

Transfer or Innateness in Interlanguage?

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I. Introduction

The concept of Interlanguage was first introduced in Selinker (1972). Over the years, there have been a lot of arguments concerning the theory of Interlanguage. One of the most longstanding seems to be transfer/innateness controversy (Powell 1998). In the transfer theory (e. g. Lado 1953), native language play an important or overall role in language acquisition, while language innateness theory (Dulay & Burt 1974) contends 'transfer is "unimportant" factor in forming interlanguage'. According to Nemser (1971: 116) the interlanguage is explained as: "learner speech at a given time is the patterned product of a linguistic system... distinct from NL (Native Language) and TL (Target Language) and internally structured." The problem is whether the interlanguage is affected either by language transfer from their NL or by Universal Grammar as suggested by Chomsky.

In this current study, we first go over a brief history of Interlanguage to review the status quo of the theory. In the later chapters some phonetic data is presented to examine the transfer/innateness controversy.

II. Interlanguage: Explicit and Implicit Knowledge

To be 'fluent' in a second language is not an easy task, to say the least, especially when it is learned in a situation where the second language is not used in an everyday situation. Knowing and being able to use the second language doesn't necessarily mean the second language (L2) learner uses it correctly or appropriately as native (L1) speaker would.

In the field of second language acquisition (SLA), its early research in the 1960's was used to address the application for language pedagogy (Ellis 1997). In learning a L2, the learner relies, one way or the other, on their L1. Different ways L1 affects SLA has been since looked into; one of the sub-field researches derived from SLA. One of such fields is interlanguage (IL). Forty two years have passed the term was coined. Here, we review its history and definition.

History

1. Definition of Interlanguage

The term interlanguage (IL) is known to be introduced by Larry Selinker (Selinker 1972). However, five years prior to that Corder rose the issue as part of learners' error. Corder regarded errors to be essential factors in constructing language rules unique to each learner with large influence of L1 but not exactly transfer of it. Such language rules are reconstructed continuously. In 1971, Nemser referred 'deviant learner language' but unlike Corder, he regarded the language to stay in the learners' system: fossilization. The term IL was then coined by Selinker. It is a systematic language of the L2 learners that falls between the first language (L1) and the TL; therefore, the prefix 'inter' and word root 'language.'

The basic definition has not changed, but there some modifications of IL. IL was initially thought to be a language system only those who start L2 learning after puberty have. However, children learning second language in immersion programs (i. e. Canadian children learning French in Canada) have shown linguistic system with some, but not entirely, transfer from their L1, producing IL (Tarone 2006). Another modification is the limit to acquiring the target language (TL) to the point it cannot be distinguished by the native speaker of the TL. Selinker viewed L2, namely adult learners, cannot accomplish acquiring the TL in that sense (1972). The basic understanding of the fossilization of IL is agreed; however, it is now argued among that "if the

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[L2 learners'] need is great enough, they will be able to continue learning the second language until their production/perception is indistinguishable from that of native speaker" (Tarone 2006). Not all language features are fossilized; although phonological system is more likely to fossilize than morphology, syntax and lexicon, it is not entirely impossible to acquire the TL - at least some of the language features.

2. SLA and Interlanguage

Because SLA is a broad term, its definition and phenomenon are perceived differently. Ellis confirmed the finding from each SLA study can be subject to different interpretation depending on the kinds of data used (1994). Like acquiring the L1, how L2 acquire the target language (TL) differs. Ellis claims that formal instruction (i. e. school setting) has direct effects on planned, or careful style, but not on unplanned or vernacular style (1994). Numerous factors affect learners' language, so the SLA is comprised of several sub-fields, one being IL.

Different studies have used different terms to explain the phenomenon of IL. *Explicit and implicit knowledge* is known to explain L2 learning procedure (Bialystok, 1978; Ellis, 1985). *Explicit knowledge* refers to items that the language learners both comprehend and also explain or report on what they know - consciously. On the other hand, *implicit knowledge* is more tacit and intuitive. The learners use what they have learned consciously; hence, when asked 'why' or 'how' they used the L2 the way they did, they are unlikely to explain. Ellis takes the weak interface position to explain how L2 features are converted into the learners' knowledge (Ellis, 1994). Through formal instructions, an L2 feature becomes explicit knowledge, although not in all cases does it become explicit first. It be taken into as explicit knowledge and then go through a filter where the feature is converted into a form different from the explicit knowledge; this becomes the language learners' IL. Essentially, it is this form of output that the L2 learners produce in vernacular style. IL doesn't only consist of acquired target language knowledge but also of numerous and various context or situations in which the language is used. Henceforth, both explicit and implicit knowledge play significant roles in the development of an implicit IL system.

