dialects, retentions tend to occur in various divergent dialects, groups, or subgroup, whereas innovations tend to be isolated, specific to a single dialect, group, or subgroup. [This is in some ways analogous to Bàrtoli's "Norm of the Greater Area." However it is more specific and more reliable than the latter.]

3. CONTINUITY

Given a geographic area divided by isoglosses, an innovation tends to be distributed over a continuous area linked by lines of communication. A retention tends to occur in non-contiguous areas and scattered, unlinked patches. The reason for this is that, according to the Wave Theory, innovations spread, and this requires contact. Retentions do not spread.

4. PRESTIGE

Innovations tend to originate in centers of influence and then spread outward to the surrounding territory.

5. ANTIQUITY

Innovations are more likely to occur in the areas of oldest occupation. This is so because the language has had longer to evolve there. From this it follows that the greatest diversity and the most innovative dialects will be found in the areas of longest occupation, and that more recently occupied areas tend to be more uniform and conservative. [This is similar to Bàrtoli's "Norm of the Later Area".]

6. CENTRALITY

The central areas of a group of dialects will tend to be innovative, while the peripheral areas tend to be conservative. This is really deduced from criteria 4 and 5 (above), since ordinarily innovative influence extends outward from a center (4), and the conquest of new territory proceeds outward from areas of older occupancy (5). Peripheral areas are the last to be affected by central innovations. [This corresponds to Bàrtoli's "Norm of Lateral Areas."]

7. ISOLATION

Areas isolated from outside contact tend to be conservative, being less exposed to potential sources of innovation and their influence. [This is essentially Bàrtoli's "Norm of the isolated area."]

It can be seen that 1 and 2 are based on purely linguistic criteria, the concept of naturalness and genetic classification, respectively. 3 and 6 are based on geographic distribution. The bases of 4 and 5 are, respectively, sociological and historical. 6 is territorial in nature. However since it is based on 4 and 5, perhaps "centrality" in its strictest sense should be defined in terms of influence and original area of occupation rather than topographically. 7 has to do with density of communication.

These seven criteria may be summarized in the following manner: Given two alternate forms a and b, found in different dialects, the innovative form (IF) is determined thus:

1. If a > b is natural, but b > a is not, b is the IF

2. If a occurs in one branch, but b is in several, a is the IF

3. If the a area is continuous, but b is scattered, a is the IF

4. If the a area contains a center of influence, and b occurs in outlying areas, a is the IF

5. If the a area is the longest occupied, and the b area is more recent, a is the IF

6. If the a area is central and b peripheral, a is the IF

7. If the a area is high-contact and the b area is isolated, a is the IF

Alternatively, according to these same criteria, innovations and retentions may be characterized thus:

	INNOVATION	RETENTION
1.	natural result	unnatural result
2.	restricted	general
3.	continuous	scattered
4.	prestigious	non-prestigious
5.	old area	new area
6.	central	peripheral
7.	accessible	isolated

There are well-known circumstances in which these criteria do not lead to the proper conclusion, and it is good to keep these in mind.

a) If the change is a particularly natural one, it may occur in more than one area or dialect independently, contra criteria 2, 3, and 6. Divergence, continuity and centrality in fact are all based on the assumption of single origin and subsequent spread of an innovation. Independent, parallel innovation has also been called "parallelism" or "duplication". It goes without saying that distinguishing this from true shared innovation is one of the essential tasks of adequate classificatory work.

b) A wave of change may spread to other dialects or branches of the same family or subgroup, contra criterion 2. However, this spread across linguistic boundaries only occurs where the dialects are geographically adjacent or otherwise in close contact.

c) Migrations can give rise to unusual geographic distributions, contra criteria 3, 4, 5, and 6. In fact these criteria are based on the

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assumption of a relatively sedentary population and were proposed on the basis of examining areas where this had been true for long periods of time (Europe). The corollary of 5, that dialect diversity in a relatively small area is characteristic of the original homeland or point of origin, is contradicted if the diversity results from various groups having migrated together from different areas. Nevertheless, in migration what moves is not a linguistic trait but a whole dialect, which, if examined in its entirety, will often yield clues as to its point of origin. In any case, careful scrutiny of all the pertinent isoglosses and their distribution frequently allows one to distinguish a case of juxtaposition of different dialects from one of diversification by internal evolution.

d) The influence of substratum can give rise to rather unexpected changes, contra criterion 1. Also newer peripheral areas are more likely to be subject to substratal influence, contra criteria 5 and 6. It should be kept in mind, however, that in the absence of independent evidence of the existence of substratal influence, it is logically entirely circular to posit such influence in order to account for otherwise unexplained linguistic phenomena.

4. TOWARD A QUECHUA CLASSIFICATION

4.1. EVALUATION OF FORMER CLASSIFICATIONS

How then should the previous classifications of Quechua surveyed in Chapter 2 be evaluated in the light of the theoretical issues that have just been considered? We shall take this up now.

4.1.1. PARKER 1963, 1969-1971

As we saw, the Parker's 1963 paper was mostly concerned with delineating the two major groups of dialects he had become aware of (Quechua A and Quechua B) rather than with finer subgroupings within each of them. These groups and their subgroups are established largely on the basis of a series of shared features (i.e., dialect differentiators). Since there is no explicit attempt to apply the Shared Innovation Principle, the classification proposed might be considered more Categorial rather than Genetic in type, despite the author's intent as revealed in the title.

PARKER 1969a, d, on the other hand, is a serious attempt to arrive at a Genetic Classification of Quechua dialects based on the Shared-Innovation Principle, the only one undertaken by anyone. In Part I (1969a) we are given the Tree which he proposes, and in Part IV (1969d) we find a careful enumeration of all the innovations on which each branch is based. Even here there are methodological lapses such as when he tells us,

"It should also be mentioned at this point that the initial branching posited for Proto-QA is based almost solely on the observation that the Cajamarca and Amazonas dialects retain a two-way positional contrast of affricates otherwise recorded only in QB."[1] (1969a, p. 75)

and,

"I have grouped Pulucate and Caliata together on the basis that these dialects do not share in the irregular developments seen in several Colta suffixes...." (1969d, p. 163).

Here he is basing a subgrouping on a retention.

The main division into A versus B dialects (in Parker's terms) is no longer based on the nine features he earlier ascribed to QB.   Torero had shown that

(a) Three of these, the Limitative -yaq, the Perfect -ška, and the Verb Plural -yā, are only found in part of the QB area.

(b) Another three do not occur in all the same dialects as the typical QB 1st person markers.

Adhering, as we said, to the Shared Innovation Principle, he bases the division instead on the three presumed innovations we saw earlier, namely those affecting the 1st person subject and possessive markers,

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[1]This was later corrected in 1969d where three separate innovations were cited to justify the Cajamarca-Amazonas branch.

(1POS and 1SU), the 1st person object marker (1OB), and the Ablative case marker. Each of these changes, which are certainly controversial, will be dealt with later in this chapter.

Even though Parker tried to follow the Genetic methodology with regard to his internal classification of Quechua A, he abandons it entirely when, a year and a half later, he takes up the evolution of Quechua B:

"In the present study the family tree model must be abandoned. The Quechua B area of central Peru shows a great deal of differentiation, but the many isoglosses are independently distributed to such an extent that only a wave model can accurately represent the linguistic facts. The mixed tree-plus-wave classification of QB dialects in CQPG-I (Parker 1969a) does have a certain intuitive plausibility, but since it mixes linguistic and political factors it will be of little use in the present context." (1971, p. 46)

To display his results he now defines twenty different "lects" according to their linguistic features and charts them in what we called a Differentiator Matrix. Some 34 communities of the Central area are assigned to a particular one of these lects and located on a map. The linguistic features of his Matrix are not simply dialect differentiators (which could include retentions) but rather are all formulated as innovations. Each lect is marked as to whether it undergoes a

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particular change or not. The innovations are not ordered hierarchically.

4.1.2. TORERO 1964, 1968, 1970, 1983

Torero initially defined his major division in terms of two differentiators: (1) occurrence of contrastive vowel length and (2) -r as the form of the switch-reference same-subject marker, the defining characteristics of his Quechua I. Since no consideration is given to possible innovations as opposed to retentions, he seems to be clearly following the Isogloss Bundle method. In fact he expresses concern mainly with the fact that the isoglosses do not really form clear bundles on which to base the subdivisions of this group.

> "Este sector del quechua está bastante subdialectizado, y es difícil hacer la separación en subgrupos porque buena parte de los rasgos fonológicos y gramaticales diferenciadores presentan áreas de difusión no coincidentes. Estimamos, sin embargo, que la suma de los rasgos lingüísticos examinados para la zona da fisonomía propia a ciertas hablas y autoriza a agruparlas en los siguientes dialectos:" (p. 472)

This gives the impression that he did some sort of tabulation of features in order to arrive at the subdivision, but he does not tell us what they were and what the basis for selection was.

His IIA subgroup, as we saw, is set up on the basis of six features common to its members. Of these, three are clearly retentions;

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so it is obvious that he makes no attempt to hold to the Shared-Innovation Principle. We also saw how in Torero (1968) he was forced to reduce the bundle of isoglosses defining the major division (if two can be considered a bundle) to a single isogloss, a fact which he lamented but which did not deter him.

His suggestion in 1983 that perhaps Pacaraos constitutes a branch on its own, separate from QI and QII, is also based on the criterion of shared features and the lack thereof. No presumed evolution is alluded to and no innovations that might be involved are cited.

> "Tales peculiaridades: morfema /-y/ para marcar tanto la primera persona nominal cuanto la verbal, y el acento automático en la vocal de la sílaba que cierra, podrían ubicar mejor a Pacaraos como un dialecto intermedio entre Q.I y Q.II, o, más aún, en definitiva, como un tercer conjunto por sí sólo, al mismo nivel del Wáywash y el Wampu, conjunto cuyo único representante actual sería el dialecto pacareño."

He does not go so far as to actually use the term "Q.III" that this statement implies, nor does mention the implications it has for his long-held Pacaraos-Ferreñafe connection as part of his IIA subgroup, which he had repeated earlier in the article.

Torero's application of Lexicostatistics produced results that are not surprising, given the high degree of interaction between communities which is typical of the Andean area. Communities which are not very distant from one another show high lexicostatistical

percentages no matter what other isoglosses separate them. On the other hand, communities that are quite distant show lower percentages no matter what other features they have in common. His lexicostatistical results therefore tend to contradict rather than support a number of his classificatory claims.

4.1.3. TAYLOR 1979A 1979B 1984

Though he does not state his methodological assumptions, Taylor clearly also groups dialects according to shared features, i.e., the Isogloss Bundle method. What is somewhat different in the approach he takes in his latest work is that he abandons the attempt to classify the problem dialects of Lima Department and Northern Peru calling them instead "mixed" dialects. We will return below to the topic of "mixing" and the methodological implications of appealing to it as an explanation.

4.1.4. ADELAAR 1984

As we noted earlier, the main purpose of this paper was to account for the rise of vowel length in Central dialects and to propose a new reconstruction of the 1st person marker for Proto-Quechua. In connection with this Adelaar considers the question of the relationship of the dialect of Pacaraos (Huaral, LIMA) to Torero's two main groups of dialects, QI (the Central dialects) and QII (the other three areas). He proposes that the earliest change, which caused the split between these two major groups, was that giving rise to long vowels in QI and Pacaraos. In his view, the latter two also share a rule of "vowel

lengthening," so his decision to group Pacaraos together with QI is based on their sharing these two innovations. He therefore recognizes the Shared-Innovation Principle, and intends to adhere to it, though he applies it only to Pacaraos, QI and QII.

With regard to the innovations he cites, practically no one else synchronically describes the long vowels of the Central dialects in terms of a "vowel lengthening rule," so its "rise" is not a historical change others would subscribe to. As he admits, most investigators have instead opted for its converse, a rule of vowel shortening applying in closed syllables. Such a rule is really just a constraint on possible syllable structure (see Weber and Landerman 1983), which may have applied from the time long vowels first appeared on the scene. In this case it would have never "arisen" as a historical change.

4.1.5. CERRON-PALOMINO 1980, 1987

In his 1980 monograph Cerrón-Palomino underscores the lack of a clear-cut division between the two main groups of dialects posited by Parker and Torero (see the quote in Ch. 2).

He rejects the Tree model as being "unrealistic", and concedes to it only "didactic" advantages over the Wave model, which he says is

"advisable in rigorous work."[2] In this he seems to follow many others
in failing to understand the basic complementarity of the two models,
which was reviewed in Chapter 3.

