

# Phonological Pidginization in the Spanish Spoken by Four Chinese Immigrants

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## Abstract

The present article stems from a research study aimed at analyzing the Spanish acquired naturally by four Chinese immigrants in Costa Rica, from the standpoint of Schumann's Pidginization Hypothesis. In this paper, the degree of phonological pidginization in the informants' Spanish is determined through the identification of deviant features and the establishment of percentages of segmental retention and loss.

**Key words:** Spanish, acquisition, Chinese immigrants, pidginization

## Resumen

Este artículo se desprende de una investigación que tuvo por objeto analizar, con base en la hipótesis de la pidginización de Schumann, el español que cuatro inmigrantes de origen chino habían adquirido de manera natural en Costa Rica. En este documento, se determina el grado de pidginización fonológica del español de los informantes mediante la identificación de rasgos desviantes y el establecimiento de porcentajes de retención y pérdida de segmentos.

**Palabras claves:** español, adquisición, inmigrantes chinos, pidginización

## 1. The Pidginization Hypothesis

In the Pidginization Hypothesis, Schumann (1995) argues that in a situation of acquisition (untutored or natural learning) the level of proficiency that immigrants attain in the language of the host country depends on the psychological and social distance between these immigrants and the native speakers of that language.

Social distance “pertains to the individual as a member of a social group which is in contact with another social group whose members speak a different language” (Schumann 1995, p.267). It comprises societal factors such as the status of the group of immigrants acquiring the second language (L2) in relation to the group of citizens who speak the language natively, e.g. economic domination vs. economic subordination; the integration pattern of the group of immigrants (assimilation, acculturation, or preservation); the degree of enclosure of the group of immigrants; the size of the group of immigrants and the cohesion among its members; the congruence (similarity) between the cultures of the group of immigrants and that of the citizens of the destination country; the attitudes of the two groups towards each other; and the intended length of residence in the receiving country.

Psychological distance, on the other hand, concerns “the individual as an individual rather than the individual as a member of a particular social group” (Schumann 1995, p.272). Schumann asserts that due to the psychological distance or proximity between an immigrant and the citizens of the host country, the former may violate the modal tendency of his group and thus acquire the L2 where he is not expected to do so or do the opposite, that is, fail to learn the target language in a “good” language learning situation.

Psychological distance comprises affective factors such as the resolution of language shock and culture shock, the learner’s motivation (goals of L2 learning), and the relative rigidity of the learner’s ego boundaries.

In agreement with the Pidginization Hypothesis, an individual who is socially or psychologically distant from the native speakers of the target language will not receive enough input to acquire the language or simply will not pay attention to it when it is available. The language this individual learns will only serve a communicative function (mere transmission of referential, denotative information) (Smith 1972), and it will not be enough to mark him as a member of the target language community (integrative function), let alone to consider him linguistically virtuous in the L2 (expressive function). Hence, as Schumann sustains, “his use of the target language will be functionally restricted” (Schumann 1995, p.273), and this functional constraint will in turn trigger a process of pidginization in his second language speech.

Pidginization, a concept taken from the study of languages in contact, refers to a process of phonological, lexical and morphosyntactic simplification of the L2, that renders the linguistic forms produced by L2 learners comparable to those attested in pidgin languages. To pidginize, then, means to simplify and become more pidgin-like. It is important to note, though, that being pidgin-like is not synonym to being a pidgin. Linguists, thus, speak of pidgins and pidginized forms of language. The variety of Spanish spoken by the individuals who participated in the study from which this article stems cannot be considered a pidgin but a pidginized form of Spanish.

In Schumann’s view, pidginization is characteristic of early second language acquisition and results from lack of knowledge of the target language. However, as the learner becomes psychologically and socially closer to the native speakers

of the L2, he gets to interiorize the input he receives, and his speech starts to exhibit more native-like forms. Conversely, if the social and psychological distance persist, one may expect pidginization to persist as well. In sum, pidginization at early stages of acquisition is caused by cognitive constraints, whereas persistent pidginization is triggered by lack of social and/or psychological proximity.

This article centers on phonological pidginization in the Spanish spoken by the research participants. The main purpose is to establish the degree of phonological simplification through the identification of nonstandard traits in the informants' L2 and the establishment of percentages of segmental loss and retention.

