CHAPTER 12

Afro-Hispanic varieties in comparison

New light from phylogeny

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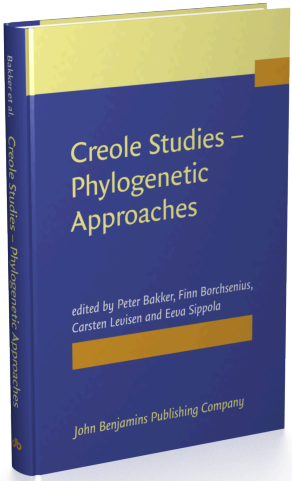

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CHAPTER 12

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This study examines the potential of phylogenetic analysis in the classification and comparison of Spanish contact varieties, with special focus on three Afro-Hispanic varieties spoken in South America. Our analysis is based on typological and dialectal comparative data. The results of the phylogenetic analysis show clear clusters of standard varieties and creole varieties, while the placement of other contact varieties in the network has to be interpreted in the light of the data collection methods and socio-historical information about the varieties.

Keywords: Afro-Hispanic, classifications, Spanish-based creoles, Spanish varieties

12.1 Introduction

This chapter explores the use of phylogenetic analysis in the comparison and classification of different Spanish-related varieties, with special focus on three Afro-Hispanic dialects. These are dialects or contact varieties spoken by communities of African descent in South America that exhibit a particularly high degree of variation on a continuum between rather standard-like and more vernacular features. This variation, added to the socio-historical evidence of intensive language contact, gives rise to discussions on how they should be classified (cf. Lipski 2005) and on whether or not certain Afro-Hispanic varieties stem from a creole ancestor.

This study analyzes both the phonological and morphosyntactic traits of a number of Afro-Hispanic varieties and Spanish-based creoles, as well as other varieties of Spanish spoken on four different continents. The data come from fieldwork corpora (collected by Perez and Sessarego), typological databases (Dryer & Haspelmath 2013; Michaelis et al. 2013), and published literature (Lipski 1985a, 1985b, 1987a, 1988, 1994a, 2007a, 2007b, 2008; Penny 2004; Quilis & Casado-Fresnillo 2008). The analysis is based on statistical modelling and computational

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tools for quantitative typology that are suitable for studying language contact situations (Daval-Markussen & Bakker 2011, 2012; Huson & Bryant 2006).

One of the aims of the study is to contribute to the classification of different African-descendent varieties of Spanish. In particular, we will compare Afro-Yungueño Spanish (AY) (Bolivia), Afro-Choteño Spanish (AC) (Ecuador), and Afro-Chinchano Spanish (ACh) (Peru), as well as a selection of regional dialects of Spanish and Spanish-based creoles. This analysis will then allow us to graphically picture the distribution of these varieties in a phylogenetic network, which has been built according to the features we selected, and to identify some traits that characterize different varieties.

A second aim of the study is to evaluate the implications of data selection and feature value assignment when studying lesser-documented varieties for which no large-scale variationist analyses or extensive spoken or written corpora exist. We use different sets of data of Afro-Yungueño to examine to what extent they determine the final picture of the phylogenetic analysis. In doing so, we will discuss some of the strengths and limitations of the phylogenetic method in the context of Afro-Hispanic varieties. In Section 12.2, we provide an overview of the Afro-Hispanic varieties included in the comparison and outline the current state of research. Section 12.3 explains the methodology and the feature selection used in the comparison. Sections 12.4 to 12.6 cover the analysis, the results, and the discussion. Finally, conclusions follow in Section 12.7.

12.2 The Afro-Hispanic varieties

The colonial expansion of the Spanish language produced a large number of individual settings in which different dialects of Spanish came into contact with each other as well as with a wide range of other languages. The varieties that emerged from these settings are generally categorized on the basis of two different approaches. They are either classified as national or regional varieties, such as Colombian, River Plate, or Caribbean Spanish, or as typologically similar varieties that have certain dialectal features in common. Among these features are, for example, the use of *vos* instead of *tú* as the second person singular pronoun, or the maintenance or merger of the distinction between /j/ and /ʎ/ and the velarization of the final /n/ (Lipski 1994a). In cases of extreme language contact, new languages, i.e., Spanish-based creoles[1]

1. Due to the wide range of definitions of the term *creole* (for different definitions and characteristic traits, see Bickerton 1981; Seuren & Wekker 1986; McWhorter 1998; Bakker et al. 2011; Mufwene 1997; DeGraff 2005; Thomason & Kaufman 1988; Romaine 1988) and the need for adopting a somewhat stable basis of comparison between language varieties, we will put aside terminological debates and for convenience use the terms *creole* and *dialect* broadly as two varieties that diverge from the lexifier or standard variety to either a greater or a lesser extent, respectively (cf. also McWhorter 2000: 10).

emerged: Palenquero (Colombia), Papiamentu (Dutch Antilles) and Chabacano (Philippines).[2] These varieties are generally distinguished by their lack of noun – adjective and noun – verb agreement and the fact that they also present restructured verbal systems that make use of preverbal TMA markers. These features show a considerable departure from the lexifier and justify the classification of these varieties as creoles (Michaelis et al. 2013; Holm 1988–1989).

Even if we adopt a view that classifies Spanish varieties as either Spanish-lexified creoles or as dialects of Spanish, certain contact vernaculars may still require intermediate categories. We know from the Caribbean setting, for instance, that in some cases it is difficult to reach a consensus about where to draw the line between a dialect and a creole (e.g. Holm 2004; on the dialect vs. creole debate, see also Levisen et al. this volume, Chapter 15). These challenges are particularly pronounced in those varieties of Spanish that display a high degree of variation as vernacular features coexist with more acrolectal variants. In addition, many peripheral contact varieties of Spanish spoken by marginalized communities are still underresearched, and there is a lack of data that would be necessary to document their inventories of structural and lexical features (cf. Lipski 2005: 8).

Afro-Hispanic varieties make a case in point. Lipski (2005) compared several Afro-Hispanic varieties and observed that many of them, in particular the Caribbean varieties, experienced parallel restructuring, which could be the result of the extended contact between Caribbean Spanish and certain creole languages spoken in the region. Sessarego (2013a, 2013b), however, has argued that the majority of the Afro-Hispanic varieties of the Americas that deviate systematically from other native varieties of Spanish may be seen as the result of first-language acquisition (nativization) of advanced second-language grammars, without necessarily following the prototypical creole life cycle of pidginization preceding creolization, with eventual decreolization (cf. Mühlhäusler 1997).

