

Inheritance, contact, convergence

Pronominal allomorphy in the African English-lexifier Creoles

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This article provides a comparative analysis of the suppletive allomorphy of two personal pronouns in the five African English-lexifier Creoles (AECs) Krio (Sierra Leone), Pichi (Equatorial Guinea), Ghanaian Pidgin English, Nigerian Pidgin, and Cameroon Pidgin. The alternation of the 3SG object forms =à*m* (a clitic) and *ín* (a non-clitic) is conditioned by a tonal obligatory contour principle (OCP), a vowel height OCP, animacy, and focus in different constellations across the five AECs. In addition, an epenthetic /r/ is recruited in four of the AECs to ensure that the OCP is not breached. The analyses suggest that pronominal suppletion in the AECs has been fashioned by processes of change and differentiation typical of geographically extensive language families, such as migration from linguistic homelands, acquisition by non-founder populations, interlectal cross-diffusion, as well as contact and convergence with adstrate, substrate, and superstrate languages.

Keywords: West Africa, Creole, Pidgin English, Spanish, Yoruba, obligatory contour principle, suppletion, epenthesis, object pronoun, tone-conditioned allomorphy

1. Introduction

In this article, I provide a comparative description and analysis of the suppletive variation of 3SG object pronouns in five Afro-Caribbean English-lexifier Creoles (henceforth AECs) spoken in West Africa: Pichi (Equatorial Guinea), Krio (Sierra Leone), Cameroon Pidgin, Nigerian Pidgin English, and Ghanaian Pidgin English. Much attention is focused on tone-conditioned suppletive allomorphy (henceforth TCSA), a hitherto undescribed morphotonological phenomenon that determines the pronominal variation in Pichi. In addition, I address pronominal suppletion in

Krio, Cameroon Pidgin, Nigerian Pidgin English, and Ghanaian Pidgin English. In each of these five AECs, the suppletive variation is conditioned by (segmental or suprasegmental) phonological, pragmatic, or semantic factors. The analyses present a picture of great synchronic diversity for a group of languages with known diachronic links and a common ancestry. The results underline the importance of both genealogical inheritance from Early Krio, as well as areal adaptation and convergence with superstrates and adstrates. I conclude that pronominal variation in the five AECs has been shaped through typical social and linguistic mechanisms of language differentiation: the migration from linguistic homelands and the presence of founder populations, acquisition of, and shift to the Creole by large groups of non-founder populations, interlectal cross-diffusion, contact with African adstrate languages, and contact with a transplanted European lexifier-superstrate (English) or non-lexifier superstrate (Spanish in the unique case of Pichi).

At least two aspects make the analysis of pronominal variation in these five AECs worthwhile. Firstly, there are very few typologically oriented in-depth analyses of specific functional areas of the AECs from a comparative perspective, and existing studies principally cover Caribbean AECs (e.g. Winford 1993). Comparative work on the African AECs based on primary data is limited to a few works. Most work to-date is based on secondary data (e.g. Peter and Wolf 2007). Fine-grained typologically oriented analyses like the present one can provide important insights into the differentiation of both the African and the Caribbean English-lexifier Creoles. The present analysis points towards a strong genealogical signal from Krio in the five AECs, as well as areal influences from African and European languages spoken in their respective ecologies.

Secondly, the present investigation is of theoretical interest for debates on whether Creoles constitute a typological class onto itself (e.g. Bakker et al. 2017; Fon Sing 2017), or tend to share genealogical (e.g. Blasi, Michaelis, and Haspelmath 2017) and areal features (e.g. Muysken and Smith 2015; van Sluijs, van den Berg, and Muysken 2016; Yakpo 2017a). Much of the discussion in this respect is based on the macro-comparison of large amounts of fairly general features (e.g. Daval-Markussen and Bakker 2011; Daval-Markussen, Bøegh, and Bakker 2017), and across heterogeneous groups of languages classified as Creoles. In this study and previous ones (Yakpo 2017a, 2017b), I instead employ a micro-typological approach. Exclusively drawing on field data from Creoles, adstrates, substrates, the lexifier, and superstrates, I examine specific functional domains in a group of Creoles with known historical connections, the same lexifier, and substrates and adstrates with areal and genealogical linkages. A granular analysis under the looking-glass and within a space restricted in such a way reveals formal and functional distinctions hitherto undiscovered or thus far little understood. It is also

methodologically the most sensible way to engage with the question of Creole universals (see Michaelis 2017). The findings suggest that there is considerable variation and complexity in the grammar of pronominal allomorphy in the African English-lexifier Creoles. We still know too little about the fine details of grammar, (tonal) phonology, lectal variation, and the effects of contact with adstrates and superstrates in the AECs. Broad claims about Creole typology are therefore better preceded by in-depth, diligent, and comparative analyses of first-hand data. Findings, in turn, deserve to be formulated in a nuanced and prudent way, in order to avoid the impression of superficiality (*pace* Bickerton 1981; McWhorter 2005).