## 2. Method<sup>1</sup>

### 2.1. Research Participants

The present article stems from a study carried out between 2007 and 2011 with four male immigrants, ages 50 to 63, who were native of China, either Mainland China or one of its special administrative regions (Macao and Taiwan). Regarding their migratory statuses, one of the research participants was a permanent resident while the other three had been naturalized by the time the study was conducted. Three of the informants spoke Cantonese Chinese as their first language and one of them spoke Mandarin Chinese.

In addition to being Chinese and to speaking Mandarin or Cantonese natively, the informants had to meet the following inclusion criteria:

- To have lived in Costa Rica, specifically and exclusively in San José, for at least one year by the time the research study was conducted
- To have learned Spanish naturally, without or with little explicit instruction, in Costa Rica
- To have reached a level of proficiency in Spanish that allowed them to establish at least basic communicative exchanges and to answer the questionnaire orally
- To be willing to participate in a two to three hour work session
- To be willing to be tape-recorded

To preserve anonymity and confidentiality, the informants were given the following pseudonyms: Fernando, Saúl, Roy, and Rafa.

### 2.2. Procedures

To achieve the objective of the study from which this article stems, a two-to-three-hour work session was carried out with each research participant. During this session, the researcher obtained sociodemographic information about the

informants, gathered data that allowed him to make inferences about the social and psychological distance between them and Costa Ricans, and collected the linguistic corpus to establish the degree of phonological and morphosyntactic pidginization in their L2.

A questionnaire was used to get sociodemographic information about the research participants and to gather data concerning their social and psychological distance from Costa Ricans. Given the focus of the present article, the information collected with this instrument as well as the sections and items it included will not be discussed here.

Most of the linguistic corpus was collected during a semi-structured interview carried out after filling out the questionnaire. It is necessary to point out, though, that all the utterances produced by the informants during the work sessions were integrated in the linguistic corpus, once the informants' permission was granted.

The topics discussed in the interview were chosen by the researcher based on what he felt was missing in the linguistic corpus; for instance, if the informant had produced a lot of sentences in the past while filling out the questionnaire, the researcher opted for topics that elicited the use of present or future tense. Some other topics for discussion stemmed from comments the participants made while reading the informed consent or during the administration of the questionnaire. Some of the topics discussed during the interview were: my childhood in China, my last vacations, my job, my family and friends, my life in Costa Rica, and my plans for the future.

The work sessions conducted with the research participants were tape-recorded and then transcribed in regular orthography in a script manner. Afterwards, the most salient deviant phonological features were identified in the transcriptions.

Having identified the most nonstandard phonological traits, their percentages of retention and loss of segments were established. To do this, the researcher registered the number of times a deviant feature, e.g. elision of word-final /s/, emerged in the sample as well as the number of times it did not, that is, the number of times /s/ was omitted and the number of times it was retained. For instance, Roy used words ending in /s/ 703 times. He dropped the /s/ 401 times and retained it 302 times. These data allowed the researcher to establish a percentage of loss of word-final /s/ of 57.03% and a percentage of retention of the segment of 42.96%. The same process was followed with each salient deviant phonological feature in the Spanish of the four research participants.

By comparing the percentages of retention and loss of segments in the informants' idiolects, it was possible to establish a relative degree of phonological pidginization, in other words, to tell who pidginizes more than whom in terms of pronunciation.

In the following section, the nonstandard phonological characteristics of the Spanish of Fernando, Saúl, Roy, and Rafa are identified and discussed, and the degree of phonological pidginization of their L2 is established.

### 3. Results and Discussion

The most important deviant phonological traits in the Spanish spoken by the informants were the omission of /s/, /d/, /r/ and /l/ and the substitutions of /r/ for /l/ or /d/. As in pidgin languages, these elisions and replacements result from and reflect a process of phonological simplification—or pidginization—that reduces the number of phonological contrasts existing in the target language, in this case, Spanish. The phenomena attested in the informants' L2 were also reported by Figueroa (2008) in his study about the Spanish of a Chinese woman who had migrated to Cuba and had learned this language without explicit instruction in that county.

The omissions and replacements of /s/, /d/, /r/ and /l/ occurred more frequently when the segments were either in syllable-final position (end of internal syllable) or in word-final position, thus favoring the appearance of open syllables over closed ones and rendering the informants' idiolects pidgin-like.