One of these varieties is *Afro-Yungueño* Spanish (AY), a contact variety spoken by a small community of African descent in the valleys of Los Yungas in Bolivia. While the total number of Afro-Bolivians amounts to almost 20,000, the most basilectal variety of AY is retained among approximately 200 speakers in the villages of Mururata, Chijchipa, and Tocaña in the Nor Yungas Province, 120 km from La Paz. AY is surrounded by Andean Spanish and Aymara, and its lexicon is principally derived from these two languages. AY was not described until the late 2000s (Lipski 2007a, 2007b, 2008), and even though a considerable body of

2. Some doubts have been raised about the Hispanic origins of Papiamentu and Palenquero, and several scholars have suggested that they should be better analyzed as Portuguese-based creoles that subsequently underwent a process of Spanish relexification (cf. Goodman 1987; Martinus 1989; Schwegler 1993, 1999, 2014; McWhorter 2000; Jacobs 2009). Nevertheless, for the sake of simplicity, we will not go into the details of these debates, and we will classify them as Spanish creoles.

literature on AY has now been produced, no unanimous classification of its varietal status has been reached. On the one hand, Lipski (2008) and Perez (2015) have both argued that AY is likely to stem from a creole; Lipski (2008: 186) concluded that AY originates from a 16th century Afro-Hispanic pidgin, while Perez (2015) proposes that an 18th century Portuguese-based contact variety is likely to have been involved in its formation.[3] On the other hand, Sessarego (2013b: 364) classified AY as a dialect of Spanish that resulted from "untutored second language acquisition processes, which could crystallize and survive in Los Yungas"; in other words, he argued that AY does not stem from a creole. The data presented in these debates so far has mainly focused on patterns of morphosyntactic simplification, such as the lack of gender and number agreement, as in *lu casa viejo* [PL house old] vs. Sp. *las casas viejas* [ART-F.PL house-PL old-F.PL] 'the old houses', or the reduced verbal paradigm based on the third person singular, as in *nohotro yora* [1PL cry] vs. Sp. (*nosotros*) *lloramos* [(1PL) cry-PRS.1PL] 'we cry'. In light of this disagreement on the varietal status of AY, new data is needed to further investigate the issue.

Sessarego (2013a, 2015) further contributed to these debates by adding data from two dialects spoken by people of African descent in Coastal Peru and Highland Ecuador. One of them is *Afro-Choteño* Spanish (AC), an Afro-Hispanic vernacular spoken in several rural villages scattered across the provinces of Imbabura and Carchi, Ecuador. This community consists of approximately 12,000 people, who are the descendants of the slaves taken to this region to work on the Jesuit sugarcane plantations during colonial times. Nevertheless, only some 1,000 elderly Afro-Choteños still speak the traditional vernacular, while younger members of the community tend to speak dialects that approximate the local standard, Highland Ecuadorian Spanish. Several articles by Lipski (1987b, 2009) and Schwegler (1999, 2014) proposed an analysis of the main grammatical features found in AC to shed light on its origin. In particular, Schwegler (1999, 2014) ascribed potential Afro-Portuguese creole roots to AC. He claimed that the existence of the third person pronoun *ele* (from Port. *ele* 'he') in this variety suggests that the slaves who entered Chota Valley in colonial times could have spoken a creole-like Afro-Portuguese contact variety (in partial support of the Monogenetic Hypothesis, cf. Granda 1968, 1970). Lipski (2009) provided a different account of the presence of *ele* in AC by seeing this element as the result of a paragogic process of final *– e* insertion affecting several items across the AC lexicon (e.g., *mujere* from Sp. *mujer* 'woman', *ayere* from Sp. *ayer* 'yesterday', etc.). In a recent study, based on

3. The latter claim is in line with McWhorter's (2000) hypothesis that the Spanish creoles in the Americas descend from a Portuguese-based ancestor. Given its relatively recent inclusion into the discussions, however, AY was not considered by McWhorter, who simply mentions the absence of a creole in Bolivia as the result of unfavorable socio-historical conditions (McWhorter 2000: 34).

field research carried out in the Afro-Choteño villages,[4] Sessarego (2013a, 2014b) supported Lipski's account; moreover, he provided an analysis of the available socio-historical evidence for AC, which indicates a low possibility of stable creole formation or the introduction of a creole in the region.

Afro-Chinchano Spanish (ACh) is an Afro-Hispanic vernacular spoken in rural areas of the province of Chincha, Department of Ica, Peru, more precisely in the villages of San Regis, San José, El Guayabo, and El Carmen. This dialect is spoken by a few hundred people, mainly elderly Chinchanos who descend from the slaves taken to this region during the 17th century to work on Jesuit sugarcane plantations. Romero (1987, 1988, 1994) and Lipski (1994b, 2005) described the main features of Afro-Peruvian grammar by analyzing literary works, theatrical texts, and traditional songs from the 17th–20th centuries that reported Peruvian *bozal* speech. In addition, Cuba (2002) offered the first synchronic account of Afro-Peruvian Spanish by investigating the speech of the Afro-Chinchano communities mentioned above. More recently, Sessarego (2014a, 2015) has provided a new account of ACh grammar where no creole features are reported. In addition, he has shown socio-historical evidence for the Afro-Chinchano region that does not support an earlier creole phase for the variety.

Map 12.1 Afro-Hispanic varieties included in the study.

4. Tumbabiro, Carpuela, Chota, Santiago, Chalguayacu, Chamanal, Concepción, Caldera, and Cuajara.

Based on these socio-historical data, and on the overall grammatical similarities between AC, ACh, and standard Spanish, Sessarego has concluded that these Afro-Hispanic vernaculars, along with AY (cf. Sessarego 2011, 2013b, 2014c), may be seen as the result of the nativization of advanced second-languages, rather than as former creoles (cf. Sessarego 2013c).

In brief, we have seen that the debates about the status and possible earlier creole stages of Afro-Hispanic varieties in South America are still ongoing. The main aim of this chapter is to add new input to these debates.