IL is a system, yet not all variations are explainable. When L2 is converted into the learners' implicit knowledge, it does not necessarily mean their L2 usage will be consistent. Some L2 outputs are used intentionally or consciously, but some may occur unintentionally or unconsciously. Regardless, in majority of cases, IL variation is systematic. One of the contexts explains the systematicity of IL as a *linguistic context*, in which the language learners would use an L2 feature differently depending on a marked linguistic form (Ellis, 1994, 1997). Other explanations of variability are *situational context* and *stylistic continuum*. The former describes learner language varying depending on who they are talking to; whereas, the latter illustrates the setting, in addition to with whom the learners converse, accounting for variability (Beebe, 1980; Tarone 1983). Such IL variability evident at one point of language learning illustrates the learners' production of language based on what knowledge and experience are available to the learners.

The characteristics of IL are complicated and its structure or theoretical foundation has not been agreed upon by all researchers, yet it can be said that IL does exist in all L2 learners and that the L2 of each learner varies according to a number of factors (e. g. situation, task, interlocutor, etc). There are number of factors that affect L2 learner output and IL variability which in most cases is systematic and explainable and, therefore, can be predicted. In the following chapter, we examine some phonetic TL features that are from language transfer and some variation that may be due to innateness that all language learners have, whose system may be unique to individual learners.

III. Vowel system simplification

In this section a set of phonetic data is examined to explore to see if the pronunciation mistakes in the language learning process can be pertained either to transfer from learners' mother languages or to the innate nature of language learning as found in Chomsky.

In this section sound data from Japanese English learners are attested to clarify if the pronunciation mistakes by the learners can be attributed to language transfer or to the universality theory.

1. Japanese English Learners

The data is taken from the students in my phonetics classes in which students are required to pronounce a list of English words. The list is designed to let the students distinguish vowel and consonant phonemic differences of TL (Target Language: English) which in their native language are simply phonetic or allophonic differences, therefore normally unrecognized.

Following is the phonetic/phonemic correspondence of TL and NL (Native Language).

(1) English/Japanese phonemic correspondence of vowels

vowels	English	Corresponding Japanese
High-front tense	i	i
lax	ɪ	
Mid-front tense	eɪ	e *2
lax	ɛ	
high-back tense	u	u
lax	ʊ	
Mid-back tense	oʊ	o
lax	ɔ (ɑ) *1	
Open-front	æ	a *3
Mid-central	ʌ *4	
Open-back	ɒ	

* 1 In recent American English /ɔ/ is opened and merged to /ɒ/

* 2 Mid-front/mid-back tense vowels are typically diphthongized. Tense/lax differences are typically lost in students' pronunciation

* 3 these three American English vowel phonemes corresponds to one Japanese vowel /a/. Distinctions among these vowels are typically lost. /ɒ/ is mistaken to be pronounced as /o/, which might be affected by the orthography "o".

* 4 in this paper the symbol for mid-back unrounded /ʌ / is used to mean mid-central unrounded /ɜ/

In the transfer theory it is assumed that five vowel system of Japanese is transferred to the vowel system of TL. The results of my experiment is shown in (2).

As has been assumed only a limited number of informants has acquired the English tense/lax vowel distinctions. Following is the result of the survey.

(2) Results in percent

	i/ɪ	u/ʊ	eɪ/ɛ	oʊ/ɔ (ɒ)	æ /ʌ /ɒ
acceptable	0	7.5	37	1	5
unacceptable	92.5	85	62	72.5	75
unstable	7.5	7.5	—	15	20

As has been supposed only a very limited number of students had acceptable English vowel distinctions. They seemed to replace TL vowel distinctions with NL vowels, but there seem to be some variations in the result. The analyses of each substitutions are given below.