In spite of the fact that most elisions and substitutions were found in final position, it is important to mention that as the degree of phonological pidginization augmented, these omissions and replacements started to appear in other contexts. This led the researcher to conclude that the degree of phonological pidginization is reflected not only on the quantity of segmental omissions and substitutions, but also on the variety of phonological environments where these phenomena occur.

In the following subsections, the omissions and substitutions of /s/, /d/, /r/ and /l/ are discussed in detail. Before proceeding, it is necessary to make a digression to explain how the terms *loss* and *retention* are used in this article.

*Loss* refers to both the partial and the complete affectation of a phoneme. It thus comprises the deletion of the segment and its substitution for another phone. Consequently, the omission of /d/ in medial position and its replacement for /r/ in the same context are both considered instances of loss of /d/. Conversely, *retention* will be used to refer to the realization of the segment in a way that allows the listener, in this case the researcher, to associate the sound he hears with the target phoneme.

#### 3.1. Elision of /s/

In the Spanish spoken by the informants only omissions of /s/ were registered. The segment was deleted both at internal syllable boundary and at word boundary, but, it was always more stable at the end of internal syllables.

Word-final /s/ was most susceptible to elisions when it was the plural morpheme or part of one of its allomorphs. The /s/ at the end of roots or words formed by composition followed in likelihood to be dropped. /s/ as part of a verb conjugation came last. The following are some examples of words in which the segment under discussion was elided in the Spanish of the research participants. The phone that was omitted appears boldfaced in the gloss.

- Omission of the pluralizer or of a part of one of its allomorphs: *muchos tico* “Muchos Ticos/ Many *Ticos* (Costa Ricans)”, *entonacione* “entonaciones/ intonations”
- Omission of /s/ in root words and compound words: *ante* “antes/before”, *dosciento* “doscientos/ two hundred”
- Omission of /s/ as part of a verb conjugation: *volvimo* “volvimos/ we came back.”

As aforementioned, at word boundary the pluralizer was always more apt to elision than the /s/ at the end of root words. Table 1 contrasts the percentages of retention of word-final /s/ in roots and plural words.

**Table 1**  
**Percentages of Retention of Word-Final /s/ in Roots and Plural Words in the Informants' Spanish**

<b>Informant</b>	<b>Retention of Word-Final /s/ in Roots</b>	<b>Retention of Word-Final /s/ in Plural Words</b>
Fernando	82.57%	70.07%
Saúl	60.32%	30.10%
Roy	52.32%	13.89%
Rafa	16.33%	3.28%

The higher vulnerability to omission of the pluralizer at word boundary can be explained by referring to markedness. The plural morpheme is more marked than the /s/ in roots. Both are phonologically marked due to the apparently universal preference for open syllables, but, the /s/ in plural words is also syntactically marked (Payne 1997) due to its semantic content. There might be other explanations for this greater likelihood of the pluralizer to be elided, first language interference among them. However, for the Pidginization Hypothesis what matters is not the reasons behind pidginization but the factors that allow the learner to stop pidginizing and move on to another stage in the acquisition of an L2.

When /s/ was at the end of an internal syllable, it was more resistant to omission than when it occurred word-finally. This is of course connected with the observations made in the previous paragraph. Word-final /s/ might be more prone to fall because it frequently carries the meaning of plurality, and this makes it twice as marked as the /s/ at the end of root words and the /s/ at internal syllable boundary.

Interestingly enough, it was observed that a large number of omissions of /s/ at the end of words did not necessarily correlate with an increase of /s/-deletions word-internally. Consequently, it may be concluded that in the informants' L2 a high percentage of elision of /s/ at word boundary does not entail an elevated proportion of omission at the end of internal syllables, as evidenced in the Spanish of Saúl and Roy. See Table 2 below.

**Table 2**  
**Percentages of Elision of /s/ at Word and Internal Syllable**  
**Boundary in the Spanish Spoken by Saúl, Roy, and Rafa**

Informant	Elision of /s/ at the End of Words	Elision of /s/ at the End of Internal Syllables
Saúl	55%	7.79%
Roy	57.03%	11.35%
Rafa	88.03%	67.73%

Notice the elevated percentages of elision of word-final /s/ in the Spanish of Saúl and Roy and the low percentage of omissions of the same segment at internal syllable boundary. Even in the case of Rafa, who turned out to be the informant with the least command of the Spanish sound /s/, the percentage of elision of /s/ at the end of internal syllables is much lower than that at the end of words.