12.3 Sample and methodology

The analysis focuses on AY, AC, and ACh, which are compared with a number of varieties of Spanish and Spanish-based creoles. The Afro-Hispanic varieties were selected according to the availability of contemporary data collected during fieldwork (Lipski 2007a, 2007b, 2008; Sessarego 2011, 2013a, 2015; Perez unpublished field data). Data for the Spanish creole varieties were extracted from the APiCS database (Michaelis et al. 2013) and include Palenquero and Papiamentu in Latin America and Cavite Chabacano, Ternate Chabacano, and Zamboanga Chabacano from the Philippines. The Spanish dialectal data were compiled from secondary sources (mainly Lipski 1985a, 1985b, 1987a, 1988, 1994a; Penny 2004; Quilis & Casado-Fresnillo 2008). These varieties can be divided into two main types: standard varieties, such as Argentinian, Bolivian, Cuban, Peninsular, and Mexican Spanish, and varieties influenced by second-language speaker effects, such as those spoken in the Andean Highlands, Equatorial Guinea, the Philippines, and the Sabine River region (United States). Their principal adstrate languages are Quechua/Aymara for Highland Andean Spanish, Bantu languages for Spanish in Equatorial Guinea, Tagalog for Philippine Spanish, and English for Sabine River Spanish.[5] In addition, data points have been filled in for Judeo-Spanish,[6] a variety spoken by Sephardic communities. These varieties are similar to the Afro-Hispanic varieties in that their typological profile has been claimed to show influence from other non-Romance languages, or to show influence from processes of second-language acquisition, language attrition, and language shift. We decided to include these varieties in the sample in order to provide a wider base of comparison and contrast for the Afro-Hispanic varieties.

5. Sabine River Spanish was also in contact with French at an earlier stage (Lipski 1988: 6).

6. The data cannot be taken to be characteristic of one specific variety, but rather of an imagined standard described in Penny (2004).

Our sample is based on a combination of features from three sources: general typological features listed in the *World Atlas of Language Structures* (WALS, Dryer & Haspelmath 2013), typical contact language features from the *Atlas of Pidgin and Creole Structures* (APiCS, Michaelis et al. 2013), and features typical of Spanish dialectal variation (Lipski 1994a). The main feature set for this study is based on the 48 shared APiCS and WALS features. This is the most comprehensive typological database that includes both contact varieties (in APiCS) and the Spanish lexifier (WALS), and thus it offers a solid typological feature set designed especially for contact languages (see also Bakker et al. 2013 for similar typological datasets). The 48 structural features are mainly drawn from morphology and syntax (see Table 12.1).

In addition to the APiCS/WALS features, we designed a set of 24 features that commonly vary across Spanish dialects: at the phonological level, we selected the aspiration of /s/, the neutralization of phonemic distinctions, such as *yeísmo* (/ʎ/ > /j/), and alterations in unstressed vowels (e.g. /e/ > [i]; /o/ > [u]), among others (see Appendix 12.1 for the complete list of features). At the morphosyntactic level, we selected dialectal features that are typical of second-language and learner varieties of Spanish, such as variable subject – verb and noun – adjective agreement, the use of disjunctive object pronouns instead of clitics, the variable use of the copulas *ser* and *estar*, and non-standard uses of common prepositions (Lipski 2007a: 176).

The analyzed feature sets and data entries are listed in the appendix. The division between the APiCS feature categories in our sample is presented in Table 12.1. In our feature set, the lexicon is underrepresented compared to other areas of grammar due to the unavailability of comparable data. Phonology and nominal categories have the highest numbers of features.

Table 12.1 Feature categories in the sample.

Category	Number of features
Phonology	16
Nominal categories	15
Word order	9
Clausal syntax	7
Argument marking	7
Nominal syntax	6
Verbal categories	5
Negation, questions, focusing	3
Complex sentences	2
Lexicon	2
Total	72

Feature values were manually coded into a matrix. The most common value range for a feature was binary (50 features, e.g. "Is there inclusive/exclusive distinction in independent personal pronouns?"), followed by features that originally had multiple values, but resulted in one shared value for all the varieties (for shared features for Iberian creoles in APiCS see also Sippola this volume, Chapter 11). Only four features had multistate values with four value options. Testing in which these multivalue features were transformed into binary features did not provide significantly different results.

The two principal AY datasets were individually and independently prepared by Perez and Sessarego and are based on language samples collected during fieldwork. Nevertheless, it is important to point out that their methodologies and research focuses varied. Sessarego's main focus was on phonological and morphosyntactic structures (2014c), and he conducted the interviews himself and carried out follow-up conversations with the informants in order to complement the data by eliciting specific structural features. Perez, by contrast, aimed at documenting AY by working with community members who made the recordings themselves. In addition, she collected field notes during participant observation. The third fieldwork corpus on AY was taken from the data provided by Lipski's (2008) book, which includes data from interviews on oral history provided by an Afro-Bolivian historian. The datasets on Afro-Choteño and Afro-Chinchano Spanish were collected and prepared by Sessarego with similar goals and methods as for his AY corpus (2014a, 2014b).

The creole datasets in APiCS were prepared by experts in each language, and the feature values are often based on fieldwork data. Finally, the Spanish standard and dialectal varieties included in the comparison are of a rather different data type. Dialect atlases containing comparative language data from the Spanish-speaking world are rare or only partially compiled, and the features focus mostly on the lexicon and phonology (see, for example, Prieto et al. 2010–2014). We therefore decided to rely on secondary sources, collecting information from published articles and books. To evaluate the validity of the data from lesser-studied varieties, they were complemented by our own observations and fieldwork data from the Philippines and South America.

Distance-based methods of phylogenetic analysis have been employed in the study of contact varieties (Daval-Markussen & Bakker 2011, 2012; other chapters in this volume), although conflicting views on the use of such tools have also been presented (DeGraff 2012; DeGraff et al. 2013). Here the software SplitsTree4 (Huson & Bryant 2006) is used to provide an overview of the classification of the varieties in phylogenetic networks using Neighbor-Net (Bryant & Moulton 2004). As explained above, the primary typological feature values are first converted

into a matrix. Then the software is used to calculate the difference between each language in the sample by means of combining all the differences and similarities between the languages into a single distance measure. The resulting unrooted network is based on language similarities and differences and does not embody language evolution as such (Wichmann et al. 2011: 207). In this case, the internal nodes of the graph represent the conflict between the different splits in the data analysis. Contradictory groupings of taxa produce a conflict of the signal and a high amount of webbing in parts of the network. This method therefore provides an overall picture of the similarities and differences between the varieties studied, and thus it is a useful tool for evaluating the typological status of languages that have not yet been conclusively classified.

Typological features are generally structural characters that have few possible values, which leads to high rates of chance resemblance. In addition, their values are often linked through dependencies and implicational universals, and many values have a functional, external motivation (Croft 2008: 230). This is one reason why comparative linguistics with a diachronic approach has mainly focused on sound changes and lexical differences. However, typological features nevertheless offer a useful basis of comparison along predefined feature values and are therefore most suitable for synchronic clustering/similarity measurements (Haspelmath 2010), such as in the ones used in Sippola (this volume, Chapter 11) and the ones we are aiming for in our study.