/i, ɪ/:

Tense/lax distinction is interpreted as length distinctions. It is of course well known that in English tense vowels are

typically longer than lax vowels. But the length is now not distinctive in English (though historically it was as the orthography implies). It is quite possible that the orthography might play an important role in the length interpretation. Among unacceptable mistakes, /ɪ/ > [e] replacement was observed. This replacement occurred after my instruction that /ɪ/ is not a “short” /i/ but the tongue position and tenseness are different. The students therefore knew the fact but could not adjust their tongue position to somewhere between /i/ and /e/. Furthermore, tenseness is not phonemic in Japanese.

/u,ʊ/

Here the percentage of acceptable pronunciations rises up to 7.5%. Although traditionally, high-back /u,ʊ/ were (are) both rounded, the lax vowel is now pronounced as unrounded. This might be, as in the case of laxing of /ɔ/ to [ɒ], to make the distinction clear and salient. And the tense/lax is changed into round/unrounded distinction. As a result the high back lax /ʊ/ is pronounced as /u/, Japanese high back lax, which is quite similar to /u/.

/eɪ,ɛ/

Mid-front tense vowel is typically diphthongized in Standard English (though in many dialects it is a tense long vowel), therefore for the learners it is rather easy to distinguish these two vowels. In current American English, however, mid-front lax /ɛ/ is lowered to merge low-front /æ/. Therefore, the vowel qualities of these two vowels are distinct. Here again the tense/lax distinction is lost. They typically use the same mid-front /e/ with the addition of high vowel /i/ (though not glide) to the tense vowel.

/ou,ɔ/

According to Labov et. al. (2005) /ɔ/ laxing started in the north eastern part of America. It is now spread throughout America. In my survey in Southern California (Enomoto 2009) more than 90% lost distinction between /ɔ/ and /ɒ/. In British English this process is not observed. Instead mid-back tense is centered to [əʊ]. These process is assumed to keep the phonemic distance of these two phonemes. Along with mid-front vowels the diphthongization occurred along this line. Thus the distinction between /ou/ and /ɔ/ is very subtle even for native speakers. This is obvious the main driving force of /ɔ/ laxing.

As in the case of mid-front vowels, students typically use Japanese phoneme, in this case mid-back /o/ for those two vowels. However, there seems to be a lot of mixing up with the distinction. Even after some instructions on /ɔ/ laxing, not much improvements are observed.

/æ,ʌ,ɒ/

Japanese have only one low vowel /a/. Therefore for the informants the distinctions among low-front /æ/, mid-central /ʌ/, low-back are simply allophonic differences. In the underspecification terms, Japanese low vowels are not specified for front-central-back distinctions. Among 75% unacceptable pronunciations, /ɔ/(ɒ) > /o/ replacement is frequently observed. /æ,ʌ,ɒ/ > [a,a,o] replacement is most typical for these low vowels.

Vowel substitutions by the informants can be schematized as follows:

(3) vowel substitution

vowels	E. vowels	Substitutes	comments
High-front tense	i	i	Tense/lax > length
lax	ɪ	ɪ > e	After instruction
Mid-front tense	eɪ	e	ε/e distinction lost > monophthong/diphthong
lax	ε	e	
high-back tense	u	u	Round tense > unrounded lax
lax	ʊ	u	Unrounded in current American
Mid-back tense	oʊ	o	o
lax	ɔ (ɑ)	o:	/ɔ/:s open to /ɒ/ in American E
Open-front	æ	a	æ, ʌ, ɒ distinctions are lost
Mid-central	ʌ	a	
Open-back	ɒ	a(o)	

As has been supposed English tense/lax distinction is replaced by five-vowel system of Japanese with length distinctions. It is, however, difficult to assume if the substitutions are rendered by transfer or by language innateness.

It might be a good idea to compare vowel changes with other types of language contact. We will take Chicano English and AAVE (African American Vernacular English of America). They are both ethnic varieties of American English and are formed not through language learning at schools but through everyday communications with native (sometimes non-native) speakers of English. Many of the transfer studies were based on the classroom situations with different native language backgrounds. By comparing different types of language contact, we could see the question from different angles.