In his 1987 work Cerrón-Palomino discusses at greater length the
methodology and goals of Quechua classification.: For example, we read:

"El estudio de éstos [the Central dialects] constituyó la pieza

clave para comprender mejor la historia del quechua. Los

trabajos comparativos y reconstructivos permiten ahora, si bien

tentativamente, una clasificación interna de las hablas quechuas

basada en el ordenamiento de los rasgos, fundamentalmente

fonológicos y morfológicos, que caracterizan, como producto de

una "historia común", a unos dialectos (o grupos de dialectos)

frente a otros. ... En adelante, toda compartición o desmembración

será postulada atendiendo a la comunión o disparidad,

respectivamente, en el trato de ciertos rasgos estructurales por

parte de las variedades estudiadas." [emphasis mine]. (p. 223)

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[2]"Conviene señalar que tales ramas... no constituyen entidades nítidas,...
entre una y otra rama se dan una serie de transiciones que a primera
vista denuncian el carácter arbitraio de toda agrupación dialectal. ...
como Parker y Torero lo señalan, de los dos modelos de agrupación que
ofrecen la lingüística histórica y la geografía dialectal --el árbol
genealógico y la martiz de ondas-- sólo la matriz úndica... podría
reproducir parcialmente con mayor realismo el mosaico dialectal
quechua." Notice that he also makes the common error of confusing
Dialect Geography with the Wave Model. Regarding the "reality" of
trees note also, "...puede postularse el siguiente esquema genealógico
aproximado, tal como lo hacen Parker y Torero, aun admitiendo el
carácter lingüístico y dialectalmente irreal de los árboles genealógicos."

Here he seems to be saying that the goal is definitely historical but that the methodology will be that of selecting _features_. This appears confirmed when he says,

"Es esta realidad intrincada ... la que deberá ser "ordenada" por el clasificador. Para ello será preciso compulsar las diferentes isoglosas de modo de seleccionar aquellas que permitan develar de la manera más nítida posible ciertas configuraciones idiomáticas en oposición a otras." (p. 223)

From these passages it is difficult to tell if he means to reject the Shared-Innovation Principle or if he simply fails to understand it. He properly characterizes Parker's method in 1969a, d:

"Crucial para Parker es, por ejemplo, el que en un determinado momento de la evolución dos o más variedades participen o no de una innovación." (p. 225)

In the context of a discussion on the classification of Pacaraos he says,

"Creemos que por lo menos los criterios particionales de orden léxico ... deben ceder ante aquellos que se basan en _innovaciones comunes compartidas_."

and immediately above he had affirmed:

"Pacaraos aparece compartiendo con el QI por lo menos dos cambios en común: la contracción *aya > a: y la _no retracción_ del acento tras el apócope de *V̆-ya." p. 227. [emphasis mine].

Of course the latter "change" is really a retention.

Whatever the intent of the above passages, it is clear from what he does in practice that Cerrón-Palomino strictly follows Torero in his methodology, as well as in his classification. He applies the Isogloss Bundle method without being overly concerned about the appearance of subjectivism when the "bundle" is reduced to one or when it consists of isoglosses which do not fully coincide.

4.2. TOPICS IN THE EVOLUTION OF THE DIALECTS

Now that we have examined the methodologies of previous classifications, it will be convenient to look at several topics in the evolution of Quechua dialects since they will provide a background for the consideration of the overall problems for Quechua classification which remain to be resolved.

4.2.1. ASPIRATION AND GLOTTALIZATION

One controversial issue concerning the phonology of Proto-Quechua is the question of whether or not it contained aspirated and glottalized consonants such as those found in the Cuzco and Puno areas of Peru and the dialects of Bolivia. Such so-called "complex" stops[3] are also found in Aymara, whose sister language, Jaqaru, likewise exhibits aspirated and glottalized series. The North Peruvian and Central

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[3]The affricate č is included since it also occurs aspirated and glottalized.

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dialects, as well as the Southern dialects of the Ayacucho area and Santiago del Estero, do not have such series.

The question is whether the dialects that do have them have preserved an archaic feature of Proto-Quechua or have acquired them, presumably through Aymara influence. The latter position was adopted already by Max Uhle in 1910. It was also maintained by Ferrario (1956: 137-140), Parker (1963:248), Torero (1964:463-4), and most others since. Two notable exceptions are Orr. and Longacre (1968) and Proulx (1972, 1974). The former reconstructed complex series for their version of Proto-Quechua, which they then compared with Aymara to arrive at their Proto-Quechumaran. Proulx supported his position by appealing to what he felt were reflexes of complex stops in the Central dialects. In this he was opposed by Parker (1973) who, successfully in my opinion, refuted this purported evidence.

What makes claims for complex stops in Proto-Quechua suspect from the outset is that only those dialects in close proximity to Aymara have "preserved" them. Orr and Longacre justified their reconstruction by pointing out that aspirated stops are found in the distant dialects of Highland Ecuador corresponding to the complex stops in the South. But the Northern dialects are an independent witness for Proto-Quechua only if they do not have a close relationship with Cuzco, either through extensive borrowing or a shared common ancestor. Torero assumed the former and Parker the latter, as we will see later.

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Those who hold to the theory that Quechua complex stops are borrowed from Aymara usually point out that their phonological distribution is highly restricted in Quechua. They occur only in roots, never in suffixes, only once per word, only on the first stop of a word, etc. These restrictions are not true of Aymara. This, it is contended, is evidence for their having been borrowed.

Perhaps the simplest way to look at these restrictions is to consider the "modifications" (aspiration and glottalization) to be features of the whole word. Once you know that a word is glottalized, for example, you know that the glottalization will actually appear on the first stop in the word, no matter how far it is from the front, as in

hurayk'uy   'Get down!' [Cochabamba].

Of course it is not the case that such restrictions are necessarily evidence that such segments were borrowed. They are simply rules of the language, and they may well have originated by sound change, as in the case of Grassmann's law in Indo-European.

While it is true that these exact same restrictions do not apply in Aymara, it is not the case, as has often been contended (Hardman 1985: 623), that no restrictions govern the occurrence of such segments in that language. To my knowledge those that do apply have never been pointed out.

It is often observed that complex stops in Aymara may occur more than once per word, as the second stop in a word, as well as in

suffixes. While this is correct as far as it goes, if their distribution were truly unrestricted we would expect to find nine different patterns in two syllable roots, namely:

CVCV   CVCʔV   CVCʰV

CʔVCV   CʔVCʔV   CʔVCʰV

CʰVCV   CʰVCʔV   CʰVCʰV

Going through a rather large dictionary such as that of De Lucca (1983) we find that with very few exceptions, only three patterns occur. If the two stops have the same point of articulation they will agree as to aspiration or glottalization, for example, *tʔantʔa* 'bread'. If the two stops have different points of articulation, the patterns are different depending on the specific stops involved, but we still basically find only three contrastive patterns. For example, a *q* following a glottalized *čʔ* will be plain, but a *p* will be aspirated, as in *čʔaqa* 'drop of liquid', but *čʔapʰi* 'thorn'. Minimal pairs with the contrast only in the second syllable are exceedingly rare, as are forms with only the second stop modified. The illustrative form Hardman cites to the contrary (1985: 623), taqʰa- 'look for', is from Soqa, Peru. The same form in De Lucca is *tʰaqʰa-*.

What this means is that though the two languages appear superficially different, in reality the capacity for lexical contrast is just as restricted in Aymara as it is in Quechua. For Aymara it is possible

therefore to consider the aspiration, glottalization, or lack thereof in the second syllable to be entirely predictable in the vast majority of cases. This means that given Aymara *t'ant'a* 'bread' and Quechua *t'anta,* one cannot assume, as he might have, that Quechua necessarily borrowed the term from Aymara rather than the other way around. In Aymara a form like *t'anta,* though probably pronounceable, would not be the normal pattern.

Stark (1970) takes up the task of investigating the native or derived nature of the complex stops in Cuzco and Bolivia. Most have found her evidence and arguments for their having been borrowed from Aymara to be totally convincing (Mannheim 1985: 658, Hardman 1985: 624, Cerrón-Palomino 1987: 355, etc.). Her methodology was to take 300 Cuzco roots having aspiration or glottalization, check them in Southern Bolivian and Aymara, in the former case for agreement in the modification and in the latter for cognacy. She then took another list of 300 items not having modified stops and compared them in the same way. She found that 67% of the Quechua vocabulary having modified stops was similar in form and meaning to Aymara vocabulary. The result with the vocabulary without modified stops was only a 20% rate of cognacy. This, in and of itself, would seem to be quite significant evidence in favor of an Aymara source for the modified vocabulary.

Then she compared the two Cuzco vocabularies with Quechua forms from Ayacucho (Southern) and Huaraz (Central), two areas where the modified stops are absent. The list containing modified stops turned out to be 89% cognate with Ayacucho and 62% cognate with Huaraz. The

same was done with the list not containing modified stops and the results were 96% and 76% cognacy with Ayacucho and Huaraz respectively. She argues that the difference in the cognacy rates for Ayacucho and Huaraz of the two lists (7 to 14%) also is an indication that the roots with modified stops in the south are Aymara loans.

As one result of the exercise, Stark notes that she found a number of exceptions to the Cuzco-Bolivian correspondences Orr and Longacre had set up in the reconstruction of their Proto-Quechua. Based on these she goes so far as to say,

> "It is apparent from our data that the correspondences set up by Orr and Longacre for glottalized and aspirated stops in Bolivian and Cuzco Quechua simply do not hold up."

This is true if by "hold up" she means "are exceptionless." Otherwise her statement is simply an exaggeration, for in the vast majority of cases the correspondences are valid. The situation also improves when one takes into account the fact that certain of the correspondences set up by Orr and Longacre were not properly formulated, and that in some cases other sources contradict Stark's Cuzco and Bolivian data. Nevertheless she argues that the lack of regularity is evidence that the terms are borrowed in both dialect areas. This, of course, does not follow. Exceptions do not prove the correspondences invalid, much less that the terms are borrowed.

But there are other conclusions lurking in the figures Stark gives, ones that she does not seem to recognize. Most significant is the

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admission that a full 62% of the roots containing modified stops have cognates in Huaraz. Now Huaraz is a Central dialect, the group presumably most distant from Cuzco genetically; and of the Central dialects, it is one of the ones furthest from Cuzco geographically. Therefore virtually any Cuzco item having a Huaraz cognate can be reconstructed for Proto-Quechua. If 62% of the "modified" vocabulary are native Quechua roots, there would seem to only four possible explanations:

1. In 62% of the cases Cuzco introduced aspiration and glottalization into native roots by some unknown process rather than adopting it through loan words.

2. Not only Cuzco but even Huaraz borrowed from Aymara, possibly via Cuzco.

3. The Aymara forms were borrowed during the Proto-Quechua period, before Cuzco and Huaraz separated.

4. It was really Aymara that borrowed these forms from Quechua rather than the other way around.

The last three are disastrous for the whole idea of demonstrating that there were no modified stops in Proto-Quechua. (3) and (4) would directly imply that there were. (2) would eliminate the geographic proximity argument, which is the whole underpinning of the Aymara influence hypothesis. (1) pretty much undercuts Stark's thesis that Aymara loans are the main source of modified stops in Quechua. They

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could still be the _original_ source, but the _main_ source would be the unknown processes that introduced them into native roots.

In cases where foreign features are adopted into a language, it is usually the case that the majority of their occurrences are in recognizable loans. For example clicks are ordinarily not found in Bantu languages. Zulu and Xhosa are two that do have them, but the vast majority of clicks occur in loans from Namibian languages, where they are normal.

This does not, of course, argue that Proto-Quechua _must_ have had modified stops, but it does show that the case against them is not nearly so air-tight as many have assumed, and in fact has serious problems.

4.2.2. "MIXED" DIALECTS

Are there such things as "mixed" dialects and to what extent is it methodologically legitimate to appeal to such? There is a sense in which any type of dialect borrowing is really "mixing," so it cannot be totally denied as a real process. But if one does not methodologically place severe limitations on the way he employs this device as an explanation, it becomes so powerful it can explain away virtually anything. In the absence of concrete evidence to the contrary, it is usually restricted to influence from contiguous dialects. Of course all sorts of things can and do happen in the real world, but once again we must remember that, due to the limitations of the methodology, not all past events are

reconstructible as history. Action at a distance and movements of populations should be resorted to as an explanation only when a series of independent facts point in that direction and all other hypotheses have been examined and rejected.

One is definitely tempted to fall back on this type of "explanation" when it comes to dialects like Lambayeque. In general it is quite similar to the dialects of Cajamarca but exhibits certain features otherwise found only in some of the Central dialects, as Torero pointed out already in 1968, when he published the first report on this dialect. Taylor, who has also worked in this area, adds a few more items to each list (Taylor 1982). Among these features are:

1. *aya > a in the verb roots *ĉa-* 'arrive', *ša-* 'stand' and in the Modals *-ra* (< -*raya) Continuative, *-pa* (< *-paya) Repetitive, and *-na* (< -naya) Desiderative.