12.4 Results of the phylogenetic network analysis

The first analysis of the 48 shared APiCS/WALS features is based on a balanced sample of Afro-Hispanic varieties, standard varieties of Spanish, and other dialects, as shown in the following graph made in SplitsTree (Figure 12.1). The data used for Afro-Yungueño in the network is from Sessarego (Afro-Yungueño S). The three creole varieties are located on one end of the network with long independent lines, which reflect the particular language contact scenarios, i.e. the geographical distance and typological divergence, of these varieties vis-à-vis the others. All the other varieties are on the opposite end of the network, and interestingly, the Afro-Hispanic varieties are located separately close to the part of the network where standard varieties appear.

In a nearly identical analysis, for which Perez's data on Afro-Yungueño (Afro-Yungueño P) were used instead of Sessarego's, we obtain the network in Figure 12.2. Here Afro-Yungueño has moved closer to the creole cluster of the network. It is close to Palenquero in particular and is clearly separate from Chota

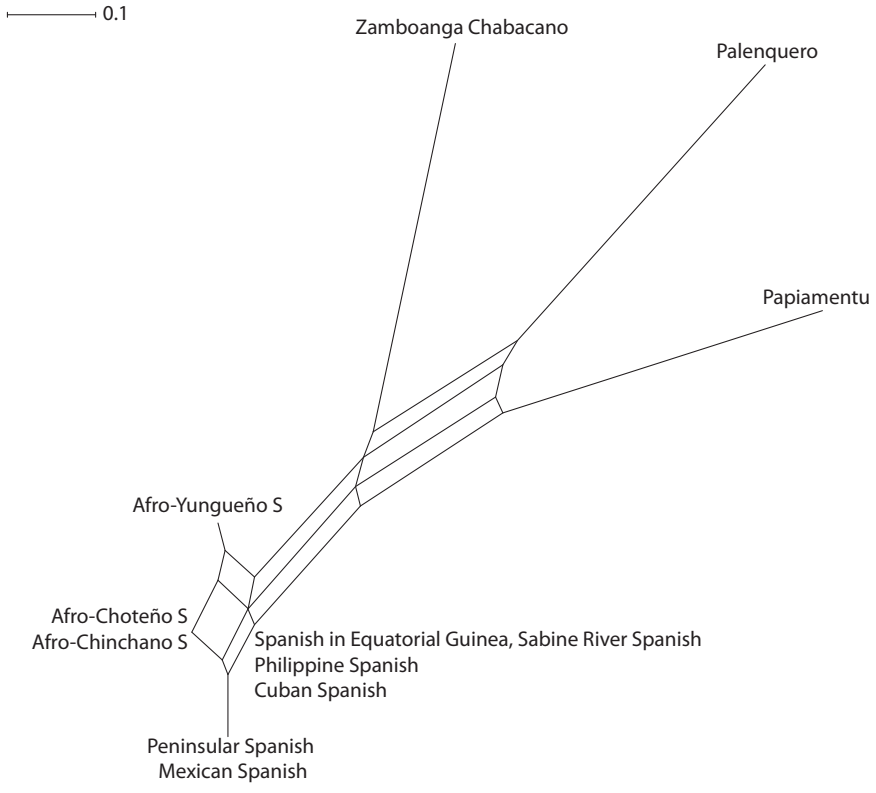

Figure 12.1 Afro-Hispanic varieties (dataset from Sessarego), standard varieties of Spanish, other Spanish dialects, and creoles in a 48-feature Neighbor-Net.

Valley and Afro-Chinchano Spanish, which are both relatively close to the Spanish standard and dialectal varieties. Apart from this change, the rest of the network remains the same as in Figure 12.1. It is thus evident that there are differences in Perez's and Sessarego's data and analyses of Afro-Yungueño.

Let us now increase the number of features in the sample by adding the 24 Spanish dialectal features into the network analysis. We get 12.3a with Sessarego's data and 12.3b with Perez's data. We can conclude that the dialectal features do not significantly affect the clustering of the Afro-Yungueño datasets used in this study. Nevertheless, it is evident that the two datasets place Afro-Yungueño again in two nearby, but somewhat different, positions of the network. According to Sessarego's data in Figure 12.3a, Afro-Yungueño is closer to other Africanized varieties that are not generally held to have creolized, but rather experienced the effects of second-language acquisition. Perez's data in Figure 12.3b, by contrast, indicate that Afro-Yungueño is closer to the Spanish-derived creoles than to most

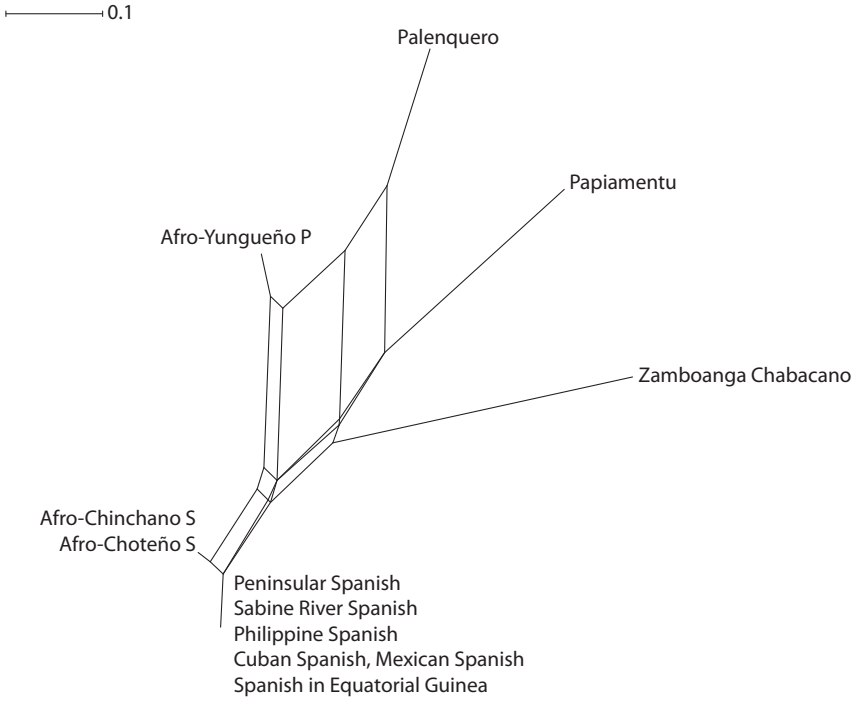

Figure 12.2 Afro-Hispanic varieties (datasets from Perez on Afro-Yungueño and Sessarego on Afro-Chinchano and Afro-Choteño) compared with standard varieties of Spanish, other Spanish dialects, and creoles in a 48-feature Neighbor-Net.

other varieties. Furthermore, the longer line in 12.3b suggests that, on the basis of Perez's data, Afro-Yungueño shows more unique traits and is typologically more distant from other varieties of Spanish than it is according to Sessarego's data.