The analysis presented in this paper is based on two sets of corpora consisting of primary data. The Pichi corpus consists of 46,060 words of conversations, narratives, procedural texts, elicitations, and grammaticality judgments collected during three field trips to Bioko between 2003 and 2007. Remaining gaps in the data were filled ex-post by consultation with research associates and colleagues in West Africa and elsewhere. The analysis of tone was done from connected speech and words spoken in isolation using the Praat 5.0 software. The entire corpus was transcribed by the author, cross-checked by native speaker collaborators, and interlinearised in SIL Shoebox. Recordings were conducted with altogether 17 language consultants. The video clips of the Language and Cognition Group of the Max-Planck Institute for Psycholinguistics in Nijmegen provided the stimuli for many of the elicited texts in the corpus. A detailed grammatical description, a selection of texts, and a basic vocabulary of Pichi are available online via free open access with Language Science Press (Yakpo 2019a). The control data on Nigerian, Cameroonian, Ghanaian Pidgin and Krio was gathered during several stays in West Africa between 2003 and 2016. The corpus with control data totals approximately 70,000 words. All unreferenced examples stem from field data.

The remainder of this article is organised in the following way: in Section 2, I first provide an overview of the linguistic ecologies the AECs are spoken in. I then provide a detailed account of pronominal variation in Pichi, covering in particular the typologically note-worthy case of tone-conditioned suppletive allomorphy only found in Pichi (Section 3), as well as epenthesis (Section 4), an aspect of pronominal variation equally relevant to the other four AECs. In Section 5, I provide a comparative view of pronominal alternation in the five AECs, pointing out unique features in each variety. Section 6 assesses the role of language contact in the differentiation of suppletive allomorphy of 3SG object pronouns in the West African English-lexifier Creoles, and Section 7 concludes this article.

2. The linguistic ecologies of the African English-lexifier Creoles

I now provide a brief background on the five AECs and their respective linguistic ecologies (see Yakpo 2016 for a treatment of sociolinguistic characteristics of the five languages). Cameroon Pidgin (henceforth CamP), Nigerian Pidgin English (henceforth NigP), Ghanaian Pidgin English (henceforth GhaP), Krio (spoken in Sierra Leone), and Pichi (spoken in Equatorial Guinea) are closely related languages of the African branch of the AECs. The five African AECs are transmitted and learned in various ways within the family and serve as means of communication and identification to linguistic communities. I therefore dispense with the term *pidgin* with its socio-structural connotations and use *Creole* alone, in spite of the fact that their glossonyms contain the word *Pidgin*.

With an estimated 100 million first and second languages users, the AECs spoken in Africa constitute one of the largest lectal continua of the world (Yakpo 2016: 22–23). The African AECs have, however, so far only received a fraction of the scholarly attention that Caribbean AECs have enjoyed.

A comparison of the phonology, grammar, and lexicon of the African AECs reveals striking similarities. Linguistic and historical evidence suggests that the diffusion of the Krio language from Freetown, the capital of Sierra Leone, with returning ex-enslaved Africans and Krio missionaries, teachers, and merchants along the West coast of Africa in the 19th century ushered in the formation of Pichi, Nigerian Pidgin, and Cameroon Pidgin (Huber and Görlach 1996; Huber 1999: 128–129; Baker and Huber 2001). Ghanaian Pidgin English is the only variety not to have primarily emerged through migration from a linguistic homeland. It is very likely that an early Krio-influenced English-lexifier contact language was brought to Ghana from Nigeria in the course of colonial labour migrations in the first decades of the 20th century, hence later than to other West African countries, and not by speakers of direct Sierra Leonean provenance (Huber 1999: 88–89). The evidence that there is a high degree of common ancestry between the African and Caribbean AECs is equally compelling, although many details remain unclear and the direction of diffusion across the Atlantic has been the subject of intense debate (see Hancock 1986, 1987 versus Huber 1999, 2000; Smith 1987, 2015).