The following examples, taken from Rafa's Spanish, illustrate the elision of /s/ at internal syllable boundary: *epañó* "español/ Spanish", *etudiá* "estudiar/ study", *fresco* "fresco/ drink (n.)", *mimo* "mismo/same".

Table 3 shows the percentages of retention and loss of /s/ in the Spanish of the research participants.

**Table 3**  
**Percentages of Retention and Loss of /s/ in the Spanish**  
**spoken by Fernando, Saúl, Roy, and Rafa**

Informant	Retention of /s/	Loss of /s/
Fernando	78.69%	21.31%
Saúl	59.11%	40.89%
Roy	56.03%	43.97%
Rafa	17.06%	82.94%

Based on the data presented in Table 3 and taking only /s/ into account, one can establish a continuum of phonological pidginization. Fernando is the least pidginizing informant, i.e. the one who has acquired a better command of the Spanish sound /s/. In contrast, Rafa is the research participant whose idiolect exhibits the highest degree of phonological simplification in this regard (as mentioned earlier). Saúl and Roy fall somewhere in between. As the reader will learn later, this continuum is valid for most of the consonants that were subject to phonological pidginization in the informants' L2.

### 3. 2. Elision and Substitution of /d/

Both omissions and substitutions of /d/ were found in the informants' Spanish. The elisions took place in the idiolects of the four individuals. The replacements were found exclusively in the Spanish of Roy and Rafa, but they were not as numerous as the omissions. The substitutions included /d/-[l]<sup>2</sup>, /d/-[r], /d/-[t], and /d/-[n] (observed only in Rafa's Spanish), as illustrated by the following examples: *nicionar* "diccionario/ dictionary", *nepué* "después/ then", *esturio* "estudio/ study (n)", *iroma* "idioma/ language", *peté* "perder/ lose", *re* "de/of", *verdamente* "verdaderamente/ truly", *célula* "cédula/ Identification document".

Most elisions occurred when /d/ was at the beginning of an internal syllable in intervocalic position and when it was at word boundary<sup>3</sup>. It is important to mention that in Costa Rican Spanish an intervocalic /d/ usually assimilates to the surrounding vowels, thus becoming a voiced interdental approximant (/ð/). A word final /d/ often undergoes the same process.

The aforementioned lenification of /d/, together with a possible interference of the informants' L1<sup>4</sup>, may render the segment difficult to perceive and, consequently, as suggested by the Motor Theory of Speech Perception, difficult to produce (Liberman and Mattingly, as cited in Hide & Van de Poel, n.d.).

The following are examples of the omission of /d/ in intervocalic position and at word boundary.

- Elision of intervocalic, syllable-initial /d/: *mieo* "miedo/ fear", *aentro* "adentro/inside", *Salvaó* "El Salvador/ El Salvador (country)", *traicioná* "tradicional/ traditional", *toito* "toditos/ all of them", *pructo* "producto/ product", *decí* "decidir/decide", *univesiad* "universidad/ university", *toaía* "todavía/still"
- Elision of word-final /d/: *cigurá* "ciudad/ city" (notice the substitution of syllable-initial /d/ in this word), *uté* "usted/ you", *mentalidá* "mentalidad/ mentality", *profundidá* "profundidad/ depth"

The segment being discussed was also sometimes omitted at the beginning of words. Elisions in this context were much less frequent than those observed word-finally and intervocalically, and they always took place when the initial /d/ was both preceded and followed by a vowel. Hence, the phenomenon can be regarded as an extension of the lenifying effect of vowels on the plosive beyond word boundary. The following are some instances of words in which this deviant trait emerged.

- Elision of word-initial /d/: *ialecto* "dialecto/ dialect", *e* "de/of", *iría* "diría/ I would say", *elante* "delante/ in front of", *onde* "donde/ where"

Very few omissions of /d/ were registered at the end of an internal syllable, in consonant clusters, and between a nasal or liquid and a vowel. In the latter two phonological environments, /d/ was particularly resistant to omission. Some examples follow.

- Elision of /d/ at the end of an internal syllable: *aministrá* “administrar/ administer”, *aministración* “administración/ administration”, *adquisición* “adquisición/ acquisition”
- Elision of /d/ in consonant clusters: *piera* “piedra/stone”

Only three omissions of /d/ in consonant clusters occurred in the corpus collected for the research study from which this article stems. All of them happened in the Spanish of Roy in the word listed above.