By increasing the number of varieties to 21, including all three different datasets for Afro-Yungueño (data from Lipski 2008, Perez, and Sessarego), and running an analysis of the 72 features, we obtain Figure 12.4. Languages that were classified as standard varieties of European and Latin American Spanish appear on the bottom side of the network in a clear cluster that shows short independent branches for each variety. In other words, they are relatively similar to one another. On the upper side of the network, we find the creole varieties. However, as in the previous networks, these are not as tightly clustered together as the standard varieties of Spanish since considerable structural differences prevail. Between these two ends, we observe both Afro-Hispanic varieties and other varieties that underwent deeper restructuring due to the effects of second-language speakers, i.e. the varieties spoken in Equatorial Guinea and the Philippines, as well as Andean Spanish with

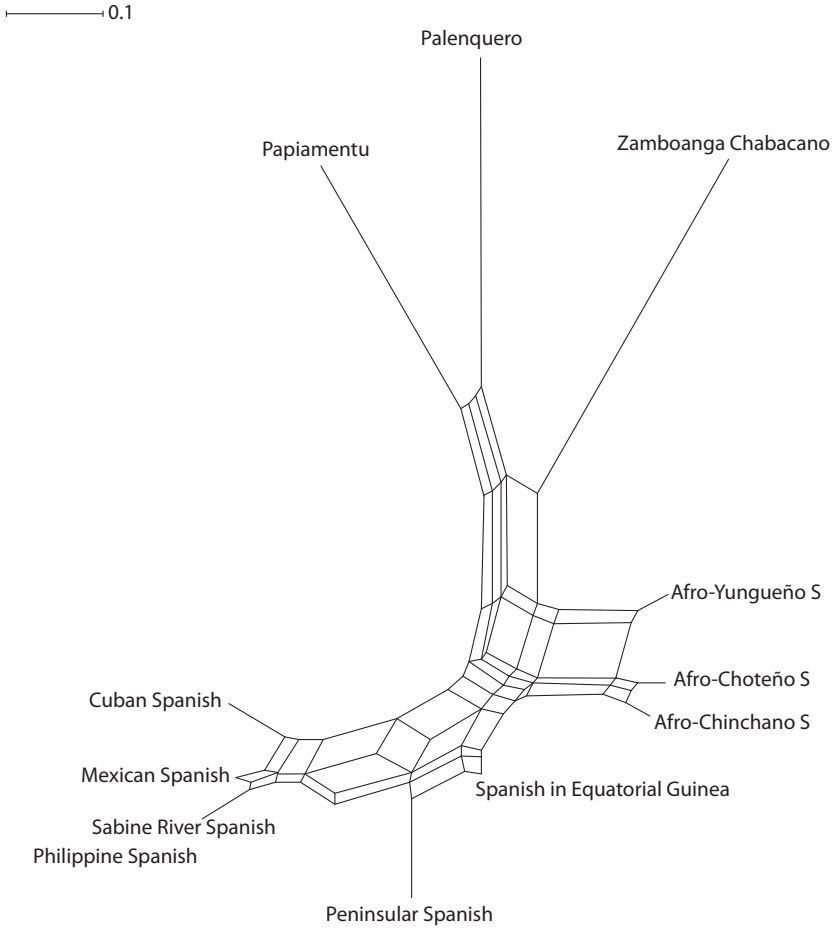

Figure 12.3a Sessarego's data on Afro-Hispanic varieties compared with standard varieties of Spanish, other Spanish dialects, and creoles in a 72-feature Neighbor-Net.

its significant adstrate influence. In other words, we find a gradual classification with creoles located on one end of the network, standard varieties located on the other end, and contact-influenced varieties located in different positions between these two groups. This corroborates claims that Africanized and other contact-influenced varieties have undergone certain degrees of restructuring, yet their typological status appears to still diverge significantly from the three Spanish creoles considered here. Holm (1992, 2004), for example, reached similar conclusions and proposed the terms *semicreole* and *partially restructured language variety* for this type of contact variety.

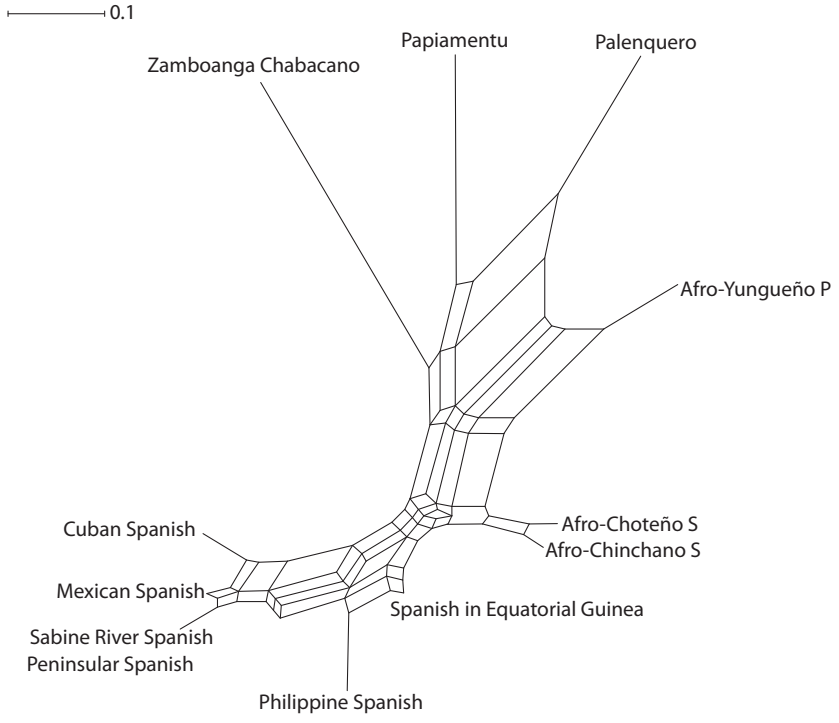

Figure 12.3b Perez's data on Afro-Yungueño compared with Sessarego's Afro-Hispanic varieties, standard varieties of Spanish, other Spanish dialects, and creoles in a 72-feature Neighbor-Net.