The five AECs are spoken in different ecologies and have undergone different stratal-areal influences from their respective contact strata.¹ There are nonetheless

1. Following practice in historical and comparative linguistics (e.g. Witzel 1999), I use the term *substrate* for (African) languages that provided features to the Creoles in the context of language shift, as it occurred in the development of the Caribbean Creoles and some (insular) African Creoles. (African) adstrates provide features in a situation of long-term language maintenance and general societal multilingualism (see Lüpke and Chambers 2010; François 2012), as is the case

some commonalities that are relevant for the discussion. CamP, NigP, GhaP, and Krio are spoken in former British colonies, feature English as a lexifier-superstrate, and have therefore undergone varying degrees of convergence with their respective national Standard English varieties (see Sala and Ngefac 2006 for CamP; Yakpo 2017a for other African AECs). Pichi is the only African AEC with a non-lexifier superstrate, namely Spanish. Although Pichi has also borrowed considerably from its (non-lexifier) superstrate (Yakpo 2018), the absence of direct influence from, and convergence with English has allowed Pichi to develop (or retain) linguistic traits distinct from the other AECs (see Yakpo 2013a for details).

Given the geographic spread of the five AECs, there is a great diversity in African adstrate languages. Languages of the Sawabantu subgrouping of Bantu (particularly Mokpe and Duala) have served as the principal adstrates of CamP since its beginnings in the 19th century. Today, Grassfields Bantu languages spoken in and around Bamenda, the largest urban centre in “Anglophone” Cameroon, are also spoken alongside CamP. All these adstrates feature noun class systems, a circumstance that is important for the 3SG alternation in CamP. GhaP is today spoken alongside the major southern Ghanaian adstrates Twi and Fante (both Akan), and Ga.

NigP is principally spoken in the southern half of Nigeria. It is particularly entrenched in the Niger Delta federal states, in Lagos, and in most large urban centres of the south. NigP therefore has a diverse range of Benue-Congo (Yoruba and Igbo varieties) and Ijoid adstrates (Faraclas 2013). Krio is the language of the Krio people of Freetown (Sierra Leone), whose ethnogenesis occurred in the 19th century. In contrast with the other AECs, Krio has therefore served as a principle language of socialisation to a specific ethnolinguistic group for at least two centuries (Finney 2013). Besides that, Krio has served as a lingua franca to Sierra Leoneans of diverse linguistic backgrounds for probably just as long. The adstratal situation is complex. We find the Atlantic-Congo languages Temne (Mel) and Limba (Limba), as well Mende (Mande) being the most significant contemporary adstrates indigenous to Sierra Leone. But most importantly, Early Krio underwent significant substratal influence from Yoruba (Bradshaw 1966; Hancock 1971; Fyle 1998; for the historical background, see Wyse 1989).

in the African AECs. The substrates and adstrates are partly coterminous for the African AECs. They are today spoken in areas that speakers of African substrate languages came from during the formative period of the AECs (e.g. Yoruba as a substrate of Krio **and** adstrate of Nigerian Pidgin). *Superstrate* stands for the socially superordinate European colonial language spoken in the same ecology with the Creole, and *lexifier* for the European language that provided the bulk of the lexicon of the Creole (in this case only English). Superstrate and lexifier are not always coterminous, e.g. the Creole Pichi has English as the lexifier and Spanish as its superstrate (see Yakpo 2017b).

Bube, a Narrow Bantu language indigenous to Bioko, has served as the principal adstrate to Pichi since the 19th century. Bube has contributed phonological features and some lexical items to Pichi (Yakpo 2013a: 287–290). Pichi also shows traces of the lexical influence that Early Krio underwent from Yoruba (Yakpo 2019a). I will argue that the Yoruba substrate of Early Krio may have had an influence on Pichi 3SG pronominal variation via Krio.

In spite of such diversity, the principal adstrates and substrates of the five AECs all belong to the Niger-Congo phylum and share numerous areal-genetic traits that have been documented in the literature. For the present purpose, it is relevant that all adstrates feature lexical and grammatical tone systems. The African AECs also form a cohesive group with respect to their prosodic systems. Krio (e.g. Berry 1970; Hancock 1971; Nylander 1984; Finney 2004), Cameroon Pidgin (e.g. Nkengasong 2016), Nigerian Pidgin (Faraclas 1996), Ghanaian Pidgin English (Huber 1999), and Pichi have been analysed as languages that make use of lexical and grammatical tone (for a detailed acoustic and phonological analysis of the Pichi prosodic system, see Yakpo 2019: 37–73). In fact, the areal spread of tone extends to the European superstrates. A crucial indicator of the nativisation (Schneider 2003, 2007) of the transplanted European colonial languages of West Africa, English, Spanish, and French, is that they feature lexical tone systems. This has been argued for Nigerian English (Gussenhoven and Udofot 2010) and the standard English varieties spoken in Gambia, Sierra Leone, and Ghana (Criper 1971; Criper-Friedman 1990), as well as Equatoguinean Spanish (Yakpo and Bordial Steien 2017). This is important for the argument made for a tone-conditioning of suppletive allomorphy in Pichi. Apart from the Krio heritage common to all AECs, there have been, and still are, influences of NigP and CamP on Pichi (Yakpo 2013a), and cross-influences between NigP and CamP, and NigP and GhaP, which are also of relevance for the ensuing discussion.