2. ñ > n in the roots *nawi* 'eye', *punu-* 'sleep', *wanu-* 'die', *wina-* 'grow', and *nawpa* 'before', but not in *ñati* 'liver', *ñaqsa* 'comb', *quñu-* 'warm', nor *ñuñu* 'breast'.

3. *z > ∅ initially in the roots   *uk* (< *zuk), *urqu-* 'remove', *upay* (< *zupay) 'devil'. Doublets occur in the case of *ita-* or *sita-* 'throw out' and *ama-* 'breathe' but *sama-* 'rest'. The change does not occur in *saka* 'guinea pig' nor *sirka* 'mountain'.

4. The 1st person object marker (1OB) is *-ma.*

5. The switch-reference same-subject marker is *-r.*

6. A modal *-ski* is found, meaning 'do meanwhile.'

7. The verb for 'go out' is *yarqu-*

The roots in (1) are among those that <u>do</u> undergo this change in the Central dialects (others do not). The depalatalization of (2) occurs in Central dialects north of the Huanca area in Junín Dept. and seems to be slowly moving northward. It has not yet affected Huanca in the south, the eastern dialects of Huánuco nor Corongo, the northernmost dialect of Ancash. The roots in (2) which undergo the change are among the ones which are usually the first affected by it in Ancash and Huánuco. In addition, *ñaqsa* 'comb' (< *ñaqca) seems to have undergone the change *c > s, which has occurred in southern Ancash, northern Lima, and adjacent areas in Huánuco.

The change in (3) affects a good portion, but not all, of the roots with initial *z through out the Central dialects changing it to /h/. Jauja (Junín), which is very conservative with regard to this change, and certain dialects of Yauyos (Lima) form the main exceptions. In the northern part of Ancash Dept. initial /h/ is lost.

The root *yarqu-* of (4) is typical of virtually all the Central dialects, though *lʸuqši-* is found in eastern Huánuco. A modal *-ski* occurs only Ancash and adjacent areas of Huánuco.[4]

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[4]Cerrón-Palomino refers to the Ancash modal as "-*ški*" (1987: 232, 234, *et al.*). This is simply in error.

The above would seem to be an overwhelming amount of evidence

linking Lambayeque to the Central area especially some place around

central or western Ancash. Upon closer examination however, the case

is not nearly as clear as it at first seems. Consider, for example, the

following facts:

1. Cajamarca also has -ra, -pa and -na for the Continuative,

Repetitive, and Desiderative, respectively.

2. The forms ñaqca and quñu- are also among the first forms to

be affected by the depalatalization, but are not here.

3. The form *zupay has never been reported to have undergone

the change in the Central dialects. *zaka (which is the typical Central

form for guinea pig) undergoes the change everywhere in the Center

except in Jauja, which is not affected by this change at all. In all

Central areas where the form *sirka is found, it has undergone the

change. The loss of initial /h/, which at first glance might seem to

point to contact with northern Ancash, is not particularly significant,

since all of the North Peruvian dialects have undergone this change.

4. Until we have a better idea about how the -ma versus -wa

differentiator for the marking of 1OB came about, it is not possible to

say how significant the occurrence of -ma in Lambayeque is. Parker

(1969b) reconstructed *-ma as the proto-form, in which case it would

not be particularly meaningful.

5. A number of dialects of Huánuco and Ancash have both -*r* and -*špa* as switch-reference same-subject markers (see Weber 1989, p. 298), which would indicate both were present in the proto-language. If this was so, then the only change involved in producing dialects like Lambayeque and the Central dialects having only -*r* is the generalization of this form at the expense of the other. This could well occur independently in different areas.

6. The -*ski* of Ancash has a quite different meaning from that of Lambayeque. The latter corresponds fairly closely to a modal -*čka* which occurs in the southernmost of the Central dialects. Torero did not go so far as to claim that the two -ski's were cognate.

7. The form *yarqu*- is made up of two proto-morphemes, a verb *ya- and a modal *-rqu. The latter meaning 'outward' was seen in chapter 2. The former now only occurs fused with Modals such as *-yku 'inward', e.g., *yayku*- 'enter'. In all likelihood it is the source of the verbalizer -*ya* 'become'. This means that the combination *ya-rqu- could very well have existed in the proto-language, so the comments under point (5) above would also apply to it.

The point of all this is not to simply dismiss the possibility of Central influence, but to show that the case for it is not as unquestionable as it might at first seem. Taylor considers all of the North Peruvian dialects to be "mixed" (1979a, 1984). As long as we do not have a clear picture of what the proto-language looked like with regard to some of these features, and as long as we do not know how

or when the North Peruvian dialects broke off, either individually or collectively, such a conclusion would seem unwarranted on purely methodological grounds and could easily lead to circularity of argument.

4.2.3. VOWEL LENGTH

One of the features which is constantly cited as setting the Central dialects off from those of all other areas is the occurrence of contrastive vowel length. Naturally one would like to know if this was also a feature of Proto-Quechua. Methodologically one is led by the Comparative Method to reconstruct for the proto-language any contrast found in a daughter language which cannot be otherwise explained as a secondary development. That is to say, mergers are natural, splits are not.

At the present time, long vowels are of fairly high frequency in running text of most Central dialects, but not nearly as frequent as short vowels. Many of those found today are attributable to Spanish loans where the accented vowel in the source language is interpreted as being long in the target language. For example, Spanish "carro" is borrowed as *kāru* in the Central dialects.

When this source of long vowels is eliminated, the remaining cases are restricted for the most part to the following environments:

1. within certain roots such as *qāra* 'maguey leaf'.

2. as the final vowel of certain verbs, as in *rikā-* 'see'.

3. in certain suffixes, as in -*nā* Desiderative, -*mā* 1OB, etc.

4. as a result of the morphophonemic effect of certain suffixes which always lengthen the preceding vowel, as in *šamu-:qa* 'he came.' (<*samu-rqa) in the dialect of Alis [Yauyos, LIMA].

5. as the marker of 1st person (both 1SU and 1POS).

The source of some of these can be a local change as in the case of (4). Here the morphophonemic effect of lengthening is a result of compensatory lengthening when a consonant was lost. The proto-form for the past tense is *-rqa, the form which occurs in most other Central dialects.

Others are the result of a more general change within the Central dialects, namely *aya > ā. This produces certain of the cases in roots (1) and suffixes(3), as in,

Central	Southern	
qāra	*qayara*	'maguey leaf'
-*nā*	-*naya*	Desiderative

Though it is often invoked as a source of long vowels this change falls short of explaining them all. Only a certain number of roots undergo it, as is in *ĉā-* 'arrive' (< *xaya-) but *qaya-* 'call' (< *qaya-). Certain of the suffixes have no identifiable source with an *aya sequence, as is the case with -*mā* (1OB) but -*wa* in the Southern dialects. A few roots such as *pūka-* 'blow' are of uncertain etymology.

Is this cognate with the Southern form *puku-* ? If so, it would be a

unique occurrence of a correspondence $\bar{u}$: *u.*

Since a certain number of the long vowels can be seen as

secondary developments, and since their frequency in native roots is so

low, one is reluctant to posit them for Pre-Proto-Central and even more

so for Proto-Quechua. For more on their occurrence and Southern

cognates see Parker (1971).

Of course much has been made of (5) in the various attempts to

reconstruct the 1st person markers for Proto-Quechua.

Adelaar (1984) addresses the issue of the source of long vowels

and attempts to explain their current distribution. Basically he argues

that they first arose in certain roots and certain suffixes through the

famous change *aya > $\bar{a}$.[5] Then, he says, this gave rise to some roots

and some suffixes ending in $\bar{a}$. This was then extended to "some other

roots and all other suffixes" ending in *a.* There could be something to

the suffix case, but the *ad hoc* nature of this "explanation" of the verb-

final long vowels is all too obvious.

A number of the long vowels of the Central dialects therefore

remain a problem. We are extremely reluctant to posit them for Proto-

Quechua, but we can't quite make them go away completely in the

Central dialects either.

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[5]Few minor changes have ever been so overworked in the literature as
a putative explanation. The reason is that, questionable as it is, it is
one of the known sources of long vowels.

4.2.4. THE ABLATIVE.

The typical Ablative Case form for the Central dialects is *-pita*. That of the other areas is *-manta*. The principle of Generality seen in Chapter Three might lead us to conclude that the latter is more conservative, but we cannot be completely certain, since both forms (or their ancestors) may have existed in the proto-language. Parker considered the proto-form to have been *-pita, which he saw as a combination of the Locative *-pi with the Accusative *-ta (actually *-kta) He deemed *-manta* to be an innovative form in which the Directional *-man* had been substituted for the Locative. This is highly speculative to say the least, but he considered this putative change to one of the defining innovations of his Quechua A.

Besides the form *-pita* a number of other forms occur in various Central dialects, such as *-pīta*, *-pī*, or *pi?ta*, *-pi?* (in Huanca dialects), *-piq* (in Southern Ancash and Pacaraos), and *-paq* (in Southern Yauyos). All of these can readily be accounted for by reconstructing a form *-piq(ta) for Proto-Central. In Huanca it would undergo the typical changes of that group, *q > ? > : (the latter stage in only some of the dialects and only syllable-finally). In Southern Yauyos a change *i > a in suffixes, which is otherwise attested, would give the proper form.

As we noted previously, the forms *-pik(ta)* and *-pik* have more recently come to light in Santa Cruz de Andamarca (Huaral, LIMA) and in Corongo (Ancash), respectively. These forms allow us to reconstruct

*-pik(ta) for Proto-Central. The only additional change necessary is one of uvularization,

*k > q /i_ syllable-finally.

Such a change is seen in Southern Bolivian and Cajamarca as well as idiosyncratically in the speech of some individuals in Ayacucho and Ancash changing the inclusive person marker *-nčik* to *-nčiq*. The change would have to be irregularly specific to this morpheme, however, since most of the dialects that have *-piq(ta)* leave *-nčik* unchanged. For ample documentation of such suffix-specific changes in Quechua see Cerrón-Palomino (1977).

4.2.5. THE LOCATIVE.

The typical Central form of the Locative is *-čaw* or derivatives. This is just a grammaticalization of a Pre-Proto-Quechua root **xaw meaning 'middle, center.' It is found in virtually all dialect areas in forms derived from *xawpi. This is just the root in question with the Locative suffix *-pi.* It also occurs in the form *punxaw 'day' in a number of areas. The form *pun* meaning 'day' is independently attested in Huanca. The original meaning of *punxaw was probably 'midday' and later came to mean simply 'daytime'.

Given this clear etymology and the fact that derivatives of *xaw-pi occur in all the Central dialects where *-pi* is no longer the Locative, it is easy to see that *-pi was the original Locative and that the Central dialects have innovated by replacing it with *čaw*.

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4.2.6. VERBAL PLURALIZATION.

Each of the four major dialect areas has a different strategy for pluralization in the verb. Only those of the Southern and Northern dialects are clearly related. The Central dialects use one or another of several Modals for this purpose, while the North Peruvian dialects employ reflexes of *£apa or *zapa to this end. The Southern and Northern dialects add the suffixes -čik and -kuna or their derivatives, though in the case of the latter group, the possibilities are greatly reduced. Since all dialects have -kuna as a Pluralizer, it can be reconstructed for Proto-Quechua. The same is true for -nčik as the 1st person plural inclusive. This would lead us to conclude that the Southern (and Northern) system involving -čik and -kuna are the oldest, and that the Central and North Peruvian systems are innovations.

Several investigators, such as Parker (1969d: 154) have claimed that -nčik was the original form meaning '1st Pl. Inclusive' and that the Southern dialects innovated by extending its use to 2nd person forms "by analogy." To suggest that the whole complicated paradigm typical of all the Southern dialects, which we saw in Chapter One, could simply arise by some sort of analogy seems to be an intolerable stretch of the imagination. To the contrary, the very complexity of the Southern system argues for its antiquity, since the more natural changes are those of simplification.

4.2.7. THE FIRST PERSON OBJECT MARKER

The Central dialects have as one of their typical features the form -*mā* for the 1st person object marker (1OB), while dialects of other areas (except for Lambayeque) have a form -*wa.* Besides their different phonological shape the forms -*mā* and -*wa* differ in the morphophonemic and morphotactic properties as well. The facts are:

1. -*mā* triggers Vowel Lowering, -*wa* does not.