- Elision of /d/ between a nasal consonant and a vowel: *trabajano* “trabajando/ working”, *munó* “mundo/ world”, *inígena* “indígena/ indigenous person”, *verá* “verdad/ Right (Tag word)”, *prenió* “aprendió/learned”

Table 4 displays the percentages of retention and loss of /d/ in the Spanish of the four informants.

**Table 4**  
**Percentages of Retention and Loss in the Spanish of Fernando, Saúl, Roy y Rafa**

Informant	Retention of /d/	Loss of /d/
Fernando	67.19%	32.81%
Saúl	50.16%	49.84%
Roy	17.26%	82.74%
Rafa	20.53%	79.47%

After establishing the percentages of loss (omission and substitution) and retention of /d/, one can conclude that, regarding this Spanish sound, Fernando and Saúl are the least pidginizing informants. In contrast, Roy and Rafa are the ones whose idiolects exhibit a higher degree of phonological simplification.

### 3.3. Elision and Substitution of /r/

Both elisions and substitutions of /r/ were found in the Spanish of the informants. The omissions of the segment occurred much more frequently than its replacements. No deletion of the flap was found at the beginning of words.

The phonological environment where the omissions of /r/ occurred was different for Fernando and Saúl and Roy and Rafa. In the Spanish of the former research participants, the segment was elided most frequently when at internal syllable boundary, whereas in the idiolects of Rafa and Roy most of the omissions took place at word boundary. The following are examples of the elision of the flap.

- Elision of /r/ at the end of an internal syllable: *témino* “término/ term”, *ejecía* “ejercía/ practiced (an occupation)”, *sopresivamente* “sorpresivamente/ suddenly”, *ejecicios* “ejercicios/ exercise”, *Agentina* “Argentina”, *fomal* “formal/formal”, *sin embargo* “sin embargo/ even so”, *Potugá* “Portugal”, *fuertísimo* “fuertísimo/ very strong”, *cotá* “cortar/cut”, *amuezo* “almuerzo/ lunch”, *pemanente* “permante/ permanent”
- Elision of /r/ at the end of words: *mejó* “mejor/ better”, *cualquié* “cualquier/ any”, *familia* “familiar/ relative”, *hablá* “hablar/ speak”, *podé* “poder/ be able to”, *decí* “decir/ say”, *po* “por/ by”, *asesó* “asesor/consultant”, *su* “sur/ south”

Most of the substitutions took place at word boundary. However, some of them occurred at the end of internal syllables as well. The replacements of /r/ for /l/ were the most common. A few substitutions for /d/ were found too, most of them at internal syllable boundary. Some instances of these substitutions follow:

- /r/ for /l/ at word boundary: *eplical* “explicar/ explain”, *mujel* “mujer/ woman”, *mejol* “mejor/better”, *lugal* “lugar/ place (n.)”, *cañolal* “encañonar/to point (a gun)”, *exigil* “exigir/ demand (v.)”
- /r/ for /l/ at internal syllable boundary: *filma* “firma/ signature”, *balco* “barco/ ship”, *obselva* “observa/ he observes”
- /r/ for /d/ at word boundary: *pod* “por/ for”, *construíd* “construir/ build”
- /r/ for /d/ at internal syllable boundary: *podque* “porque/ because”, *abiedto* “abierto/ opened”, *pulidlo* “pulirlo/ improve it”, *hedmano* “hermano/ brother”, *Podtugá* “Portugal”

Table 5 presents the percentages of retention and loss of the flap in the informants’ idiolects.

**Table 5**  
**Percentages of Retention and Loss of the Flap at Word and Syllable Boundary in the Spanish of Fernando, Saúl, Roy y Rafa**

Informant	Retention of /r/	Loss of /r/
Fernando	76.99%	23.01%
Saúl	28.93%	71.07%
Roy	27.55%	72.45%
Rafa	6.90%	93.10%

According to the data presented in Table 5, the research participant who has a better command of the rhotic is Fernando. The rest of the informants tend to either elide or substitute this segment at word and internal syllable boundary; that is, they pidginize more than Fernando.