I now turn to 3SG pronominal suppletion in Pichi, which features the most complex facts and is particularly instructive with respect to the various factors that have shaped 3SG object variation in the five AECs.

3. Tone-conditioned suppletive allomorphy in Pichi

Pichi features two pronominal variants that both instantiate (direct and indirect) object case. The pronominal variants are the gender-neutral dependent object pronoun *=àm* ‘3SG.OBJ’ and the gender-neutral independent pronoun *ín* ‘3SG.INDP’.²

2. Both pronouns may undergo nasal place assimilation. In pre-pausal and word-final position, the pronoun *=àm* may be realised as [àn~àm~à] (Yakpo 2019: 25–26). Here, I opt to transcribe 3SG.OBJ as *=àm* for better comparability with other African AECs, where it has been transcribed

The former is a clitic and the latter a phonologically and syntactically independent form. Consider Examples (1)–(3) involving the two variants.³

- (1) *è gò mǎrèd=àm.*
 3SG.SBJ POT marry=3SG.OBJ
 ‘S/he’ll marry him/her.’
- (2) *à fít ték dì wǎtá à trówé=àm.*
 1SG.SBJ can take DEF water 1SG.SBJ throw=3SG.OBJ
 ‘I can take the water (and) pour it away.’
- (3) *yù fíbà ín bókù.*
 2SG resemble 3SG.INDP a.lot
 ‘You resemble him/her a lot.’

The following uses of the allomorphs *=àm* and *ín* are ungrammatical in Pichi (Examples (4)–(6)):

- (4) **è gò mǎrèd ín.*
 3SG.SBJ POT marry 3SG.INDP
 Intended: ‘She will marry him.’
- (5) **è dón trówé ín.*
 3SG.SBJ PRF throw 3SG.INDP
 Intended: ‘She has thrown it away.’
- (6) **yù fíbà=àm bókù.*
 2SG resemble=3SG.OBJ a.lot
 Intended: ‘You resemble him a lot.’

I claim that the alternation of the two object pronouns in Examples (1)–(3) is an instance of tone-conditioned suppletive allomorphy (henceforth TCSA), i.e. the suppletion is conditioned by a tonal feature. I suggest that TCSA serves to avoid an inadmissible sequence of identical tones (*LL) across the clitic boundary and is

as *=àm*. In other works, I transcribe 3SG.OBJ as *=àn* due to its wider distribution. In a similar way, the pronoun *ín* ‘3SG.INDP’ may be realised as [ín~ím~í].

3. For the transcription of Pichi, I employ an orthography based on Krio (see Coomber 1992). The grapheme <ɛ> renders the open-mid front vowel [ɛ], <ɔ> renders the open-mid back vowel [ɔ], and <y> stands for the voiced palatal approximant [j]. The grapheme <r> has diverse realisations, e.g. a velar [ɣ] or uvular [ʀ] fricative in Krio and Pichi, and an alveolar tap [ɾ] in many varieties of Nigerian Pidgin. Other graphemes approximately represent the corresponding IPA sounds. H-toned syllables bear an acute accent, e.g. *wét* ‘wait’, and L-toned syllables a grave accent e.g. *wèt* ‘with’. Spanish words are written following Spanish orthographic conventions. The other AECs do not have officially recognised orthographies. For comparability, I transcribe NigP, CamP, and GhaP following Krio conventions.

therefore a manifestation of the Obligatory Contour Principle (OCP) (Leben 1973). The OCP proposes the existence of a universal tendency to avoid adjacent identical tones and other identical features or segments. The plausibility of the OCP has been shown by numerous studies in tonal phonology (for an overview, see Myers 1997; Leben 1999), and has received support from articulatory and perceptual phonetics (see Boersma 1998).

In Pichi, the OCP is subject to an “adjacency requirement” (Suzuki 1998), in this case a “sequential prohibition” (Ajíbóyè and Pulleyblank 2018). This means that *LL is banned iff the tone-bearing segments are string-adjacent, hence * $\grave{V}\grave{V} > \acute{V}\grave{V}$, $\grave{V}C\grave{V}$, see Examples (6), (2), (1) respectively. I will henceforth refer to the constraint that string-adjacent tone-bearing segments bear polar tone as OCP_{Tone} . Allomorph distribution according to the phonological class of the host may be summarised as shown in Table 1.