2. -*mā* cannot be preceded by -*mu* (DIR), -*wa* can.

-*mu* (Directional) is a Modal which with motion verbs indicates motion toward the speaker. With other verbs it means 'to go elsewhere' in order to perform the action of the verb. It is one of the Modals which trigger Vowel Lowering.

If one considers -*mā* to be a reduction of the sequence *-mu-wa, not only is its phonological shape accounted for but its strange behavior in points (1) and (2) above is automatically explained as well.

In spite of the obvious advantages of this analysis, Parker rejected it and chose *-ma as the proto-form. He hoped by doing so to be able to relate it to the Directional -*mu* by the rule of Vowel Lowering. The problem with this, beside the fact that an elegant solution is forfeited, is that the meanings of the two are so different that it is hard to imagine them as being allomorphs. It also is no simple task to explain how *-ma could change into -*wa* in all but the Central

dialects. Nevertheless, this putative change was one of the three innovations on which Parker based his Quechua A branch.

4.2.8. THE FIRST PERSON SUBJECT AND POSSESSIVE MARKERS

No topic in the evolution of Quechua dialects has attracted as much interest as that of the 1st person markers. So far virtually all investigators who have dealt with the internal classification of Quechua have considered the earliest division to be based on this differentiator. Something about the stark contrast between the two systems and the difficulty involved in trying to reconstruct the proto-forms makes it seem like a very archaic distinction, perhaps the earliest in the breakup of Proto-Quechua. There have been a number of attempts to reconstruct the original 1st person markers, and more articles have been written on this topic than any other in Quechua historical linguistics. So far the results have been largely unconvincing, due to the speculative nature of the proposals made and the lengths to which the various authors have been forced to go to support their theories. In Landerman (1978) I observed that all attempts up to that time involved either positing (virtually *ex nihilo*) proto-forms and/or intermediate forms quite dissimilar to anything actually attested anywhere, or invoking changes which are without parallel among any of those known to have taken place in the various dialects.

Torero (1964) posited proto-forms, *-: for both 1POS and 1SU, like those of Central Quechua (his Q.I) and proposed a change,

*-: > -y.[6]

to account for the possessive form (1POS) of other areas (his Q.II)

He argues that though this change is not natural nor otherwise attested, one in the opposite direction would have affected the Imperative and the Infinitive, which also have the form *-y. The stress which accompanies these morphemes word-finally in most Central dialects he considers to be an automatic consequence of the vowel length.

Parker (1969) proposes *-́, i.e., simply stress on the final vowel, which he admits is "somewhat arbitrary." This would not explain why this stressed vowel becomes long when, due to the addition of a following morpheme, it is no longer final. Both Parker and Torero claim that the subject form (1SU) -ni of all but the Central dialects is the result of NI Insertion, exactly how, they do not specify.

Proulx (1969) suggests *-yya and *-nya, forms quite dissimilar to anything actually attested, from which he attempts to derive the observed forms by means of a series of equally novel changes.

Cerrón-Palomino (1979) posits putative forms *-ya for both 1SU and 1POS relying on a highly speculative internal etymology based on

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[6]I shall use "-:" to symbolize lengthening of the preceding vowel and "-́" to indicate stress of the preceding vowel if word-final. Adelaar (followed by Cerrón-Palomino) uses the symbolization "V:" and "-V́-" for these respectively. Thus, the form for 1SU for Pacaraos, namely "-y following a stressed vowel if word finally," he symbolizes "V́-y", while I use "-́y".

the Huanca 1st person pronoun *ya?a.*[7] The evolution proposed is even
more unprecedented and is later abandoned by the author in favor of
the proposal considered next.

Adelaar (1984) suggests that the proto-forms were similar to those
of Pacaraos, where he carried out important field work in 1979. Both
1SU and 1POS are *-y* in this dialect. The Central dialect forms,
according to him, are derived by a change,

$$*\acute{-}y > -:$$

The forms for the Southern, Northern and North Peruvian dialects,
(where the possessive form 1POS is *-y*, and the verbal form 1SU is *-ni*)
he proposes are the result of the following evolution.

For 1POS,

$$*\acute{-}y > -y \qquad \text{(stress retraction).}$$

For 1SU, the following series of changes,

1. $*\acute{-}y > -y$ (stress retraction).

2. *-y > -y-ni-y*   (reduplication, NI insertion).

3. *-y-ni-y > -ni*   ("simplification")

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[7]The source of the Huanca pronoun *ya?a,* found only in the two
southernmost of the three Huanca dialect groups, is totally obscure.
That it derives from a former *yaqa is not an unreasonable assumption.
There is, however, no evidence whatever that any such form existed in
Proto-Quechua or that this form (or for that matter the proto-1st person
pronoun *ñuqa) involves the Topic marker *-qa. Cerrón-Palomino's
claim that a speaker would respond using the Topic marker to a "normal
elicitation of the personal pronouns" is simply wrong. Doing so would
involve a violation of the discourse structure of the language and the
function of *-qa.

He admits that this evolution is "problematic" but argues that (2) is justified by the fact that (1) would produce homonymy with the Imperative and the Infinitive, which would need to be avoided. The most problematic change of all, namely (3), he advances without comment.

Cerrón-Palomino, as we mentioned, adopts this evolution (1987: 197-9) and attempts to expand somewhat on its justification. Taylor (1984) finds it "quite plausible."

The same inadequacies pointed out in Landerman (1978) may be seen to also characterize the subsequent proposals of Cerrón-Palomino (1979, 1987) and Adelaar (1984), at times with resort to dubious analogies and rhetoric when the evidential ice gets thinner.

In general these proposals may be characterized thus :

1. They are not reconstructions at all. In each case the proto-forms are proposed, not reconstructed by working backwards stage by stage following the accepted methodology of the Comparative Method and Internal Reconstruction.[8] The proposals are based on (a) one of the three actually-occurring forms, -:, -y, or -ni (Torero 1964, Parker 1969,

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[8]In the paper alluded to, I attempted to correct this by following the methods strictly, with interesting results, *-yni for 1POS and *-nni for 1SU. These forms were not proposed but deduced by strict application of the Comparative Method and Internal Reconstruction without positing unattested intermediate stages. Nevertheless, subsequent field work in 1988 and 1989 has shown that some of the data cited, while phonetically accurate, may be subject to other semantic interpretations. While the conclusions reached in 1978 are not invalidated, some of them are not as secure as they seemed at the time.

Adelaar 1984), (b) highly speculative internal etymology (Cerrón-Palomino 1979, 1987), or (c) pure conjecture (Proulx 1969).

2. All propose intermediate forms quite dissimilar to anything actually attested.

3. All resort to totally *ad hoc* changes and/or application of known changes, such as *Vya > ā or NI Insertion, in completely novel contexts. All agree that NI Insertion ultimately is the source of the *-ni* 1SU form of the Southern, Northern and North Peruvian groups.

4. All except Proulx assume that both 1st person markers, possessive and verbal (1POS and 1SU) had identical shape in the proto-language, as is true of the Central dialects and Pacaraos. Cerrón-Palomino refers to these identical shapes as being "isomorphic", so this situation may be called "isomorphism".

The problems involved with these proposals are both theoretical and practical. We will review only some of them here.

First of all, two methodological principles argue strongly against isomorphism in the proto-language on theoretical grounds.

The first is the maxim that merger is natural while split is not. The QII type system (to use Torero's terminology), involving as it does two different forms, is more likely to be like the original. This is just the basic principle of the Comparative Method, that a contrast in a daughter language must be reconstructed for the proto-language, if no convincing mechanism for a split can be formulated.

The second is just the comparative linguistic version of the *lectio difficilior* principle, namely that the form that is hardest to explain in terms of the others is the most likely candidate for being the original. The kind of changes those who propose *∸ or *-: are forced to posit in order to wind up with -*ni* are bizarre. Torero and Parker did not attempt to spell them out. Adelaar did, but with the results we saw.

Among the practical difficulties are the following:

Cerrón-Palomino claims that the QII form -*y* is found in a number of verbal as well as nominal contexts:

1. in the 1st person Potential in all dialects, -*y-man.*

2. with the switch-reference different-subject marker -*pti.*

3. in the 1-2 transition -*yki.*

4. in the 1st plural exclusive -*y-ku*, except in Ayacucho where it is -*nɨ-ku.*

5. with the preterite -*ra* and the perfect -*ša* in Lambayeque.

6. alternating with -*ni* with the past -*rqa* in Cajamarca.

7. in the Potential with the form -*yni* in Pastaza (-*yni-ma*).

8. in the "Annotaciones" of the *Doctrina Christiana* (1584) with the past in the "improper" form "-rca-y".

9. in the compound past in González Holguín (1607), "cascay canmi" 'I have been,' i.e., *-ka-sqa-y ka-n-mi*

Of these nine cases, five, namely 2, 5, 6, 8, and 9, are in fact <u>not</u> verbal (SU) suffixes at all. It is well-known that they are <u>nominal</u> suffixes (POS), as can easily be seen from the 2nd person suffix in each case, which is *-yki* (2POS) not *-nki* (2SU).

It is not correct that all dialects, even all non-Central dialects, have *-y* in the Potential as Cerrón-Palomino claims. Inga of Colombia (Levinsohn 1976a: 85) and certain lowland dialects of Ecuador have *-ni* as in,

ri   -ni   -ma   'I would have gone."
go   1SU   POT

More telling still is the fact that the dialects which are closest, geographically as well as genetically, to Pacaraos, namely those of Santa Cruz de Andamarca and Vichaycocha (Huaral, LIMA), also have *-ni* in the Potential, as Cerrón-Palomino admits (1987: 197).

Not even the most straightforward of the changes Adelaar proposes, namely the one producing the Central dialects (*-y > -:), has any solid precedent as a historical change. One possible case of it would be in the second stage of the evolution of the Privative, *-nnaq > *-ynaq > -:naq*. But here it is not certain that dialects such as Andamarca, which have the form *-:naq* for the Privative, did not derive it directly from *-nnaq without going through the stage. *-ynaq* (the

form documented for a large number of dialects in the center of the Central area).

The putative intermediate form *-y-ni-y, which Adelaar proposes for non-Central dialects, is at best conjectural, since there is no evidence for reduplication of verbal person markers (SU) in these dialects, nor of NI insertion.applying anywhere but in nominal contexts.

Even weaker is the case for the putative change of "simplification", *-y-ni-y > -ni, as Adelaar admits. Cerrón-Palomino, while recognizing that the changes involved are "idiosyncratic", claims that the loss of the final -y is "perfectly plausible" in dialects which lack long vowels. In fact such a change affecting the Imperative -y, the Infinitive -y, or even the 1POS -y, is unknown in any of the non-Central dialects, with the possible exception of certain Northern dialects where the Infinitive -y is no longer productive and the possessive person markers have been lost. The attempted explanation of the supposed loss of the first -y by comparison with morphophonemic Y Elision, as in,

    maki -yki =   /maki-ki/   'your hand'
    hand 2POS

is even less relevant, since this rule applies only to possessive suffixes (and even then never to the Exclusive Plural -y-ku), and only following the vowel /i/.

In all of this, the dialects of Vichaycocha and Andamarca (Huaral Prov., see Map 19, p. 258), which have 1POS as *-y* and 1SU as *-ni* in both the Indicative and the Potential, pose a special problem for any theory involving isomorphism in the proto-language, especially one giving any weight to their nearest neighbor and relative, Pacaraos. In order to maintain that the 1st person forms of this latter community are conservative and represent something like the Proto-Quechua situation, we would have to accept the following:

1. Something like the proposed changes involved in the admittedly "problematic" evolution of the non-Central dialects examined above did in fact take place.

2. All of these changes took place in the Northern, North Peruvian, and Southern areas but not in the Central dialects.

3. All of them took place in Vichaycocha (right in the very district of Pacaraos) and in Santa Cruz de Andamarca (its neighboring district), and here they did so in an even more radical form, affecting the 1st Person Potential also.

4. They all took place in Vichaycocha and Andamarca despite the fact that these two dialects are the only ones which clearly lack the presumed motivating circumstance, namely that prior Stress Retraction had made the 1st person subject marker 1SU "dangerously homonymous" with the Imperative and the Infinitive. These two dialects would never have had such homonymy, never having undergone Stress Retraction.

5. The most conservative of all Quechua dialects with regard to these putative changes, namely Pacaraos, is virtually surrounded by the most innovative dialects, yet these are, by all other indications, its closest genetic relatives.

All of this seems extremely implausible, to say the least.