With regard to Afro-Yungueño, it is striking that its position in the network in Figure 12.4 reflects the different current claims about its varietal status. Sessarego's dataset is again farther away from the Spanish-based creoles, which is in line with his claim that Afro-Yungueño should not be considered a creole. Perez's dataset, conversely, places Afro-Yungueño typologically closer to the other creole varieties, which supports her claim of Afro-Yungueño being a creolized variety, or a descendant of one. Similarly, the dataset provided by Lipski (2008) is in close proximity to Perez's dataset, as is his claim that Afro-Yungueño is typologically "the most radically restructured variety of Spanish spoken natively, not only in the contemporary Spanish-speaking world, but in all of the known history of the Spanish language" (Lipski 2008: 186). The positions of the three different datasets in the network thus represent the individual claims advanced by each researcher, which ultimately also underscores the solidity of the conclusions drawn from the different datasets and analyses.

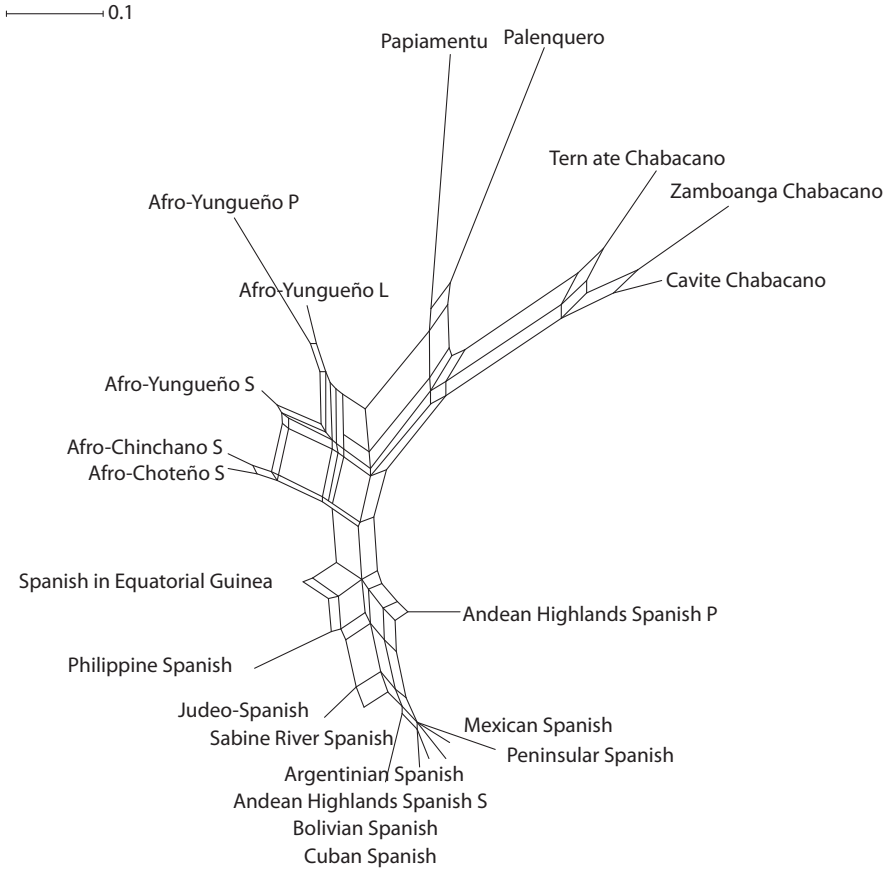

Figure 12.4 A Neighbor-Net network based on 72 features including three datasets on Afro-Yungueño, other Afro-Hispanic varieties, standard varieties of Spanish, creoles, and other Spanish dialects.

12.5 Discussion of classifications and characteristic traits

As the former section has shown, phylogenetic networks provide a useful tool for visualizing the different analyses of the typological status of a variety based on different sets of data. The varying position of the Afro-Hispanic varieties between the first-language dialects and the Spanish-lexified creoles illustrates the reason for the discussions of their respective statuses. This is also the case for the three datasets on Afro-Yungueño: Lipski and Perez claim that it could be classified as a creole, and the phylogenetic analysis where Afro-Yungueño is positioned closer to the creole varieties supports this classification. On the other hand, the network

also underpins Sessarego's claim that Afro-Yungueño should be categorized as a nativized advanced second-language variety (cf. Sessarego 2013c). These results suggest that both the nature of the data and their analysis determine the classification of a variety. Indeed, in some cases the same feature may be interpreted in different ways according to the authors' view; see, for example, Perez's (2015) and Sessarego's (2016) contrasting analyses of the status of Afro-Yungueño *pue* (< Spanish *pues* 'thus, so'). On the basis of the data provided here, we can nevertheless propose features that are essential in the typological classification of the Afro-Hispanic varieties.

In general, the Afro-Hispanic varieties shared many feature values with standard varieties of Spanish. These include, for example, the word order features (APiCS features 1–8), lack of inclusive/exclusive distinction, features about indefinite pronouns and articles, demonstratives, numerals, alignment of case marking of personal pronouns, ditransitive constructions with *give*, etc.

In addition, a number of morphosyntactic and phonological features proved relevant for the classification of Afro-Yungueño, Afro-Choteño, and Afro-Chinchano. The morphosyntactic structures shared by all three varieties were non-inverted polar questions, on the one hand, and more importantly, divergences from Spanish in the NP on the other, i.e. the presence of isolated plural markers instead of plural suffixes. AY was further set apart by a certain degree of restructuring of the pronominal system, i.e. the absence of the Spanish binary politeness distinction in second-person pronouns (Sp. *tú*/*vos* – *usted* as *oté* only), the loss of gender distinction in personal pronouns (Sp. *él*/*ella* as invariant *ele*), and the reduction of the lexifier's three-way distance contrast in demonstratives (Sp. *este* – *ese* – *aquel*). To observe the importance of the pronominal system in the features is interesting since to date the discussions on the pronominal systems of these varieties have been marginal and mainly focused on lexical rather than structural aspects (e.g. Lipski 2005: 250–251, Lipski 2008: 98). In sum, the main features that clustered the Afro-Hispanic varieties together belong to the structures of the phonological inventory and the NP.