Table 1. Phonological conditioning of allomorphy

Host class	Allomorph used	Example
C/ _#	=àm	<i>màrèd=àm</i>
́/ _#	=àm	<i>tròwé=àm</i>
̀/ _#	ín	<i>fìbà ín</i>

All African AECs have seven-vowel systems featuring the phonemes /i, e, ε, a, ɔ, o, u/ (Faraclas 2013; Finney 2013; Huber 2013; Schröder 2013; Yakpo 2013b). There are no phonemic long vowels in the AECs. The string-adjacent OCP_{Tone} is parasitic on the absence of phonemic long vowels in Pichi. String-adjacent vowels carrying the same tone are therefore separated by a word boundary (e.g. *tùmàrà à gò gò* ‘tomorrow I’ll go’). String-adjacent vowels within the same prosodic word are heterosyllabic and invariably bear polar tones (e.g. *bì.ó* /LH/ ‘behold’, *klí.à* /HL/ ‘clear’).

The vowel hiatus across the clitic boundary can also involve identical vowels. As long as the immediately adjacent tones are polar /HL/, the enclisis of =àm is licit. This is the case in (7), involving the verb *nyàngá* ‘be cocky’, which features a final H-toned /á/. It is relevant for the later discussion that Pichi allomorphy is not conditioned by vowel height since (2) involves a high vowel, while (7) features a low vowel.

- (7) *yù dè nyàngá=àm.*
 2SG IPFV be.cocky=3SG.OBJ
 ‘You’re being cocky towards her.’

I now turn to the class of words that features the allomorph *ín* as an object pronoun. In functions other than conditioned objecthood, the pronoun *ín* serves as a prosodically independent, non-clitic pronoun in all AECs. Like other independent personal pronouns, *ín* may be focused, topicalised, clefted, relativised, conjoined, and modified by postposed pragmatic elements. In Pichi, *ín* may reference a focused subject *in situ*, as in (8), but a pronominal object may not be focused *in situ*. Instead, objects need to be fronted in a cleft construction involving the focus particle *nà* with *ín* under its scope as in (9).

- (8) *ín kán ték=àm.*
 3SG.INDP PFV take=3SG.OBJ
 ‘He took it.’
- (9) *nà ín è kán ték.*
 FOC 3SG.INDP 3SG.SBJ PFV take
 ‘He took it.’

In Pichi, the class of words that take *ín* as an object pronoun consists of (a) Pichi verbs with a final L-toned and codaless syllable, e.g. *fìbà* ‘resemble’ in (3) above. It also includes (b) verbs of Spanish origin inserted into Pichi clauses. Spanish-derived verbs are always inserted into Pichi clauses in an invariant Spanish 3SG present tense form, irrespective of their tense-aspect reading and person reference. Examples follow in (10) and (11) respectively with the verbs *fírmà* ‘sign’ (< Span. *firma* ‘sign:3SG.PRS’) and *súbè* ‘go/bring up’ (< Span. *sube* ‘go/bring up:3SG.PRS’).

- (10) *dèn nó fírmà ín yét.*
 3PL NEG sign 3SG.INDP yet
 ‘They haven’t signed it yet.’
- (11) *dán mán gò súbè ín.*
 that man POT bring.up 3SG.INDP
 ‘That man will bring it [the suitcase] up.’

Equatoguinean Spanish (EGS) has been analysed as a lexical tone language (Yakpo and Bordial Steien 2017; also Lipski 2015). It is therefore prosodically quite unlike its progenitor Standard European Spanish (SES), which employs lexical stress (see Hualde and Prieto 2015 for an overview of the system). The opposition between stressed and unstressed syllables in SES has been converted into a systematic pitch contrast between H and L tone in EGS. Table 2 lists the correspondences between SES and EGS 3SG verb forms.

Table 2. Stress-to-tone conversion in inserted EGS verbs

Verb inflection class	SES infinitive	SES 3SG PRS stress pattern	EGS 3SG PRS and Pichi invariant form tone pattern	EGS 3SG PRS and Pichi invariant form tone notation	Gloss
-ar	<i>fɪr'm'ar</i>	<i>'fɪr.ma</i>	<i>fɪr.mà</i>	H.L	'sign'
-er	<i>de'vol'ver</i>	<i>de.'vuel.ve</i>	<i>dè.vuél.vè</i>	L.H.L	'give back'
-ir	<i>su'bir</i>	<i>'su.be</i>	<i>sú.bè</i>	H.L	'go up'

Hence the unstressed final syllable of inserted SES verbs inflected for 3SG present tense consistently corresponds to a word-final L tone in EGS inflected verbs and EGS invariant verbs inserted into Pichi clauses. Inserted EGS verbs therefore also have the TCSA conditioning feature of an L tone over a codaless final syllable.