Adelaar suggests that it is also possible that the reduplicated form *-y-ni-y existed already in the proto-language before Stress Retraction took place. This would really only make matters worse by removing any motivation there might have been for Reduplication. Furthermore it would not help to explain the existence of dialects like Vichaycocha and Andamarca and point (4) above. If Reduplication (and NI Insertion, of course) took place before Stress Retraction, the result would have been *-y-ní-y with stress on the final syllable. Then one would have to try to explain why Stress Retraction did occur in these two dialects but only affected the verbal form (1SU) and not the nominal (1POS). If one were to argue that this stress retraction is part of the change called "Simplification," then that putative change would become even more *ad hoc* than it already was.

One might attempt to handle point (2) above by ascribing the changes under consideration to a period prior to a migration of the Quechua II (i.e., Quechua A) dialects to the north and south. This would still leave one with the dilemma posed by (3), (4), and (5).

All of these difficulties can be avoided by simply ceasing the attempt to swim upstream against the methodological current and

yielding to what the Comparative Method and the *lectio difficilior*
principle dictate by recognizing the 1st person markers of the Southern,
Northern and North Peruvian dialect areas to be more archaic than those
of the Central dialects. If Pacaraos is innovative and Vichaycocha and
Andamarca are conservative, then all the problems listed above
disappear by recognizing a single, simple change in which the *n* is lost
from the 1SU *-ni*, and the *i* automatically loses its syllabicity by the
rules of Quechua syllabification.

$$*\text{-ni} > [\text{-i}] = \text{-}\acute{y} \qquad \text{(N Loss)}$$

Notice that the final stress is an automatic consequence of the
change and requires no extra explanation for the unusual stress pattern
as the previous theory did.

Just such a change has reduced the Locative *-pi to simply -$\acute{y}$
in the Bobonaza dialects of lowland Ecuador:

$$*\text{-pi} > [\text{-}ƀ\text{i}] > [\text{-i}] > \text{-}\acute{y}$$

A number of the seven criteria for isogloss interpretation given in
Chapter Three bear on the issue of which proposed evolution more
adequately accounts for the current situation of Quechua dialects with
regard to the 1st person markers.

Naturalness. The single change of N Loss is certainly more
natural than the changes proposed by the theory involving isomorphism.

Generality. The non-isomorphic 1st person markers are found in
the Southern, Northern, and North Peruvian groups of dialects, while
the isomorphic ones are found only in the Central group. This argues
that the isomorphic dialects are the innovative ones.

Continuity. The isomorphic dialects form a continuous area; the
non-isomorphic ones are scattered over non-contiguous areas. This
indicates that the former are innovative.

Antiquity. The greatest diversity of dialects is found in the
Central area. This indicates that it is the area of longest occupation
and therefore tends to be the most innovative.

Centrality. The Central dialects, being geographically central, will
tend to be innovative; while other groups, being geographically
peripheral can be expected to be conservative.

Isolation. The non-isomorphic dialects of Andamarca and
Vichaycocha, being geographically and linguistically isolated from other
non-isomorphic dialects can be expected to be relic areas rather than
the sites of innovation.

In spite of the host of problems that N Loss solves with a single
change, Adelaar considers such an innovation and rejects it on the basis
that,

>"Neither the loss of a nasal or of a syllable containing a nasal is
>
>a change which has any parallels in any of the known Quechua
>
>dialects." (p. 41)

Even if this were true, the great explanatory power of N Loss would tend to make it the overwhelming favorite, in view of all that we have just seen. Since the alleged restriction against nasal loss is not based on any universal consideration and is claimed to be only particular to Quechua, it would hardly be given precedence over all the evidence arguing for N Loss, especially in Pacaraos.

The fact is, however, that Quechua nasals do not seem to be particularly resistant to change. Take, for example, the loss of *m* from the modal *-mu which occurs in the Huanca dialect of Sicaya (Huancayo, JUNIN) documented in Chacón (1973),

*-mu > *[u] = -w /_-CV.

This change is exactly analogous to N Loss, with the *u* automatically becoming *w*. The main difference is that *-mu can occur in a closed syllable, in which case the change does not apply. None of the suffixes which can follow *-ni 1SU can close the syllable containing it, so the change would apply everywhere leaving no unmodified alternant.

Pacaraos is not the only place a change like N Loss appears to have applied, however. There are precisely three instances in the Southern dialects where one finds a *-y* in 1st person verbal forms where a *-ni* would be expected. These are just the three cases remaining (1, 3, and 4) of the nine Cerrón-Palomino claimed. I dealt with these in Landerman (1978) and (1981) but will summarize here.

All three cases of -*y* occur in precisely the same phonological environment, namely in the penultimate syllable. This in and of itself might make one suspect that they are all due to the same cause, perhaps some sort of phonological change. If the 1SU marker was *-ni in these cases as well,[9] the change would be something like the reduction of *-ni to -*y* when it is the penultimate syllable. The problem is that Quechua stress is ordinarily penultimate, so one would have to explain why the stressed syllable got reduced, a change which is not very natural. One would also have to account for all the cases of penultimate *-ni which are not reduced.

The suffixes -*man* of the Potential and the verbal pluralizer -*ku* both are derived from what were historically separate words, *man*, and *kuna*, respectively. This can be seen from the fact that they were each written with their own accent in Santo Tomás (1560a, b), "mán" and "cória". In their evolution to becoming suffixes they would have passed through a stage in which they were enclitics (in the classical sense), being pronounced together with the preceding word but not having any affect on its accent. Later a change of Stress Regularization would cause them to be taken into account by the penultimate stress rule, and they would behave like other suffixes. If we assume that the verb paradigm was originally regular and that *-ni occurred before these

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[9]In fact it is in some dialects. In Ayacucho the verbal 1st person exclusive plural is -*ni̱-ku*, as we have seen. As was also noted, the form -*ni̱-ma* is found in Colombian Inga and in some areas of eastern Ecuador, as well as in Vichaycocha and Andamarca.

morphemes, during their clitic period, they would produce words that could be perceived as exceptions to the penultimate stress rule, such as,

*rí   -ni   =man   'I would go.'

    go   1SU   POT

*rí   -ni   =kuna[10]   'We (excl.) go.'

go   1SU   PL

These would be the perfect conditions for a change to apply and regularize the stress, namely one reducing the syllable *ni* to *y*. This would just be a type of syncope. It would have occurred before Stress Regularization could shift the stress over onto the syllable containing -*ni*. Thus the clitic nature of these two morphemes would explain why the change appears to occur in the penultimate syllable but only before these morphemes. The dialects where the *ni* remains unreduced would just be cases where Stress Regularization occurred before the syncope had had a chance to.

In Landerman (1978) I argued that the *ki* of the 1-2 transition -*yki* was at one time a clitic pronoun. Further dialect evidence has subsequently turned up to support this view, but the arguments are too long to be included here. In any event it should be clear that this clitic =ki would have effects analogous to those of =man and =ku above,

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[10]When the final syllable *na* was lost in Cuzco and Ayacucho is not clear. It is still found in Santo Tomás (1560a, b) but is already absent in the dialect described by González Holguín (1607). It remains to this day in the Northern dialects and in the past tense in Santiago del Estero.

so it is no surprise to find it preceded by -y rather than -ni. Presumably this is also a result of N Loss. Thus these three cases do not argue for isomorphism in the proto-language as Cerrón-Palomino claimed; rather quite the contrary.

To summarize, then, we have shown that there are strong reasons to believe that the isomorphism of Pacaraos, far from being a unique witness to the Proto-Quechua situation, is the result of a simple innovation, N Loss, which could even have occurred fairly recently. We have also shown that the isomorphism of the Central dialects is in all likelihood innovative rather than conservative. Whether it is related at all to the isomorphism of Pacaraos remains an open question. Off hand there seems to be no compelling reason to assume that it is. But what all of this does is to seriously call into question the virtually universally held position that the 1st person markers constitute the basis for the earliest division of Quechua dialects.

If the Central forms are considered to be innovative, the whole geographic distribution of Quechua dialects would make sense with Central dialects forming a single patch in the middle, surrounded by conservative areas to the north and south, and even to the west (Huaral and southwest Yauyos). In terms of the geographic "norms" we saw earlier, this is much more reasonable than positing a whole series of strange changes that occurred in different areas all over the map. This latter view could be serious maintained only if one were to contend that the changes took place in a single area (the "homeland" of QII dialects) at a time before they began to expand to their current distribution.

4.3. GENETIC SUBGROUPING

We will now return to the specific problems of Quechua classification. Some of the questions which require answers are:

1. Does the Northern group constitute a single genetic group? If so then how does Pastaza fit in, which, in contrast with the others, preserves the possessive person markers?

2. Do the Northern dialects share some special relationship with those of the Southern area?

3. Do the North Peruvian groups constitute a subfamily? Parker very tentatively suggested they do. Taylor at first agreed but ended up considering them "mixed" dialects. Torero continues to deny them subfamily status, assigning them to groups of other geographic areas.

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4. How are the Central dialects to be defined as a whole, and do they form a single genetic group? Can one separate the "Siamese twin" dialects of the Yauyos and Huaral areas (Lima Dept.)? If so, on what basis?

5. Once separated, can the Central dialects be opposed to a single genetic grouping made up of all other dialects? To what extent do the 1st person markers play a role in all this?

In the remainder of this chapter I will take up these topics in turn.

4.3.1. THE NORTHERN GROUP

There seems to be ample evidence that this group is genetically a single branch. The following traits, which are undoubtedly innovations, are characteristic of all Northern dialects and unique to them.

1. the Reflexive is -*ri* (rather than the -ku of other areas), presumably derived from the Inceptive Modal *-ri.

2. The Durative is -*ku*, derived from the Proto-Reflexive *-kU.

3. The verbal Infinitive is -*na*, from the Nominalizer *-na of other areas. The proto-infinitive *-y is no longer productive and is used to form certain derived nouns.

4. The distinction between Inclusive and Exclusive 1st person plural is lost, *-nčik, the original Inclusive, being the form that survives.

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5. -*šu* in 2nd person object forms is lost.

In addition the following are true of most of the dialects of this group:

6. The Possessive person markers are lost in all of the dialects except the one found on the Pastaza river in Peru.

7. In many dialects (including Pastaza) there is a verbal pluralizer -*naku*, in all likelihood derived from the Proto-Reciprocal *-nakU.

Several other innovations which characterize all Northern dialects are not totally exclusive to this area:

9. The merger of *k and *q to /k/ (also in San Martín and Amazonas).

10. The merger of *c and *x to /č/ (also in San Martín and the Southern dialects).

11. The voicing of stops after nasals. This change is far from complete in most areas; and as a result, along with the introduction of Spanish loans and a series of roots probably of substratal origin, the voiced stops have become contrastive. (This change is present to some degree in all the North Peruvian dialects as well).

The Northern group is different enough from the other three, especially in its morphology, that, were we to possess no ethnohistorical

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[11]This, of course, is not *per se* an innovation common to these dialects but rather a typological feature.

information, we would be tempted to consider it a fairly early split off from Proto-Quechua, perhaps the earliest. Our discussion up to this point should lead us to greater caution however. After a careful consideration of all the various sources, Hartmann (1979) concludes that there is no reliable historical evidence for Quechua being spoken in the Ecuadorian highlands prior to the Inca invasion. And this was one of the last areas conquered by them, just two or three generations before the arrival of Pizarro. On the other hand, there are various reports that other, non-Quechua languages were still spoken in many areas at the time of the Spanish conquest, and that these persisted perhaps into the XVIIth century. Place names throughout the highlands also attest to a basically non-Quechua substratum.

We do not find in this area the sort of internal fragmentation and preservation of archaic forms on the fringes that is typical of the dialects of the Central area. The bizarre shift in meaning and function of the Reflexive, the Reciprocal, and the Inceptive (if indeed that is what happened) is difficult to explain in terms of natural evolution. The loss of the person possessive markers requires rather severe readjustment in the syntax (see Muysken 1977). Even the one dialect which has not undergone this loss, that of the Pastaza River in Peru, has participated in the rest of the characteristic changes of this group; so it still clearly belongs to this subfamily rather than, for example, in a group with San Martín.

Perhaps this is one area where we are justified in thinking about serious substratal influence, though obviously this can be no more than

speculation when the linguistic characteristics of the substratal languages are not known.

4.3.2. NORTHERN AND SOUTHERN

Parker stated that the Northern dialects were "Obviously derived from the Cuzco dialect." (1963: 246) We have already seen that the Northern dialects share a significant number of unique features, which easily allowed us to conclude that they constitute a genetic family. If they evolved from Cuzco Quechua, they must have undergone a whole series of profound changes in the interim. The crucial question then is whether the Northern dialects had a separate origin or are genetic descendents of Cuzco. The occurrence in the Northern group of any demonstrably archaic feature which had been lost in Cuzco by the time of the conquest would be important counterevidence to the theory of Cuzco origin.