2. Chicano English

Chicano English is a variety of English spoken by Hispanic people in America. It has many phonological features distinct from Standard English. Vowel differences are prominent features of Chicano English phonology. The vowel sounds of Chicano English resemble the vowel sounds of its substrate language, Spanish, although a few slight differences exist. "The Spanish vowel system does not distinguish between tense and lax peripheral vowels, nor does it employ distinctive sets of so-called long and short vowels" (Santa Ana 2004). Therefore, in Chicano English tense/lax distinction in standard American English is lost, resulting in much simpler vowels system. The five (or may be six) vowel system is also found in the recent learner of English who tenses all vowels (Penfield and Ornstein-Garcia 1985). The same is true with Japanese learners of English who change tense/lax distinction into length difference, as stated above. Chicano English speakers, however, tend to lax three tense vowels: [i], [e], and [u], particularly before the consonant [l]. Hence, words like "need," "mail," and "school" are pronounced like [nid], [mɛl], and [skɔl]. These features distinguish Chicano English pronunciation not only from recent English learners, but also from Standard English pronunciation. While similarities exist between Chicano English vowel sounds and "interference" English, the two forms of English are not identical to each other, and both remain distinct from Standard English.

Following is some characteristics of Chicano English vowels excerpted from Duchnowski (1999).

(4) Chicano English vowels

i . Realization of [a] for schwa, [ə] or stressed schwa, [ʌ]

Drugs > [drags], *just* > [dʒas] for "just"

- ii. Tensing of [ɛ] to [e], especially preceding nasals:
Change > [tʃendʒ]
- iii. Tensing of /ɪ/
This > [dhis]
- iv. /æ/ raising to /e/ (Santa Ana ibid.)
Can > /ken/
- v. Low back /ɒ/ fronting: /ɒ/ > /ɑ/ (Fought 2003)
Caught > [kat]
- vi. High back /u,ʊ/ fronting: /u, ʊ > /ʉ,i/ (Santa Ana ibid.)
Look > [lʉk] or [lik]

Above examples are schematized in (5).

(5) CE vowels

Vowel shift type	examples	comments
Central vowel lowering	/ʌ,ə/ > [a]	/ʌ/(ʌ/ɜ/) and /ə/ lower into /a/
Front mid-lax tensing	/ɛ/ > [e]	/ɛ/ and /e/ merge
Front high- lax tensing	/ɪ/ > [i]	/ɪ/ merge into high-tense /i/
/æ/ raising	/æ/ > [ɛ, e]	/æ/ merge into either /ɛ/ or /e/: found also in California white shift
/e/ laxing	/e/ > [ɛ]	-
/ɑ/ fronting to [a]	/ɑ/ > [a]	Central and low-back vowels are merged to /a/
High-back fronting (unrounding)	/u,ʊ/ > [ʉ,i]	-
/ɔ/ lowering	/ɔ/ > [ɒ]	This process is also observed in standard American pronunciation

Following is the comparison of Japanese and CE vowel transfer.

(6) Japanese/CE

Vowel shift type	Chicano	Japanese learners	comments
Central vowel lowering	/ʌ,ə/ > [a]	/ʌ,ə/ > [a]	/ʌ/(ʌ/ɜ/) and /ɜ/ lower into /a/
Front mid-lax tensing	/ɛ/ > [e]	/ɛ/ > [e]	/ɛ/ and /e/ merge
Front high- lax tensing	/ɪ/ > [i]	/ɪ/ > [i]	/ɪ/ merge into high-tense /i/
/æ/ raising	/æ/ > [ɛ, e]	/æ/ > [ɛ, e]	/æ/ merge into either /ɛ/ or /e/: found also in California white shift
/e/ laxing	/e/ > [ɛ]	*	-
/ɒ/ fronting to [a]	/ɒ/ > [a]	/ɒ/ > [a]	Central and low-back vowels are merged to /a/
High-back fronting	/u,ʊ/ > [ʉ,i]	*	-
/ɒ/ raising	*	/ɒ/ > [o]	-
/ɔ/ lowering	/ɔ/ > [ɒ]	*	-

(*) represents non-existent

Both Japanese and Spanish have similar five vowel systems except that Spanish has no length distinctions in vowels. Therefore tense/lax > long/short replacements are not found in CE, thus not discussed here. As obvious from (7) similar vowel simplification is observed.

/e/ laxing is not observed in Japanese, but /e/ and /ɛ/ are allophonic variants therefore unlike CE, /e/ laxing does occur but only allophonically therefore not constant. High-back fronting is also not observed in Japanese learners' data. It might be because high-central vowels are allophonic in standard Japanese and found dialectally.

/ɒ/ raising is not found in CE. This can be explained in terms of orthography. (for the effect of orthography in language learning, see Munro & Derwing (1995) The Roman letter "o" is interpreted as /o/ in Japan. While in CE acquisition is mainly through phonetic data.