An important afterthought to the facts presented above follows. From the perspective of English, a route to be explored to explain the alternation between *=àm* and *ín* is weakening rather than suppletion. Indeed, the variant *=àm* is very likely to have been diachronically derived from the English weakened clitic object pronoun */=əm/*, while the variant *ín* goes back to the object/independent pronoun *him* */'hɪm/*. The English variants are not suppletive, but phonological variants. English is a stress-timed language and hence only the full, stressable form *him* is focalised, topicalised, clefted, relativised, modified, and conjoined. In the AECs, *=àm* and *ín* have, however, grammaticalised into different functions. They may therefore not substitute for each other at all in Pichi, as in (4) and (5) above.

Another argument for suppletion in the AECs is the fixed, lexically assigned nature of the tone of *=àm* and *ín*. The tonal specification of the two pronouns cannot be altered by pragmatic uses of pitch, e.g. for contrastive focus, as is common in intonation-only languages like Spanish and English. The change of L to H over *=àm* in (12), for example, renders a non-existent form **=ám*. When H-toned *ín* '3SG.INDP' is produced with an L tone, we get a functionally different form *ín* '3SG.POSS', making (13) ungrammatical as well.

- (12) *è gò mǎrèd=*ám.*
 3SG.SBJ POT marry=*3SG.OBJ
 Intended: 'S/he'll marry **him/her**.'

- (13) *yù fíbà *ín bǝkú*
 2SG resemble 3SG.POSS a.lot
 Intended: 'You resemble him/her a lot.'

I should point out for clarity that all African AECs feature the L-toned 3SG adnominal possessive *ín*, not to be mistaken with the H-toned independent pronoun

ín (e.g. for Ghanaian Pidgin English, Huber 1999: 199). The two forms constitute segmentally identical tonal minimal pairs. Additional layers of complexity in the rules governing the realisation of the allomorphs *=àm* and *ín* are addressed in the following section.

4. Tone-conditioned suppletive allomorphy and epenthesis in Pichi

Pichi has another mechanism next to TCSA of ensuring that the requirement of a polar /HL/ tone sequence over string-adjacent vowels is not breached. A buffer consonant /r/ can be inserted at the clitic boundary. Epenthesis forestalls the cross-morphemic vowel hiatus and makes the use of the allomorph *ín* unnecessary. Compare (14) below with Example (3) in Section 3.

- (14) *yù fíbà[r]=àm bòkú.*
 2SG resemble=3SG.OBJ a.lot
 ‘You resemble him a lot.’

Once the epenthetic segment is present, there is no phonotactic difference with a word in which the final consonant forms an integral part of the root like *màrèd* ‘marry’ in (1). Another example featuring epenthesis follows, involving the general associative preposition *fɔ̃* ‘PREP’. In (15), we find /r/ epenthesis, in (16), TCSA:

- (15) *è tót=àm fɔ̃[r]=àm.*
 3SG.SBJ carry=3SG.OBJ PREP=3SG.OBJ
 ‘He carried it for her.’
- (16) *dán tín dé fɔ̃ ín.*
 that thing COP PREP 3SG.INDP
 ‘That thing is hers.’

The choice of /r/ as the epenthetic segment in Pichi is a carry-over from its ancestor Krio, and ultimately from the linking and intrusive /r/ in the lexifier English (see e.g. Orgun 2001 for English). I will present evidence in Section 5 that /r/ epenthesis is conditioned by an OCP_{Height} in Krio, entailing a requirement for segmental dissimilation. In Pichi, however, the distribution of the epenthetic /r/ is exclusively conditioned by OCP_{Tone} , hence requiring supra-segmental dissimilation across the clitic boundary.

Three aspects are noteworthy with respect to /r/ epenthesis in Pichi. Firstly, /r/ insertion is exceedingly rare. In the Pichi corpus, there are but eight instances of /r/ epenthesis in natural discourse, involving altogether six lexemes. These are *kɔ̃à[r]=àm* ‘cover it’, *klíà[r]=àm* ‘clear it’, *fíà[r]=àm* ‘fear him/her’, *fíbà[r]=àm*

‘resemble him/her, *dróngò[r]=àm* ‘get him/her drunk’, *fò[r]=àm* ‘for him/her’. By contrast, the corpus contains hundreds of syntagmas involving the suppletive allomorph *ín*. I could therefore only uncover the distribution of the epenthetic /r/ and its role in TCSA by means of elicitation.

Secondly, elicitation revealed that the availability of /r/ epenthesis is subject to considerable variation. For some speakers, the use of epenthesis with particular verbs is unacceptable, i.e. **fálà[r]=àm* ‘follow him/her’, for others it is acceptable. All speakers, however, accepted TCSA with all verbs and prepositions, whether belonging to the native Pichi or the non-native Spanish lexical layer.