Orr and Longacre (1968) held that the phoneme /¢/ of these dialects is a unique witness for a phoneme of Proto-Quechua, which, if true would strongly argue for the independence of the Northern group. However, Torero has shown that a significant proportion of the occurrences of Northern /¢/ correspond to Cuzco /č?/, where cognates can be found (1964: 465, 6).[12] Torero also considers roots beginning in "zh" (presumably [ǰ] or [ž]) in Cordero's Dictionary (1955). He finds

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[12]It is interesting that Orr and Longacre did not comment on Torero's claims, since his article appears among the references cited in their work.

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four of these that have Cuzco cognates, and the latter all have /cʰ/. Parker reviews this evidence and considers it persuasive (1969d: 155-60). Torero only claimed that this was evidence of these forms having been borrowed from Cuzco, not that the Northern dialects in general are derivative.

Another apparent case of preservation of a Proto-Quechua feature is the /tʸ/ phoneme of Pulucate (Chimborazo) described by Beukema (1975). He records a small number of roots containing /tʸ/, four of which are of Quechua origin, the rest are not. The /tʸ/ found here corresponds to /č/ in other Ecuadorian dialects. The forms in question are:

Pulucate	Other Ec.	Proto-Q	
kantʸis	kančis	*qanxis	'seven"
tʸaski-	časki-	*xaski-	'receive"
tʸusku	čusku	*xusku	'four'
tʸuspi	čuspi	*Cuspi[13]	'fly'

Three of the /tʸ/'s clearly are reflexes of *x, so at first glance this would appear to be a survival of *x (which has merged with *c everywhere else in the Northern group). Other instances of *x appear as the expected /č/ in Pulucate. Notice however that in all four cases the /tʸ/ begins a syllable closed by /s/ (N.B., not /š/). Therefore

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[13]The evidence is ambiguous as to which proto-affricate was present in this root.

rather than being an archaic feature preserved in this one community, these appear to be the result of a unique innovation:

č > tʸ /_s$

The only exception to this change in Beukema's work is a form *časpi-* 'to shake.' The best attested proto-forms for this root, however, are *tapsi- and *xapsiʔ-, so perhaps this has something to do with its exceptional behavior.

One Northern feature which appears to be fairly old is the use of the pluralizer *-kuna* in the verb system. The dialect described by González Holguín (1607) had reduced it to *-ku*, but it retained its full form in the dialect described by Santo Tomás (1560a, b). The unreduced form is still found today in the past tense in the dialect of Santiago del Estero. This distribution argues that the reduction may have taken place around the time of the Spanish Conquest and not much earlier. If so, this feature would not be evidence of a Pre-Inca or non-Cuzco origin of the Northern dialects.

Approaching the question of the origin of the Northern dialects from the other perspective, there are certain other roots in this group that seem to point toward a Cuzco origin. Among these are:

Northern	Cuzco	Ayacucho	Proto
hayka	*haykʔa*	*hayka*	'when'
hambatu	*hampʔatu*	*ampatu*	'toad'
haku	*hakʔu*	*aku*	'flour'

huku	*huqʔu*	*uqu*	'wet'
hutku	*hutkʔu*	*učku*	'hole'

The Southern dialects which have glottalized stops usually add an /h/ to the beginning of words containing them that would otherwise begin in a vowel. This is undoubtedly the source of the initial /h/ in these Cuzco forms. Dialects from other areas have no /h/ in these forms; for example, the root for 'when' is ayka in the Central dialects. Ayacucho is not always consistent in omitting the /h/, as we see in this form, but in the other four cases it illustrates the point well. The Northern dialects follow Cuzco in adding /h/ but only in those roots where Cuzco has a glottalized stop. This can hardly be coincidental and points to a Cuzco origin for at least these items. The last form is also interesting along these lines, since only Cuzco (and perhaps Bolivian) have /t/ (which in many areas has changed to /s/) in this root. Other dialects have a form derived from *uxku. The "Third Area" has *hučkʔu.*

All of this does not prove Parker's thesis that the Northern dialects have their origins in Cuzco. As a matter of fact, Torero considered the forms he studied only to be an "adstratum" or "superstratum", i.e., Cuzco loans. What we have found is evidence for a special relationship between the Northern dialects and Cuzco. No other dialect area has the number of roots of obvious Cuzco origin. Whether this is due to borrowing or a shared common origin we cannot say.

We have searched for evidence of an independent, pre-Cuzco ancestor, which the radicality of the changes the Northern dialects have undergone would lead us to suspect; and we have found none. Perhaps some substratum is to blame, but as long as it remains unknown, the question of the genetic origin of these dialects and their quite unique features will have to remain completely open.

4.3.3. THE NORTH PERUVIAN GROUP

As we have noted, there seems to be a consensus among the various investigators that Lambayeque and Cajamarca belong together in a subgroup more closely related to each other than to anything else. This is in spite of the apparently Central-type features that Torero points out for Lambayeque. Likewise all agree that Amazonas and San Martín (along with its "Ucayali" variants) form a subgroup, despite the radical surface differences brought about by the phonological changes of the former, which give it a totally non-Quechua sound.

There is, however, no agreement as to whether to unite these two subgroups, Eastern North Peruvian (Lambayeque and Cajamarca) and Western North Peruvian (Amazonas and San Martín), into a single North Peruvian branch, as Parker and Taylor (originally) did. In the remainder of this discussion I shall refer to these two subgroups as "E" and "W", respectively.

The problem is that most of what may be cited as typical of the whole North Peruvian group are retentions of Proto-Quechua features
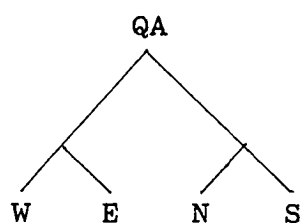
rather than innovations. Parker, in 1973 (personal communication) had real misgivings on this point. The criteria he cited for joining them (1969d), without much conviction and admittedly with very little data, were:

1. loss of initial /h/.

2. delateralization of /lʸ/ to [ž].
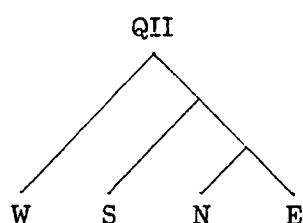
3. voicing of stops after nasals.

Torero, on the other hand, has separated E and W as far apart as possible. From 1964 on he considered San Martín and Ecuadorian to be closely related. Amazonas he at first included with Cajamarca and Lambayeque in his IIA subgroup, perhaps on the basis of the retention of /č/ and /ĉ/ in all three. As we saw, he later (1970) reassigned Amazonas to the same subgroup of his "Chínchay" along with San Martín, still including "Pichincha", i.e., Ecuadorian (what we have called the Northern group).

Both authors affirmed a special relationship between the Northern and Southern groups (I shall here symbolize them as "N" and "S", respectively), but Torero subordinated this to what we might call his "Northern-Eastern connection" (Amazonas-San Martín with the Northern group). These two views of the relations of the non-Central dialects (Parker's Quechua A and Torero's QII) can be displayed in the following trees:

Parker:	Torero:

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        QA                           QII
       /\                           /\
      /  \                         /  \
     /\   /\                      /  /\  /\
    /  \ /  \                    /  /  \/  \
   W    E  N  S                 W   S   N   E
```

This long-standing assignment of San Martín on the part of Torero to the Northern group (to form his QIIB, Chinchay) seems questionable. Of the characteristic innovations of this group, which were outlined above, it shares only (9) (*q > k), (10) (*x > č), and (11) (voicing after nasals). When Amazonas is included, innovation (10) is also eliminated, making the assignment even more suspect.

The effort by Torero to establish a special relation between Cajamarca and Lambayeque and certain dialects of Lima Dept., even attempting to ascertain the points of origin of the former two in the south (thereby assuming a migration), must be counted as a failure. In his 1968 article he attempts to establish a few lexical similarities, but even these are unconvincing; so he ends up not citing a single shared feature which is not a retention. Thus there is no real evidence for his QIIA Yúngay subgroup, even if it is subdivided into northern and southern subbranches, as Cerrón-Palomino does.

4.3.3.1. Initial *h Loss.

So what kind of a case can be made for a North Peruvian subfamily? The loss of initial *h as a shared innovation does not

constitute much of an argument, since this same change has occurred in Pastaza, parts of the Ecuador, both highland and jungle, northern Ancash, southern Ayacucho, Santiago del Estero, etc.

4.3.3.2. Voicing.

The voicing of stops after nasals occurs in the Northern dialects as well, and is far from uniform. In San Martín it is nowhere complete, though it is more so in some communities than others. In Cajamarca it is more regular and affects the affricates as well, but it occurs only after /n/ not after /m/. In Lambayeque voicing occurs after /y/ and /w/ as well, but there is a great deal of variation in this from place to place and person to person, as well as to which lexemes are affected. In short, though each area is affected to one degree or another, the phenomenon gives the appearance of being a change currently in progress rather than something that antedates the break-up of a presumed single ancestor. That is to say, it could very well be parallel innovation or "drift" rather than shared innovation.

4.3.3.3. Delateralization.

The Delateralization of *ł [lʸ] also is not uniform. In Cajamarca the results are [dʸ] in Chetilla and [ž] in Porcón. In the latter case relic forms such as [čunǰa] (< *cunła) 'silence' argue that [ǰ] was an intermediate stage in the evolution of [ž], which undoubtedly was,

lʸ > dʸ > ǰ > ž.

In Chetilla, where only the second stage was reached, 'silence' is

[čundʸa]. Quesada reports that the nearly-extinct dialect of Llaucán

has [lʸ] as the reflex of *ʎ (1976a: 40). Since we do not know the local

form of items like *cunʎa 'silence', we cannot tell if this is a result of

Relateralization (perhaps under the influence of local Spanish) or if this

dialect remains unaffected by Delateralization.

In Lambayeque both [ž] and [ǰ] are found, depending on the

community; but [ž] predominates. Though to date [dʸ] has not been

reported in this area, the evolution was in all likelihood the same as

that of Cajamarca; areas showing [ž] have [čunǰa] for 'silence'.

One thing that both areas have in common is that the change goes

against the trend of the local Spanish, where orthographic "ll" is

pronounced [lʸ]. Nevertheless, in both areas the change appears to be

presently in progress rather than something dating back to a presumed

period of linguistic unity. So it would appear that here again we have

a case of parallel development.

In San Martín the reflex of *ʎ is uniformly [ǰ].[14] The same is

true in most areas of Amazonas, but the dialects of the Imaza

headwaters, Quinjalca, Granada, Olleros, and Goncha, which are the most

monolingual and isolated, are unaffected by Delateralization, having [lʸ]

as the reflex of *ʎ. The dialects that delateralize in San Martín and

Amazonas are going with rather than against the current of local

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[14]In numerous interviews of people from Lamas I have never found the
[ž] allophone reported in Escobar (1970) and Coombs et al. (1976: 35).

Spanish, for in these two departments, as well as in most of the eastern jungle area of Peru, orthographic "ll" is pronounced [ǰ].

In summary, Depalatalization does not seem to be a good basis on which to assign the E and W dialects to single genetic subfamily. The changes appear to be independent and on-going in each area; and the W dialects are changing despite the local Spanish norms, while the E dialects appear to be conforming to them.

4.3.3.4. Pluralization.

The main feature which is undoubtedly an innovation and which unites all four Northern Peruvian zones, as well as being unique to them, is the system of verbal pluralization with -sapa or -ɬapa. This fact is not mentioned by either Parker or Torero. However, even though the resulting systems are very similar in all four, there is not perfect agreement. Lambayeque-Cajamarca uses -ɬapa, while Amazonas-San Martín uses -sapa; and these come from different proto-roots, *ɬapa and *zapa, respectively. And there is a further difference. We have already seen how -kuna is used to pluralize either the possessed or the possessor in San Martín (p. 59). In the E dialects -ɬapa is used to pluralize the possessor, thus eliminating the San Martín-type ambiguity:

wasi -y   -kuna   'my houses' [Cajamarca]
house 1POS PL

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wasi -y   -£apa   'our (excl.) house'

wasi -y   -kuna-£apa   'our (excl.) houses'

So once again we cannot be sure we are dealing with a single
shared innovation in all four areas. Therefore we are forced to leave
the hypothesis of a genetic North Peruvian subfamily as plausible but
unproven.

4.3.4. THE CENTRAL-SOUTHERN SPLIT

All observers have been impressed with the stark contrast
between the Southern dialects and those of the Central area even
though they are geographically contiguous. Huerta (1616) alludes to
this boundary, and Hengvart (1907) emphasizes it. This distinction was
one of the main points of Parker's initial article (1963). At first glance
it would seem simple to gather an impressive list of differences between
these two areas. The problem is that, as more dialect information has
become available, dialects having properties typical of both groups have
turned up, and the list of exclusively distinctive traits of the two
groups has dwindled away. Torero recognized already in 1968 that the
1st person markers, subject and possessive (1SU and 1POS), were his
only remaining criteria for separating the two groups. Taylor, as we
have seen, opts for considering the problem dialects "mixed," as far as
their classification is concerned. In the real world "mixing" can take
place, of course, but this type of reasoning quickly becomes circular if
it is invoked as an explanation when we have no independent evidence
of contact or population movements. Taking the 1st person markers as

the sole criterion for the separation of these two groups reduces the "bundle" to a single isogloss, a move that is difficult to defend against charges of arbitrariness.

The main geographic border separating the Central and Southern dialects in the Continuous Zone is the political one between the Departments of Junín and Huancavelica. Looking at simple isoglosses for a moment, without regard to whether they are innovations or not, we find a whole series of differentiators which separate the dialects northwest and southeast of this line, namely those labeled QI and QII in the following Differentiator Matrix,

	QI	Cacra	Huangáscr	Chocos	Lincha	Víñac	QII
1ps	-:	-:	-:	-:	-y/-ni	-y/-ni	-y/-ni
1OB	-mā	-mā	-mā	-mā	-wā	-wā	-wa
LOC	-ĉaw	-pi	-pa	-pa	-pi	-pa	-pi
ABL	-pita	-paq	-paq	-paq	-paq	-p̃aq	-manta
DUR	-y(k)ā	-ya	-ya	-ya	-ya	-ya	-čka
Vpl	-pāku	-pāku	-pāku	-pāku	-pāku	-pāku	-čik/-ku
*x	ĉ	ĉ	ĉ	ĉ	ĉ	ĉ	č
V:	+	+	+	+	+	+	-

However, as one moves to the border of Lima and Ica Departments, one encounters other dialects, located in Southern Yauyos, whose features do not coincide cleanly with either group. These are also displayed on the chart.

Before taking up the question of whether the Central dialects can be considered a genetic family, let us see first how they can be characterized in Categorial terms. Since our goal for the moment is not one of genetic classification, but rather to define the difference between the Central and Southern dialects, we adopt the Isogloss Bundle method.

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Upon examining the above matrix it is clear that no other differentiator supports or "forms a bundle with" the 1st person markers.

But if one leaves these aside, it is possible to find agreement among the following differentiators: (the form northwest of the line is cited.).

1. Verbal pluralization by Modals such as -pāku.

2. The Ablative is -paq. (related to -pita, etc.

3. The Durative is -ya. (< -ykā)

4. Contrastive vowel length.

5. Retention of the contrasts *c ≠ *x, *z ≠ *s.   [15]

One problem for such an analysis is the dialect of Laraos, which has -manta for the Ablative, -čka for the Durative, and lacks long vowels. Torero cites several other towns which would be problematic for this division. He claims that Tantará (Castrovirreyna, Huancavelica Dept.) has long vowels, and Moya and Vilcas (Huancavelica) preserve *c ≠ *x and *z ≠ *s, though in other respects all three are like the Southern dialect of Ayacucho. I will tentatively ignore these three, since Torero cites no data for his claims.[16]
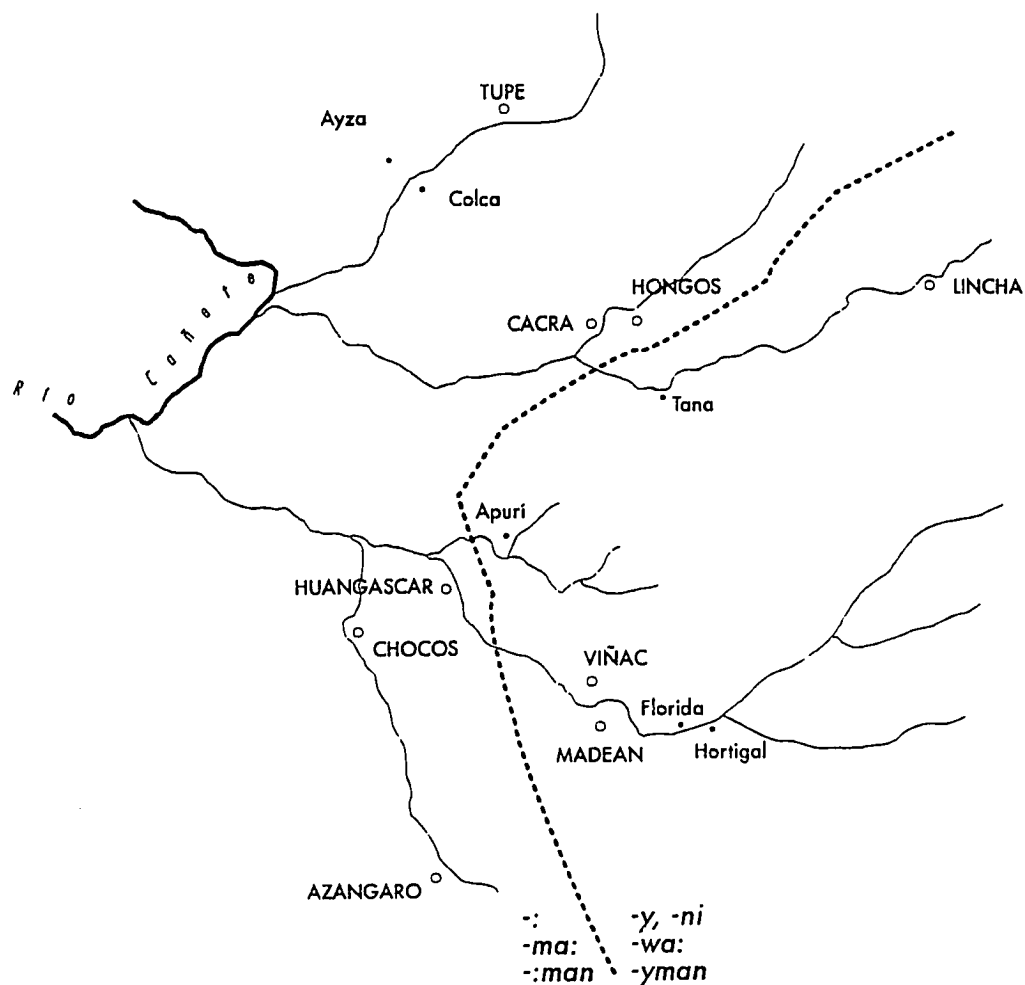
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[15]In reality the changes which merged these in the Southern dialects took place at quited different times, so we would be justified in splitting this differentiator into two separate ones.

[16]My own data from these towns are the fruit of a few short encounters which did not yield consistent results. None of it tends to confirm Torero's claims. My experience is that men from these areas, due to extensive traveling, tend to mix in, or speak entirely in Ayacucho Quechua. The women, on the other hand, preserve the local dialect much more consistently.

The result is that, except for Laraos, it is possible to come up with a Categorial Classification in which the Central dialects are separated from the Southern ones by at least five different isoglosses. One should note, however, that the 1st person markers are not among these.

4.3.5. SIAMESE-TWIN DIALECTS

Another problem for classification based on the 1st person markers is that in both Yauyos and Huaral Provinces of Lima Dept. there are pairs of dialects that are separated by their system of 1st person markers but otherwise are quite similar. In the Province of Yauyos (Lima) we have, for example, Huangáscar as opposed to Madeán and Víñac located in the same canyon. The former has 1st person markers typical of the Central dialects, while the latter two have forms like those found in the Southern area. See the following map.

TUPE
o
Ayza
•
Colca
•

Rio
Cañete

HONGOS •⋅
CACRA o/ o
o LINCHA

• Tana

Apuri
•

HUANGASCAR o
o
CHOCOS
•
VIÑAC
o
• Florida
o •
MADEAN   Hortigal

AZANGARO o

-:   -y, -ni
-ma: -wa:
-:man   -yman

SOUTHERN YAUYOS

Map 18

In the Province of Huaral (Lima) the town of Santa Cruz de
Andamarca has typical Southern 1st person markers, while those of
Pacaraos, a community across the canyon of the Chancay River, has
forms which are unique (both 1SU and 1POS are -y), as we have
seen. Forms like those of Andamarca are reported by Taylor (1979b) for
Vichaycocha, a community within the district of Pacaraos. In inquiries I

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made in Ravira in 1988, I was unable to find anyone who remembered someone ever having spoken Quechua in that community. The same was true of Chauco in the District of Andamarca. As yet there has been no opportunity to check the towns of Viscas, Baños, and Pirca. These communities are displayed on the following map.

Highland HUARAL Province
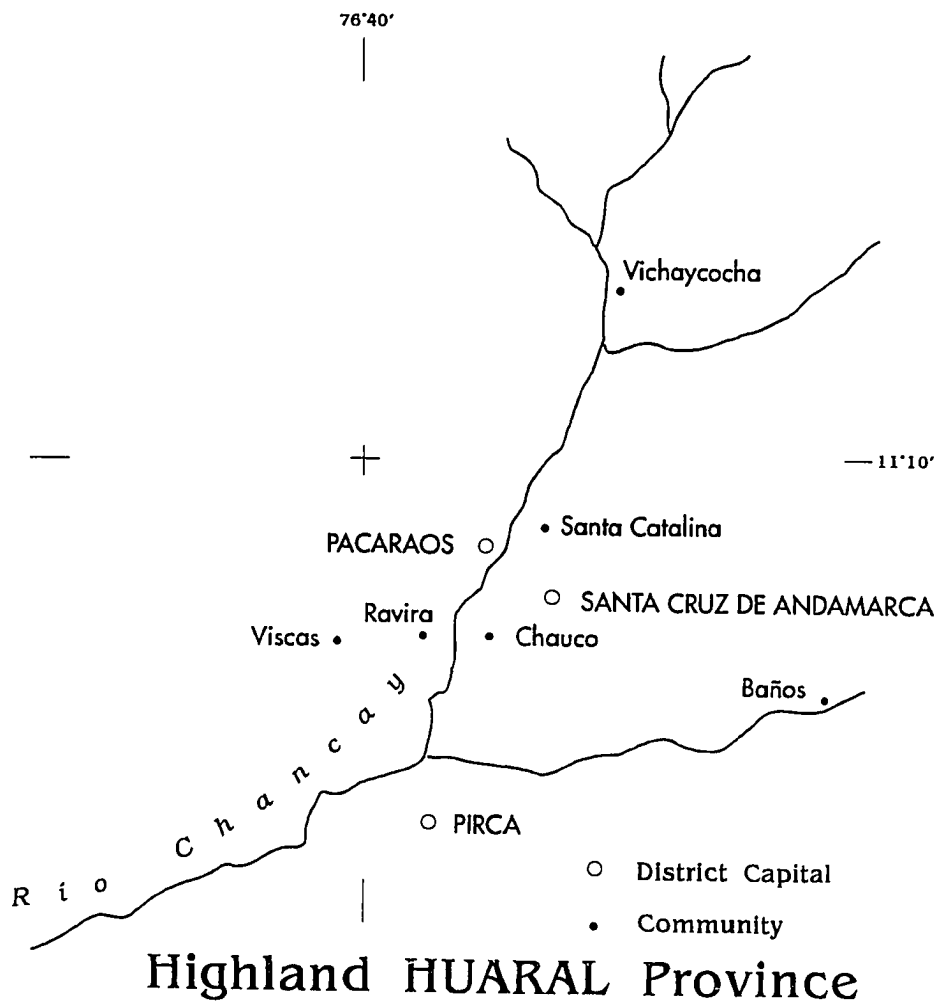
Map 19

If the Southern and Central dialects are separated on the basis of the 1st person markers, as virtually every one has suggested, the line between the two will have to take some rather bizarre twists. As we noted earlier, it might be feasible to join Madeán, Víñac, Lincha, Tana and Laraos with the Southern dialects in spite of their other features. To do this with Andamarca and Vichaycocha, however, would not appear, on the surface of it, to make sense geographically or linguistically, since the rest of their features are typically Central.

4.3.6. THE CENTRAL GROUP

We arrived at a Categorial Classification which provides and interesting characterization of the Central dialects in terms of a bundle of five isoglosses, but which required dropping the 1st person markers as a criterion. Can the dialects so delimited be shown to constitute a genetic subfamily? In other words, what shared innovations do they exhibit? At least one is required. If we return to the bundle of five isoglosses proposed as a definition of the Central dialects (p. 255), we see that (5) is a retention in these dialects, and that in the case of (2) the Ablative and (3) the Durative it is not clear which group (or perhaps both) innovated. In only two cases can we be fairly certain that the Central dialects are the innovators:

1. The existence of Long Vowels.

2. The use of Modals as Verbal Pluralizers.

These both have the appearance of being rather old changes, so they look like reasonably good support for the existence of a genetic subgroup along the lines of that defined by the isogloss bundle. Of course, accepting such a as a genetic subfamily would necessitate the abandonment of the 1st person markers as the earliest change which split off the Central dialects.