In Japanese too similar type of vowel laxing is found in casual speech. /i/, /e/ /o/ are lowered to [ɪ, ɛ, ɒ] in the word final position.

3. African American Vernacular English

As has been discussed above, Japanese and Spanish have five-vowel systems, it is therefore a good idea to consider other types of ethnic dialects. Here we consider African American Vernacular English (henceforth AAVE). It is spoken by African Americans and has a long history therefore its substrate languages are now uncertain (presumably Niger-Congo languages of West Africa). In this sense, vowel shift in AAVE might provide different type of data. In AAVE, vowel mergers are observed like in CE. Some mergers are the same as CE, such as /æ/ tensing and tense/lax merger. Others seem to be AAVE specific. It might be possible to argue (cf. Penfield 1985) that the difference is explained in terms of the amount of "interference" from their substrate languages. CE has obvious interference from Spanish, but AAVE has longer history and the interference from its substrates has been weakened and the shifts and mergers could be explained in terms of universal characteristics of pidgin languages or innateness hypothesis.

Following is the types of vowel shift based on Bailey & Thomas (1998).

(7) AAVE-English vowels

Vowel shift type	examples	comments
High-lax tensing	/ɪ/ > [iə]	/ɪ/ tensing and /i/ laxing are opposite phenomena.
Front high-tense laxing	/i/ > [ɪ]	
Front high-mid lax merger	/ɛ, ɪ/ > [ɪ]	/ɛ/ merge into either high lax /ɪ/ or high tense /i/
/ɛ/ raising	/ɛ/ > [iɪ]	
/æ/ raising	/æ/ > [ɛ, e]	/æ/ merge into either /ɛ/ or /e/
/e/ laxing	/e/ > [ɛ]	
/ɒ/ fronting to [æ]	/ɒ/ > [æ]	This process is also observed in standard American pronunciation
/ɔ/ raising	/ɔ/ > [oʊ]	
/ɔ/ lowering	/ɔ/ > [ɒ]	This process is also observed in standard American pronunciation
Diphthong simplification	/oʊ/ > [o]	

As obvious from (7), there seem to be considerable confusions in the pronunciation of some vowel phonemes. /ɪ/ can be tensed to /i/, and /i/ can be laxed to /ɪ/. And also/e/is laxed to /ɛ/. For the back vowels /ɔ/ is raised to [oʊ] and also lowered to [ɒ]. From the data above it seems that tense/lax distinction is considerably reduced in AAVE.

Following table is the comparison of AAVE and Japanese data.

(8) AAVE/Japanese

AAVE	Japanese	comments
/ɪ/ > [iə]	/ɪ/ > [i]	epenthetic schwa in AAVE
/i/ > [ɪ]	/i/ > [ɪ]	/i/ laxing is allophonic in Japanese
/ɛ,ɪ/ > [ɪ]	*	
/æ/ > [ɛ, e]	/æ/ > [a]	opposite shift directions
/e/ > [ɛ]	/e/ > [ɛ]	laxing is allophonic in Japanese
/ɒ/ > [æ]	*	
/ɔ/ > [oʊ]	/ɔ/: /oʊ/ confusion	raising also found in Japanese
/ɔ/ > [ɒ]	*	
/oʊ/ > [o]	/oʊ/ > [o:]	diphthong lengthening

AAVE shows a considerable difference in vowel shifts from Japanese data. Confusion or mixture of Standard American vowels are observed rather than phoneme mergers. For example, both /i/ laxing and /ɪ/ tensing are observed. It might be explained in terms of compensation. To avoid homonymy when a phoneme shifts, other phoneme fill in the place to keep the phonemic distance.

For the front mid/low vowels different vowel shifts are observed in Japanese and AAVE. /æ/ raising to [e] or [ɛ] in AAVE is not found in Japanese, in which /æ/ typically move backward and centralized to [a].

Back vowels show different patterns. /ɒ/ > [æ] fronting is not observed in Japanese. /ɔ/ > [ɒ] lowering is also observed in General American known as “North American Vowel Shift” (Labov 2005). Labov and others contends that this triggers /ɒ/ fronting to [æ] as the process of “push chain”. Here AAVE seem to keep vowel phonemic system of the superstrate language, but the distinctions are somewhat unstable.