The third aspect of interest is that /r/ epenthesis is ungrammatical with Spanish derived verbs, see (17). Epenthesis is limited to the native layer of the Pichi vocabulary, thus excluding inserted Spanish verbs from the application of /r/ epenthesis, and limiting them to TCSA alone; compare (10).

- (17) **yù géfò fírmà[r]=àm.*
 2SG have.to sign=3SG.OBJ
 Intended: ‘You have to sign it.’

We now have the full picture of the conditioning factors of pronominal variation in Pichi. The following flowchart (Figure 1) schematically represents and summarises the distribution of the allomorphs *=àm* and *ín* in Pichi. Each instance of distribution is cross-referenced with an example contained in this article.

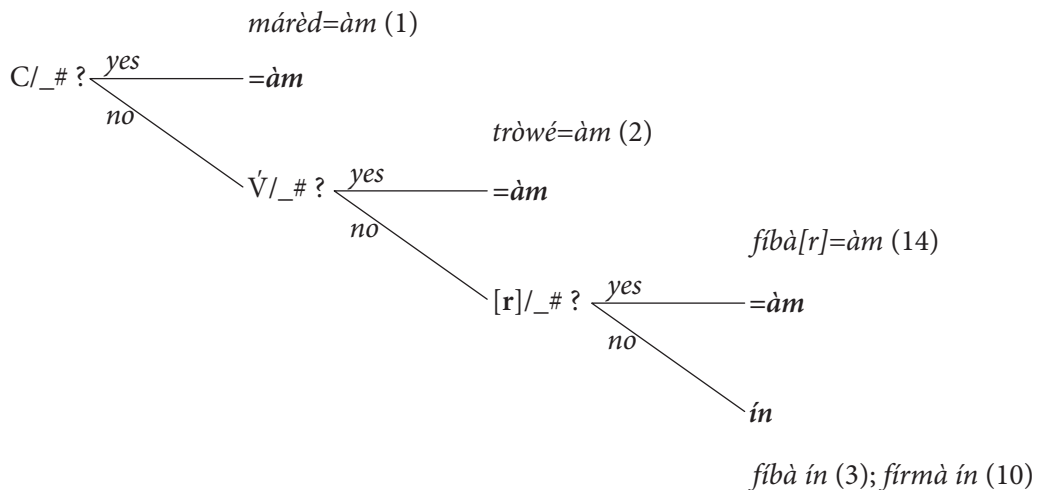


Figure 1. Flowchart of allomorph distribution in Pichi

5. Pronominal suppletion in Krio, GhaP, NigP, and CamP

The alternation between *=àm* and *ín* is conditioned by other factors than TCSA in Krio, GhaP, NigP, and CamP. The following survey of pronominal alternation in the West African AECs nevertheless shows various areas of overlap. One commonality between all five languages is, of course, the suppletive variation itself, as well as the formal identity of the variants *=àm* and *ín*. Another commonality shared by all AECs but GhaP is the existence of /r/ epenthesis. The languages however diverge considerably among each other with respect to the factors that condition the suppletive variation of the two pronominal alternants.

The alternation of the 3SG object form in the African AECs may be divided into five types distributed across the three domains of phonology, pragmatics, and semantics, see Table 3. The variants are listed in the rightmost column. I discuss the nature of Types 2 to 4 below.

Table 3. Alternation of 3SG object pronouns in African AECs

Language	Type	Conditioning domain	Conditioning factor	Variants
Pichi	1a	Phonological	OCP _{Tone}	<i>àm</i> ~ <i>ín</i>
	1b	Phonological	OCP _{Tone}	<i>àm</i> ~ [r] <i>àm</i>
Krio	2	Phonological	OCP _{Height}	<i>àm</i> ~ [r] <i>àm</i>
	3	Pragmatic	Focus	<i>àm</i> ~ <i>ín</i>
Ghanaian Pidgin	3	Pragmatic	Focus	<i>àm</i> ~ <i>ín</i>
Nigerian Pidgin	2	Phonological	OCP _{Height}	<i>àm</i> ~ [r] <i>àm</i>
Cameroon Pidgin	2	Phonological	OCP _{Height}	<i>àm</i> ~ [r] <i>àm</i>
	4	Semantic	Animacy	<i>àm</i> ~ <i>yí</i>

In Pichi, a single phonological constraint, namely OCP_{Tone}, conditions the variation between two suppletive (Type 1a in Table 3) and two phonological allomorphs (Type 1b). By contrast, Krio features two unrelated types of pronominal alternation. Type 2 involves the alternation between /àm/ and /rà/ (with [r] epenthesis). It is phonologically determined and conditioned by OCP_{Height}. Type 3 involves a pragmatically conditioned alternation that I turn to further below. There is no evidence for tonal conditioning of Type 2 in Krio. The tonal specification of the word-final vowel in codaless hosts has no bearing on the distribution of the variants /àm/ and /rà/.