The phonological features shared by the three Afro-Hispanic varieties studied here are the preference for open CV syllables (either by adding paragogic vowels or omitting syllable-final consonants) and for the replacement of the /f/ by [xw] or [hw]. These features were present in all three datasets (Lipski's, Perez's, and Sessarego's). However, it is a well-known fact that the alteration of /f/ is a common phonological feature found across rural Spanish varieties (see, for example, Lipski 2005: 240–241; Lloyd 1987: 515), and the presence of this element in several Afro-Hispanic dialects may simply indicate their status as isolated, non-urban contact varieties (for more discussion on this point, see Section 12.6).

The differences between the three datasets on Afro-Yungueño are more complex. They mainly concern the verbal system and the prepositional phrase. For example, Lipski (2008: 132) and Perez (2015) analyse certain structures of the verbal system and negation as more divergent from the lexifier than Sessarego does. Regarding the verb phrase, for example, they consider *suppletion according to tense*, i.e. the use of only one form per tense as in *nohotro come* [1PL eat-PRS] 'we eat' and *nohotro comió* [1PL eat-PST] 'we ate', as categorical. As for negation structures, Lipski (2008: 138) and Perez both hold that *negative* as well as *bipartite negative particles* coexist, thus recognizing double negation as part of this variety's typological features. These differences explain the varying positions of Afro-Yungueño in the different graphs. In addition, Perez's data indicate further divergences that are not provided in the other datasets. Among these features are the presence of the interrogative particle *pue* in questions, for example, or the non-existence of reflexive pronouns, which entails that *reciprocal and reflexive constructions* are identical in Afro-Yungueño. These features set Afro-Yungueño further apart from the other varieties and account for the longer line in the phylogenetic analysis resulting from Perez's data (see Figure 12.4).

In summary, the features that determined the typological classification of Afro-Hispanic varieties in our study were the open CV syllables, the reduction of the VP and the NP (above all the pronominal system), and non-inverted questions. Additional traits of restructuring, such as changes in the use of prepositions, led to a further convergence between the Afro-Hispanic varieties and the creoles.

Second-language varieties, in fact, display similar features that set them apart. Variation in number and gender agreement, for example, is also present in these varieties. However, given their position closer to the standard (probably due to the influence of the respective national standard varieties, which do not deviate considerably from other standards), these varieties group together, apart from the languages we labelled as "creoles".

These results are in line with Lipski's (2008: 183–184) observations on the features that he considers relevant to determine the creole status of certain Iberoromance contact varieties. His comparison included 13 morphosyntactic features: null definite articles, plural particles, TMA particles, invariant verb forms, non-inverted questions, double negation, negator from *no*/*não*, *to have* as an existential verb, postposed noun phrases as possessives, subject pronouns used as objects, serial verbs, predicate clefting, and, finally, the absence of grammatical gender. Out of this list, Palenquero would display twelve, while Cape Verdean Creole and Afro-Yungueño would present nine features, which led Lipski (2008: 183) to conclude that Afro-Yungueño is typologically close to Cape Verdean Creole Portuguese. Our study included features from Lipski's (2008: 184) list from the outset, i.e. the absence of gender distinctions, invariant verb forms,

non-inverted questions, and double negation. Others were included in the APiCS values (see Appendix 12.1).

However, the results of the phylogenetic analysis do not address the issue of the origins of Afro-Yungueño, i.e. whether it is more likely to stem from a 16th century Hispanic pidgin (Lipski 2008), an 18th century Portuguese contact variety (Perez 2015), or from an advanced second-language variety (Sessarego 2013b). The question cannot be answered without socio-historical evidence about the contact situation (Lipski 2005: Chapter 9, Lipski 2008: 44–45; Singler 2008).

12.6 Reflections on the method

The analysis of Afro-Hispanic varieties through a network model yielded some very interesting results. On the one hand, we were able to shed light on the classification of these varieties, as it has become evident that the varieties are placed on a continuum in which clear-cut classifications can be difficult to reach. On the other hand, we showed that different authors' datasets on the same variety, in this case Afro-Yungueño, can result in different outcomes. We will briefly discuss the possible reasons behind the differing results and assess their implications for the method used. Our aim is to reveal some of the pitfalls in the study of lesser-documented varieties through large-scale computational methods.

The clustering of Afro-Yungueño as either a creole-like or a dialectal variety in the networks can be due to differences at the level of (a) data collection and data type, (b) grammatical analysis, (c) feature selection and value assignment, and (d) the mathematical model chosen in the phylogenetic analysis. It is especially relevant to keep in mind the first three levels of analysis, which range from the speech level to the value assignments for features, in the case of lesser-studied and under-documented varieties for which no corpora or dialectal databases exist.

From a methodological point of view, cross-variety comparisons should be based on the principle of accountability based on corpora or fieldwork data where the described lect can be extracted and defined with precision regarding, for example, the axes of formality, register, and extra-linguistic factors, such as age, sex, gender, and education. However, for practical reasons an idealized comparison variety is often created in large-scale studies. Especially in the case of lesser-studied varieties, such detailed descriptions simply do not exist, and comparative studies have to rely on whatever information is available.

A second factor relating to many levels of analysis is how different corpora are combined in comparative studies. The nature of the reference point varies also in our study: the varieties studied are abstractions, combining very different data types (for discussion in sociolinguistics, see Poplack & Levey 2010: 395). Although

a large part of our data comes from either fieldwork data (Perez, Sessarego) or questionnaire-based typological atlases (APiCS, WALS) that were compiled from descriptive materials, naturalistic corpus data, and expert or native speaker knowledge, variation was not taken into account in the feature value assignment. The variation challenge can be lessened by using two datasets from the same community, as we have shown. However, even if close collaboration has been sought in the process of compiling the data for this study, different authors analyze their data and assign the feature values differently due to theoretical and methodological divergences. An approach that includes checks on the reliability of analysis could help descriptive studies to overcome these challenges. In the present study, the datasets varied considerably regarding the method of data collection and the purpose, as well as the analytical framework within which the data were analyzed. In some cases, a certain feature was noticed by all three researchers, yet not all of them classified it in the same way; for example, the *expression of pronominal subjects* in Afro-Yungueño was observed by Lipski, Perez, and Sessarego, yet only Lipski (2008: 100) and Perez see this feature as categorical in the basilect. On the basis of these criteria, the final networks now suggest that the proportion of basilectal data, or their analysis as such, may be higher in Perez's dataset (see Sessarego 2016 for additional divergences between their analyses).