Segments appear to be particularly resistant to loss (elision or substitution) at certain phonological environments. /r/, for instance, was apt to fall or be substituted in final position, but it was highly stable in consonant clusters and between vowels. Nevertheless, as the percentage of loss increased syllable and word-finally, the likelihood of the /r/ to be lost in those resistant contexts almost always increased as well, as shown in Table 6. The phenomena discussed in the following paragraphs support the previous observation and the idea that phonological pidginization is reflected not only by the percentages of loss of a certain segment but also by the variety of environments in which the phoneme is substituted or omitted.

**Table 6**  
**Percentages of loss of /r/ at word and syllable boundary,**  
**in consonant clusters, and between vowels**

Informant	Loss of /r/ at word and syllable boundary	Loss of /r/ in consonant clusters	Loss of /r/ between vowels
Fernando	23.01%	4.95%	0%
Saúl	71.07%	10.64%	2.30%
Roy	72.45%	14.70%	5.22%
Rafa	93.10%	9.18%	40%

In the Spanish of Fernando, the flap was never elided in consonant clusters, and it was substituted by /l/ only once in the cluster /pr/. In Saúl's idiolect, /r/ was substituted by /l/ thrice and omitted twice in that context. As for Roy, in consonant clusters, he dropped the flap 33 times and substituted it for another segment twice. Finally, in Rafa's L2, the /r/ in consonant clusters was elided six times and substituted for the lateral twice.

In an intervocalic environment, Fernando never elided or substituted the /r/, while Saúl dropped it twice and substituted it four times (three times for the lateral and once for the trill). Roy omitted the flap thrice and substituted it for another phone 14 times: nine times for /l/, four times for /r/, and once for /n/. Rafa elided the intervocalic rhotic six times and substituted it for /l/ 20 times.

The following are some examples of the omissions and replacements of the rhotic in consonant clusters and between vowels.

- Elision of /r/ in consonant clusters: *gacias* "gracias/ thanks", *Topical* "Tropical (a brand)", *gandísima* "grandísima/ very big", *empesa* "empresa/ company", *cuatociento* "cuatrocientos/ four hundred"
- Substitution of /r/ in consonant clusters: *glacia* "gracias/ thanks", *plendé* "aprender/ learn", *otlo* "otro/ another one", *palabra* "palabra/ word", *libre* "libre/ free"

- Elision of /r/ between vowels: *necesaiamente* “necesariamente/ necessarily”, *queaon* “quedaron/ they remained”, *cambiaon* “cambiaron/ they changed”, *sinceamente* “sinceramente/ honestly”
- Substitution of /r/ between vowels: *Salapiquí* “Sarapiquí/Sarapiquí (a place in the north of Costa Rica)”, *dolales* “dolares/ dollars”, *Orriginá* “original/ original”, *Eurropa* “Europa/ Europe”, *generación* “generación/ generation”

In Fernando’s and Saúl’s Spanish, most of the substitutions of /r/ in consonant clusters, specifically in the cluster /tr/, were for the assibilated rhotic //r/. This phenomenon cannot be considered an indicator of pidginization, for the substitution at stake is actually a feature of the Costa Rican Spanish spoken in the Central Valley (Calvo & Portilla 1998, Chavarría 1951, Sánchez 1986, Umaña 1981, as cited in Vázquez 2006). Hence, one may regard the replacement as a linguistic correlate of assimilation. Conversely, the substitution of the flap for the lateral, which prevailed in the Spanish of Roy and Rafa, is clearly a sign of pidginization, for this phenomenon does not occur in Costa Rican Spanish, as it does in other varieties of this language such as the one spoken in Cuba (Figueroa 2008). The following are some of the words in which the flap was substituted by the assibilated rhotic: *maestría* “Master’s degree”, *entre* “between”, *ultramar* “ultramar/ overseas”, *patria* “native land”, *tres* “three”, *teatro* “theater”

Table 7 displays the percentages of retention of the segments that have been discussed to this point.

**Table 7**  
**Percentages of Retention of /s/, /d/, and /r/ in the**  
**Spanish of Fernando, Saúl, Roy y Rafa**

<b>Informant</b>	<b>Retention of /s/</b>	<b>Retention of /d/</b>	<b>Retention of /r/</b>
Fernando	78.69%	67.19%	76.99%
Saúl	59.11%	50.16%	28.30%
Roy	56.03%	17.26%	27.55%
Rafa	17.06%	20.53%	6.90%

Again, the percentages of retention of the flap and the phenomena discussed in this section support the idea that Fernando is the least pidginizing informant, while Rafa is the most pidginizing one. Roy and Saúl fall somewhere between Fernando and Rafa. They have attained a command of /s/ closer to that of Fernando, but their command of the rhotic phone is more like that of Rafa. Regarding /d/, Saúl’s command of the segment is high, and Roy’s is low.