The overall vowel shifts (mergers, tensing, laxing, raising, lowering), however, implies the instability of English vowel system. English vowels underwent a series of vowel shifts, the Great Vowel Shift being one. The diphthongs in the English vowel chart also imply this instability. The mid-tense vowels /e/ and /o/ are diphthongized to /eɪ/ and /oʊ/ to keep the phonetic space with their lax counterparts. And for the back vowels /ɔ/ is lower to [ɒ] in America and /oʊ/ is centralized to [əʊ] in British English to keep the distinctions.

As For AAVE, if we employ the West African origin theory, the substrate languages would be mostly of Niger-Congo languages. Languages of West Africa have comparatively large number of vowels: 7 vowels (Kisi: Sierra Leone,) to 14 (Akan: Cote d’Ivoire). The reason why West African languages have large inventory of vowel phonemes is that many of them have tense/lax distinctions.

Gullah language, which is thought to be the closest to the plantation creole in America, shows striking similarities with Krio, which is an English based creole used as a lingua franca in Sierra Leone. However, they are comparatively different in that the former has 13 vowels but the latter has 7 vowels. Gullah’s large vowel inventory can be explained in terms of constant contact with General American (Weldon, 396). Krio on the other hand, has very limited or no contacts with Standard English (either British or American) and shifted to 7 vowel system which is close to cardinal vowels.

IV. Discussion

Primary/secondary system

Through the comparison of three types of language contact, some vowel shifts are common, others are language specific. As discussed above tense/lax difference can be viewed as primary/secondary vowel systems. Primary or periphery vowels locate outside the vowel chart. Secondary or non-periphery vowels are inside the vowel chart. Languages with large vowel inventory tend to have both primary and secondary vowels, while languages with comparatively small vowel inventories have

only primary vowels. According to Maddieson (2008), among 564 world languages, language with average vowels inventories (5–6 vowels) cover more than half (51%) of the languages, while languages with large inventories (7–14 vowels) cover 32% . Languages with small vowel inventories (2–4) are very limited in number (16%). From this view five-vowel system is the most unmarked, which is smaller than the cardinal vowels. However, Krio has 7 vowels which, in Maddieson's (ibid.) terms, can be categorized as "language with large vowel inventory". It could be argued that the large vowel inventory of Krio can be explained in terms of transfer from the speaker's base languages, which are presumably West African Niger-Congo languages. Both CE and Japanese show an obvious transfer from their substrates.

As for tense/lax vowels, all three types lost the distinction. Here the data above seem to support the universality theory because regardless of their substrates (with a possible exception of AAVE, which have a close and constant contact with Standard English), they all lost tense/lax distinctions in front/back high vowels. Even for AAVE, as shown above, tense/lax vowels are unstable. However, there are a lot of controversies over Tense/lax distinctions. Normally tense vowels are phonetically defined as having [+ATR] (Advanced Tongue Root). The traditional definition, that tense vowels are produced with more "muscular tension" than lax vowels, has not been confirmed by phonetic experiments. There are even scholars (Lass, 1–39) who contend that there is no phonetic correlations to the tense/lax distinctions. These views suggest the instability and markedness of the distinction.

We have compared data from three types of language contact. At this stage it is by no means easy to make a conclusion, but the data given can be discussed for either transfer theory or innateness theory. Given the fact that five-vowel system is the most unmarked type with no tense lax distinctions, it may be possible to view seemingly transfer data (those of CE and Japanese) as motivated by universal tendency to reduce vowel phonemes to five to six.

V. Concluding remark

Language transfer and innateness theories have been one of the longstanding questions of error analysis. We examined data not only from language learning but from other types of language contact, ethnic varieties of American English, which can be thought to have interlinguistic phonology. We discussed the data by both transfer and innateness theories. Much of the transfer derived from L1 background, yet some 'errors', from the point of NS, occur due to variables unique to each L2 learner. Such errors, in many cases, do not interfere communication. Hence, they are apt to become IL. In the current study, the phonetic replacements both in learning situations and creole type language varieties have similar tendencies such as tense/lax reduction and vowel mergers regardless of their substrate languages. However, there are some discrepancies among the numbers of vowels in the languages attested. Therefore it might be safe to suggest that although phonologies of substrate languages do transfer, but marked features tend to be eliminated or reduced universally. Nevertheless, this does not mean that the transfer or eliminations are fossilized for each learner's IL can be modified. This will have to be proved with a longitudinal study.

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