4.3.7. THE SOUTHERN DIALECTS

Can the Southern dialects, as defined by the same five isoglosses also be considered a genetic subfamily? The Southern dialects as we have characterized them have so many features in common that the answer would at first seem to be an obvious yes. Recall, however, that we have argued that the Locative, the system of Verbal Plurals and other typical Southern features are very likely retentions rather than innovations. However, there are at least three innovations (and there are probably others) that would argue for this group also being a genetic unit, namely,

1. The merger of *x and *c.

2. The merger of *s and *z.

3. The reduction of the clitic pluralizer *-kuna* to *-ku*.

The first change is not exclusive to this group. The second is, but took place only during the colonial period, as we have seen. It would not, therefore, have been what caused the split. The third

change had only taken place in the 1st person exclusive pronoun *ñuqayku* and the corresponding possessive *-yku* in the dialect described by Santo Tomás (1560a, b). With rare exceptions it has currently affected all instances in the verbal paradigm in the extant Southern dialects. The evidence of a genetic Southern subgroup seems to be there, if somewhat less solid.

4.3.8. THE CENTRAL VERSUS OTHER DIALECTS

To end this consideration of the classification of Quechua dialects, let us take up the topic which underlies much of the discussion of Quechua classification since Parker (1963), namely whether there is any basis for separating the dialects into two basic groups, as almost everyone has done. First some simplifying assumptions will be made to avoid undue complexity. We have seen that

1. It is not certain that the special relationship of the Northern and Southern dialects is one of common origin, though this is a distinct possibility.

2. It is not clear that the North Peruvian dialects can be united into a single family.

3. It is not certain how the Central dialects should be gathered into a single genetic group and which dialects should be excluded from it, but one proposal seems promising.

In spite of these uncertainties we will assume that each of these three points has been satisfactorily resolved and that we can speak of a North-South group, a North Peruvian group, and a Central group, each of which is a genetic unity. Can any two of these three groups be united so that they oppose the third, thereby giving rise to a binary division at the top of the tree?

Let us examine the following Differentiator Matrix in which a number of features of the four areas have been charted:

Some Major Dialect Differentiators:

		N	NP	C	S	Innovator:
1.	1SU	-ni	-ni	-:	-ni	C
2.	1POS	--	-y	-:	-y	C
3.	1OB	-wa	-wa	-mā	-wa	C
4.	DUR	-ku	-yka	-ykā	-čka	N,?
5.	ABL	-manta	-manta	-pik(ta)	-manta	?
6.	LOC	-pi	-pi	-ĉaw	-pi	C
7.	Vb PL (33)	-kuna	-sapa	Modal	-ku	NP, C
8.	SR=	-špa	-špa	-r	-spa	?
9.	SU /PST_	SU	POS	POS	SU	N, S
10.	REFL	-ri	-ka[17]	-ku	-ku	N, NP
11.	*x	č	ĉ	ĉ	č	N, S
12.	Vya	Vya	Vya	ā	Vya	C
13.	Long V?	-	-	+	-	C

We have already discussed all of these differentiators except for three, namely 4, 8, and 9. In the case of the Durative (4), we have already seen that the Northern form -ku is in all likelihood a reflex of the Reflexive -ku of the Central and Southern dialects. Central dialects of the Huanca area and Yauyos have both -ykā (or derivatives like -yā and -ya) and -čkā. In such cases the former has the normal Durative

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[17]San Martín has -naku. I have no data from Amazonas.

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meaning while the latter means 'to do meanwhile,' i.e., while some other action is taking place. This is the meaning of *-ski* in Lambayeque as well (but not of *-skI* in Ancash). In Ayacucho the form *-čka* has both meanings.

The most plausible explanation for all these facts would be that both forms existed in the proto-language as separate morphemes, and that *-čka* was generalized in the Southern dialects while it was lost or replaced by *-yka* in the rest of the Central dialects and those of the North Peruvian area. If this is correct, it would mean that several different innovations are involved in different areas, such as, "*-čka* loss" or "*-yka* generalization."

What is displayed for Differentiator (8) is oversimplified, as we have seen. In the North Peruvian group, Lambayeque has *-r*. In the Central group *-špa* is found along with *-r* in most of Ancash and Huánuco Departments but differing as to their morphological properties (see Weber 1989 for details). *-špa* alone is found in Southern Yauyos. As in the case of the Durative, this distribution points to the possibility that both forms existed in the proto-language, and that one or the other was eliminated in various dialects.

Differentiator (9) refers to the form of the person marker that occurs after the Past Tense (PST) marker, *-rqa. The dialects marked "POS" take possessive person markers rather than the normal verbal subject markers (SU) in this environment. Once again what is indicated in the chart is a simplification. In the North Peruvian group, San

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Martín has SU. Both SU and POS are found in Cajamarca. In the Central group the southern Huanca dialects and Southern Yauyos have SU.

This person marking in the POS dialects is unusual, since it is virtually the only case in which the POS person markers are used in main verbs. Therefore by the *lectio difficilior* Principle and the criterion of Naturalness, the SU dialects may be seen to innovative, eliminating the anomaly. A change in the opposite direction would be completely unmotivated.[13]

Turning our attention again to the Differentiator Matrix, it is clear that the Central dialects definitely stand out in the number of features (i.e., isoglosses) which separate them from the other groups. Eight of them (1, 2, 3, 5, 6, 8, 12, and 13) distinguish the Central group from the others combined. Therefore in terms of Quantitative Classification the Central dialects are certainly the most distinct group.

In order to consider the question from the point of view of Genetic Classification, the final column was added to the Differentiator Matrix, in which the group which innovates with regard to each differentiator is indicated. In the case of the Ablative, the Durative, and SR=, where the evolution probably involves various innovations, the

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[18]A further difficulty for those who consider the changes affecting the verbal 1st person marker (1SU) to be the oldest in the evolution of Quechua is the fact they are not mentioned the colonial sources which list the peculiarities of "Chinchaysuyo." Figueredo (1700) cites the 1st person in the past tense as being "rcá" (*-rqa-:*); but, as we have just seen, this is an instance of the possessive marker 1POS, not the verbal marker 1SU.

innovators are not specified. Examining this column we find that though the Central dialects are highly innovative (1, 2, 3, 6, 7, 12, and 13), not a single innovation is shared by them and any other group. Even more interesting is the fact that not even one innovation is shared by the Southern and North Peruvian groups. What this means is that there is no basis for either of the following genetic classifications:
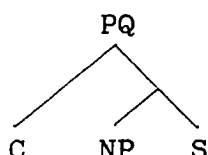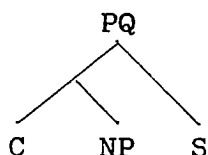
It is the Tree on the right which embodies the claims regarding Parker's "A" and "B" branches or Torero's "QI" and "QII". Since no shared innovation supports this tree, we are forced to conclude that both Parker's and Torero's proposals fail as genetic classifications. One might try to salvage them by searching for still other innovations, but the Differentiator Matrix above contains the major ones that have been proposed to date.

This serves to illustrate the vastly different results which may result from the "Isogloss Bundle" method and strict application of the Shared Innovation Principle. But it also is an example of an inherent limitation imposed by the reliance on this principle, one which could be called the "Conservative Non-Recoverability Limitation." We have already noted that not all past events are recoverable as history. This is not only due to the fact that certain changes can erase the evidence of previous ones. It is also due to theoretical limitations inherent in the

methodology. The one I wish to consider here is simply a logical corollary of the Shared Innovation Principle itself.

We have seen how divergence results when an innovation affects part of a uniform area, splitting it into two dialects, one innovative, the other conservative. These two are essentially equal as to their evolutionary possibilities; that is, the potential of each for further innovation is the same. However, if each is fragmented by subsequent change, thus becoming a subgroup, the recoverability of the two subgroups is not equal, even theoretically. The members of the innovative subgroup by definition share a change which allows them to be later identified as a genetic subgroup, namely the original innovation. The conservative subgroup shares no such innovation and therefore is not so easily recoverable as a genetic unit.

For example, suppose that an innovation I_1 splits an area into dialects A and B, where A is the innovator (i.e., is $[+I_1]$). If a second innovation I_2 further subdivides A into A_1 and A_2, then the evolution is

$$I_1$$
$$I_2 \quad A$$
$$A_1 \quad A_2 \quad B$$
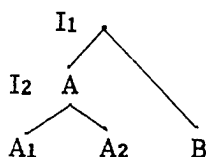
which is recoverable since A_1 and A_2 share the innovation I_1.

If, on the other hand, I_2 were to affect B instead (B_1 being the innovator), the evolution would be,

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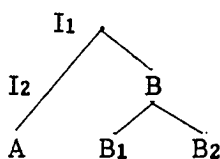
which is <u>not</u> recoverable, since B₁ and B₂ share no innovation. We would only be able to tell that the above is the correct evolution if we had independent evidence that I_1 is chronologically prior to I_2. In the absence of such evidence the following two would be equally plausible:


B would also become recoverable if another innovation affected it before I_2 divided it, but nothing guarantees that this would happen.

The Conservative Non-Recoverability Limitation, therefore simply states that groups of dialects which are defined by their conservatism with regard to a particular innovation <u>may</u> not be methodologically recoverable as genetic subgroups, even though historically they may have been such. This is really just what was stated earlier to the effect that "shared retentions prove nothing about subgrouping," and is due to the secondary or indirect nature of the evidence provided by the Shared Innovation Principle. The result of this Limitation is indeterminacy in the reconstructed evolution.

It should be recalled that in general lack of evidence FOR a particular hypothesis is not the same as evidence AGAINST it. We have

just seen the highly innovative nature of the Central dialects, and I
have argued earlier for the conservative nature of a number of features
of the other groups as a whole, such as, 1POS, 1SU, 1OB, the Locative,
and the Ablative. This means that it is quite plausible that the Central
dialects were the first to break away from Proto-Quechua as the
classifications of Parker and Torero would generally indicate. The
reconstructions of both authors (but especially Parker) would portray
the Central dialects as somewhat more conservative than I have, and
would indicate that it was the non-Central dialects that innovated and
broke away. Nevertheless, the same major division of dialects would
result. If the Central dialects are seen as the principal innovators and
the others as conservative, the Limitation we have just examined would
account for the lack of empirical evidence in favor of the hypothesis
most wish to support.

This, however, does not argue in favor of the particular
hypothesis in question. The fact that no shared innovations were found
forces us to admit that the relations between the three groups is
indeterminate. All of the following are possible:
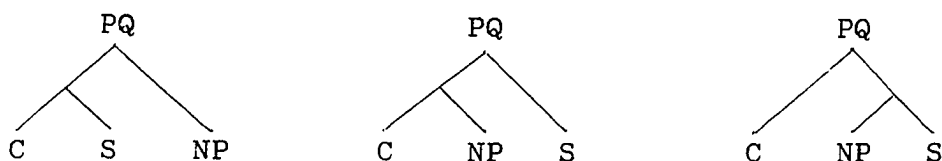
The virtually universal inclination on the part of investigators
toward the right-most tree is undoubtedly based on criteria of
similarity, which, as we have seen, are not always reliable. We

reluctantly conclude, therefore, that the question of the internal relations between these three groups remains unresolved.

4.5. CONCLUSION

We have examined the overall picture of Quechua dialects, we have reviewed the major issues in the theory of classification, and we have examined the various classifications proposed to date and measured them by the yardstick of accepted methodology. We have now examined some of the major issues of Quechua classification in the light of the methodology and the facts. Clear answers have not always resulted, but we have tried to indicate the direction in which these would lie, remembering that success is not guaranteed, and definitive answers may never be reached. After all, after more than a hundred and fifty years of intense research, no satisfying genetic classification of Indo-European languages has been forthcoming. The reason is clear. In spite of the quantity and quality of reconstruction done to date and the elucidation of the innovations involved, it has not been possible to reach solid conclusions about the chronology of these innovations and the extent to which they may be due to mutual influence.

It is not the case, however, that the point has been reached where all of the interesting questions concerning Quechua will have to be left open. More careful research, some of which is most urgent, due to the fact that a number of the crucial dialects are on the verge of extinction, along with conscientious application of the methodology should yield a whole harvest of new insights.

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