### 3.4. Elision and Substitution of /l/

The lateral was subject to elisions, both at the end of words and at the end of internal syllables. Most of the omissions of /l/ occurred word-finally. Deletions

of the segment in syllable and word-initial position or in consonant clusters were rare. As for substitutions, very few of them were found. They occurred at internal syllable and word boundary. In these cases, the lateral was substituted for /s/, /d/ and /n/. Some examples of words in which the lateral was replaced or omitted follow.

- Elision of /l/ at the end of words: *totá* “total/ total”, *pañó* “Español/Spanish”, *nivé* “Nivel/ level”, *mi* “mil/one thousand”, *iguá* “igual/ the same”, *cace* “cárcel/ jail”
- Substitution of /l/ at word boundary: *Potugas/Potugad* “Portugal”, *min* “mil/ one thousand”
- Elision of /l/ at internal syllable boundary: *sata* “asalta/ he robs”, *ago* “algo/ something”, *tavez* “talvez/ perhaps”, *bosa* “bolsa/ bag”, *pesonamente* “personalmente/ personally”, *última* “última/ last”, *cutura* “cultura/ culture”
- Substitution of /l/ at internal syllable boundary: *tanvé* “talvez/ maybe”, *cuantiera* “cualquiera/ any”
- Elision of /l/ at the beginning of words: *os* “los/the”
- Elision of /l/ at the beginning of internal syllables: *soo* “solo/only”, *teevisión* “television/television”
- Substitution of /l/ at the beginning of internal syllables: *vocaburario* “vocabulario/ vocabulary”, *Ostraria* “Australia”, *coregio* “colegio/ high school”, *escuera* “escuela/ school”, *perigroso* “peligroso/ dangerous”, *poricia* “policía/ police officer”
- Elision of /l/ in consonant clusters: *paniao* “planeado/planned”, *habá* “hablar/speak”, *incusive* “inclusivo/ even”, *puebo* “pueblo/ people”

Table 8 presents the percentages of retention of the lateral and /s/, /d/, and /r/ in the informants’ Spanish.

**Table 8**  
**Percentages of Retention and Loss of the Lateral in the Informants’ Spanish**

Informant	Retention of /l/	Loss of /l/
Fernando	79.07%	20.93%
Saúl	65.63%	34.37%
Roy	19.66%	80.34%
Rafa	33.93%	66.07%

According to the information presented in Table 8, Fernando and Saúl are the informants who have a better command of the lateral, whereas Roy and Rafa are the ones whose Spanish exhibit a greater degree of phonological pidginization of this segment. Fernando’s better command of /l/ manifests itself (1) in a

higher percentage of segment retention in the contexts where the lateral was more susceptible to omissions and substitutions (at internal syllable and word boundary) and (2) in the absence of loss in other phonological environments such as the beginning of words and syllables and in consonant clusters. Omissions and substitutions of /l/ in these contexts were found in the L2 of Saúl and Rafa, who were both more pidginizing than Fernando.

An interesting phenomenon observed in the informants' idiolects was the stability of /l/ when it occurred at the end of the personal pronoun *él* "he", as compared to its susceptibility to elision when it happened at the end of the definite article *el* "the". Fernando, for instance, used the definite article 37 times and dropped the lateral 17 times. He used the personal pronoun 12 times and dropped the /l/ only once. Roy, the informant with lowest percentage of retention of /l/ used the article 26 times, and omitted the /l/ 22 times. This same informant used the personal pronoun 13 times and elided the lateral only twice. This greater stability of /l/ at the end of the personal pronoun might be related with the tonic nature of the pronoun and its more focal position. Both circumstances render the personal pronoun less likely to be reduced or phonologically simplified.

#### 4. Conclusions

The following is a list of the most salient deviant phonological features observed in the informants' Spanish and a summary of the most important findings connected with each nonstandard trait. The degree of phonological pidginization in the idiolect of the research participants is established at the end of this section.