Regarding the feature selection, as mentioned in the previous section, the presence of /xw/ or /hw/ for /f/ makes us further reflect on the nature of phylogenetic research and on the risks that a superficial reading of the results may lead to. As this feature is a common rural trait across Spanish dialects, the use of /xw/ or /hw/ per se does not add much to investigating the creole status of Afro-Yungueño, Afro-Choteño, and Afro-Chinchano or their supposed African origins. Along the same lines, a superficial analysis of cross-linguistic vowel systems may lead somebody to conclude that Japanese and Spanish, for instance, have much in common, since they share an almost overlapping vocalic triangle. When accounting for similarities and differences, this might be the case, but from a diachronic perspective, these languages do not share a common genetic origin, and such a comparison may thus yield little insight.

Beyond the bare linguistic data as such, the nature of the language types can vary and also affect the results. Our comparison included several different variety types, i.e. standard varieties, regional dialects, and language attrition situations (Sabine River, Philippines). These sociolinguistic realities range from monolingual situations (Peninsular Spanish) to highly multilingual environments (Equatorial Guinea, Philippines). The results of our study show tendencies regarding the varieties that correlate with these sociolinguistic settings. The creoles and standard varieties resulted in clearly distinct groups, while the other varieties appeared in different positions at the center of the network. Distinguishing between processes

of language-internal variation and contact-induced change is a challenging task (Heine & Kuteva 2005: 8; Poplack & Levey 2010: 392), which is likely to cause "noise" in the network and its interpretation. Similar developments and grammatical features can be observed as a result of all these processes in different languages. This is a fact that might be further accentuated in language attrition and heavy contact situations, such as in the case of the Afro-Hispanic varieties in this study.

Interestingly, no areal signal was detected beyond these creole and standard clusters. Peninsular Spanish, for example, clustered closely with Latin American varieties, and the Philippine creoles and Philippine Spanish appear at different ends of the network. This is not surprising considering the typological similarity between standard and dialectal varieties and also due to the fact that the sample was not geographically normalized between different geographical areas. A similar study on a large number of English-based varieties by Kortmann (2013) produced a clearer areal signal. However, Kortmann's study used a higher number of features and included more unified feature values, which may account for the divergent results. We strongly believe that, although a general trend in classification of the varieties can be induced from our results, caution should be exercised in their interpretation – especially on the level of individual varieties – as the above mentioned factors have a considerable effect on their classification.

12.7 Conclusions

In this chapter we have shed light on the classification of some Afro-Hispanic varieties, with special focus on Afro-Yungueño. Furthermore, we have discussed some of the possibilities and challenges of phylogenetic analysis in the study of closely related varieties, such as regional varieties of Spanish and Spanish-based creoles. Our phylogenetic analysis of selected morphosyntactic and phonological traits supports the classification of the Afro-Hispanic varieties as extreme non-standard varieties of Spanish. However, whether to classify Afro-Yungueño as a creolized variety of Spanish that is decreolizing towards a more standard-like variety, or as a dialect of Spanish that was never a creole, depends on the dataset and the analytical framework used, and the findings should always be corroborated by socio-historical data.

In addition, we have assessed relevant factors that influence the outcomes of phylogenetic studies when linguistic data from large-scale variationist studies or dialectal surveys are not available. Our analysis showed that differences in data types and in analysis, as well as the level of categorical abstraction in typological and dialectal features, can produce varying results. The phylogenetic network provides a useful tool to visualize how these differences are structured.

Notes

The datasets for this chapter can be found here: https://phylogenetic-creole-studies.blogspot.com

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Appendix 12.1 Feature lists

Number	APiCS	Feature
1	1	Order of subject, object, and verb
2	2	Order of possessor and possessum
3	3	Order of adjective and noun
4	4	Order of adposition and noun phrase
5	5	Order of demonstrative and noun
6	6	Order of cardinal numeral and noun
7	7	Order of relative clause and noun
8	8	Order of degree word and adjective
9	12	Position of interrogative phrases in content questions
10	13	Gender distinction in personal pronouns
11	15	Inclusive/exclusive distinction in independent personal pronouns
12	18	Politeness distinctions in second person pronouns
13	21	Indefinite pronouns
14	22	Occurrence of nominal plural markers
15	23	Expression of nominal plural meaning
16	28	Definite articles
17	29	Indefinite articles
18	32	Pronominal and adnominal demonstratives
19	33	Distance contrasts in demonstratives
20	34	Adnominal distributive numerals
21	35	Ordinal numerals
22	36	Sortal numeral classifiers
23	38	Marking of possessor noun phrases
24	42	Comparative standard marking
25	54	Suppletion according to tense and aspect
26	56	The prohibitive
27	58	Alignment of case marking of full noun phrases
28	59	Alignment of case marking of personal pronouns
29	60	Ditransitive constructions with 'give'
30	62	Expression of pronominal subjects
31	70	Comitatives and instrumentals
32	71	Noun phrase conjunction and comitative
33	72	Nominal and verbal conjunction
34	73	Predicative noun phrases
35	76	Predicative noun phrases and predicative locative phrases
36	77	Predicative possession
37	88	Intensifiers and reflexive pronouns
38	89	Reciprocal constructions
39	91	Applicative constructions

Number	APiCS	Feature
40	92	Subject relative clauses
41	97	'Want' complement subjects
42	100	Negative morpheme types
43	102	Negation and indefinite pronouns
44	103	Polar questions
45	108	Para-linguistic usages of clicks
46	112	'Hand' and 'arm'
47	120	Tone
48	122	Nasal vowels

	Number	Dialectal feature
49	1	Loss through heavy aspiration of final /s/
50	2	Verbal infinitive (or base form) ends in /r/
51	3	*Yeismo*
52	4	Phoneme /f/ > [hw] before unrounded vowels
53	5	Neutralization of flap /ɾ/ and trill /r/ distinction
54	6	/r/ > /hr/
55	7	Paragogic vowels added
56	8	Alterations of the type unstressed final [e] > [i]
57	9	Non-fricative V[d]V, or [b], [g]
58	10	Velarization of final /n/
59	11	Assimilation of final /l/ and /r/
60	12	/θ/ exist as a distinct phoneme from /s/
61	13	Alteration/assimilation of /p/ and /f/
62	14	Velar fricative /x/
63	15	Verbal agreement altered
64	16	Noun-adjective agreement altered
65	17	Omissions or heavy alterations of articles
66	18	Invariant plurals
67	19	Use of the 3rd person form of the Spanish verb for other uses
68	20	Omissions and alterations to pronouns
69	21	Use of *vosotros* for the 2nd person plural
70	22	Use of *vos* prevalent
71	23	Use of *lo* as proN OD
72	24	Palatalization of [s] before [i]