##### 4.1. Elision of /s/

The omissions occurred at the end of words and at the end of internal syllables. The fricative was always more stable at the end of internal syllables, independently of its susceptibility to elision at word boundary. In word final position, the /s/ carrying the meaning of plurality was more likely to fall than the /s/ at the end of roots. A high percentage of elision of /s/ at word boundary did not entail an elevated proportion of omission at the end of internal syllables.

##### 4.2. Elision and Substitution of /d/

The omissions of /d/ occurred in the Spanish of the four research participants, while the substitutions were registered only in the idiolects of Roy and Rafa. The replacements of the phone were not as abundant as the omissions. /d/ was replaced by /l/, /n/, /r/, and /t/. Most of the elisions of /d/ took place when the segment was at word boundary and at the beginning of an internal syllable. Very

few omissions of /d/ were registered at the beginning of a word, at internal syllable boundary, in consonant clusters, and between a nasal or liquid and a vowel. The voiced stop was particularly resistant to omission in consonant clusters and between a nasal or a liquid and a vowel.

#### 4.3. Elision and Substitution of /r/

The omissions occurred more frequently than the replacements of the phone. In the Spanish of Fernando and Saúl, the flap was omitted most frequently at internal syllable boundary, whereas in the idiolects of Roy and Rafa most elisions took place word-finally.

The substitutions occurred at the end of words and internal syllables. Most of them happened at word boundary. /r/ was most frequently replaced by /l/. Most of the substitutions by /d/ took place at the end of internal syllables.

It was observed that an increase in the percentage of loss of /r/ in the contexts in which it is more susceptible to loss (at word and syllable boundary) correlates with an increase in the number of omissions and replacements in more resistant environments, i.e., in consonant cluster and between vowels.

The substitution of /r/ for /l/ in the cluster /tr/ can be regarded as the acquisition of one of the features of the Spanish spoken in Costa Rica's Central Valley.

#### 4.4. Elision and Substitution of /l/

/l/ was elided at the end of internal syllables and in word-final position. The omissions occurred most frequently at the end of words. Very few elisions were found in other environments. The /l/ at the end of definite article "el" was more apt to be dropped than that of the personal pronoun "él".

Substitutions were rare. They took place at internal syllable and word boundary. /l/ was substituted by /s/, /d/ and /n/.

#### 4.5. Degree of Pidginization

Table 9 displays the percentages of retention and loss of each segment that was found to be affected in the Spanish spoken by the research participants.

**Table 9**  
Percentages of segmental retention and loss in the Spanish of the informants

Informant	/s/		/d/		/r/		/l/	
	Retention	Loss	Retention	Loss	Retention	Loss	Retention	Loss
Fernando	78.69%	21.31%	67.19%	32.81%	76.99%	23.01%	79.07%	20.93%

Saúl	59.11%	40.89%	50.16%	49.94%	28.30%	71.70%	65.63%	34.37%
Roy	56.03%	43.97%	17.26%	82.74%	27.55%	72.45%	19.66%	80.34%
Rafa	17.06%	82.94%	20.53%	79.47%	6.90%	93.10%	33.93%	66.07%

According to the percentages displayed in Table 9, Fernando's Spanish exhibits the lowest degree of phonological pidginization, whereas Rafa's shows the highest degree of simplification. Saul's command of /s/, /d/, /l/, and especially /r/ is not as good as Fernando's, but it is better than Roy's. The informants can then be ordered from the least pidginizing one to the most pidginizing one as follows: Fernando-Saúl-Roy-Rafa.

### 3.6. Final Remarks

In the informants' Spanish, phonological pidginization manifests itself in the omission and substitution of consonant segments. The percentages of segmental loss and retention were established for each consonant that was found to be affected. This, in turn, allowed the researcher to rank the informants from the least pidginizing one to the most pidginizing one.

### Notes

- 1 For more detailed information about the informants, instruments, methods, and procedures of the study from which this article stems, see Angulo, Henry. (2011). *El español como segunda lengua de inmigrantes de origen chino en Costa Rica: Un análisis a partir del Modelo de aculturación*. Universidad de Costa Rica, San José, Costa Rica.
- 2 Figueroa (2008) found substitutions of /d/ for the lateral in the Spanish of his informant as well.
- 3 Figueroa (2008) found that most of the elisions occurred in these contexts, too.
- 4 /d/ is not part of the phonological system of Cantonese or Mandarin (Chan & Li 2000; Miao 2005).

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