Like all five AECs (see Section 2), Krio has a seven vowel system featuring the phonemes /i, e, ɛ, a, ɔ, o, u/ (Fyle and Jones 1980: xix). The epenthetic /r/ is inserted when a host with a wordfinal [–high] vowel meets the [–high] nucleus of the clitic pronoun *=àm*. The rule is, however, only at its strictest with hosts featuring the [+high] vowels /i/, /u/ and /e/, which never trigger /r/ epenthesis (e.g. *búli*(*[r])=*àm* ‘bully him/her’, *bàtú*(*[r])=*àm* ‘praise him/her’, *plé*(*[r])=*àm* ‘play it’). The rule is

not strict with all [–high] hosts including the mid-vowel /o/, and the preferences are lexical. Hence, we find variation, indicated by ([r]), with *tò([r])=àm* ‘to him/her’, but never *nó(*[r])=àm* ‘know him/her’.

Further, the likelihood is high that speakers apply /r/ epenthesis in hosts with a final [–high] /ɔ/ and /a/, and in particular, with hosts whose English cognates have a wordfinal /r/, i.e. *fíà* ‘fear’, *kóbà* ‘cover’, *fɔ̃* ‘PREP’ (<for), *bétè* ‘improve’ (<better), and *fíbà* ‘resemble’ (<favour). The data nevertheless features /r/-less variants like *fíbà=àm*. The epenthetic segment is also not usually found with non-English-derived Krio words, e.g. *nyàngá=àm* ‘dress him/her nicely’, *jànjá=àm* ‘discard it as worthless’. There are therefore quite a few idiosyncrasies in the distribution of epenthesis, which is significant for the discussion of contact-induced change in Pichi in 6.

Next to phonological conditioning by vowel height featuring the allophonic variants /àm/ and /rà̀m/, Krio has a pragmatically conditioned alternation between the suppletive variants =àm and *ín*, listed under Type 3 in Table 3 above. The variant *ín* can be used in the object position to signal *in-situ* contrastive focus. In the short dialogue in (18) (provided by Ian Hancock, pers. comm.), the 3SG independent pronoun *ín* in (c) expresses contrastive focus of the antecedent *Gladys*, referred to by the focus-neutral 3SG.OBJ pronoun =àm in (a).

- (18) a. SP1: *Mérì fíbà Gládis, ì fíbà[r]=àm bád.*
 Mary resemble Gladys 3SG.SBJ resemble-3SG.OBJ EMP
 ‘Mary resembles Gladys, she really resembles her.’ (Krio)
- b. SP2: *à nɔ́ grí, ì fíbà Jén mɔ́.*
 1SG.SBJ NEG agree 3SG.SBJ resemble Jane more
 ‘I don’t agree, she resembles Jane more.’ (Krio)
- c. SP1: *nɔ́ ó, Mérì fíbà ín.*
 NEG EMP 3SG.SBJ resemble 3SG.INDP
 ‘No, Mary really resembles **her** [i.e. Gladys].’ (Krio)

Ghanaian Pidgin English (GhaP) also features pragmatically conditioned variation (Type 3). Some informants accepted the use of *ín* for contrastive object focus, compare (19), but it is rare in comparison to the cleft focus alternative in (20).

- (19) *à sí ín dé.*
 1SG.SBJ see 3SG.INDP there
 ‘I saw **him** there (not his mother).’ (GhaP)
- (20) *ì bì ín à sí dé.*
 3SG.SBJ cop 3SG.INDP 1SG.SBJ see there
 ‘It’s him I saw there/ I saw him there.’ (GhaP)

GhaP however differs from all other AECs represented in Table 3 on all other counts. GhaP neither has TCSA (Type 1a/b) nor /r/ epenthesis conditioned by

OCP_{Height} (Type 2). Compare (21) below, featuring *kávà* ‘cover’ with a coda-less L-toned and [–high] final syllable. The insertion of /r/ is unattested in my data (a), and so is the use of suppletive *ín* in a focus-neutral clause like (b).

- (21) a. *yù fɔ́ kávà(*[r])=àm wél.*
 2SG have.to cover=3SG.OBJ well
 b. **yù fɔ́ kávà ín wél.*
 2SG have.to cover 3SG.INDP well
 Intended: ‘You have to cover it well.’ (GhaP)

Nigerian Pidgin (NigP) and Cameroon Pidgin (CamP) do not feature TCSA either. Neither does my corpus contain evidence of NigP and CamP displaying the pragmatically conditioned alternation of Krio (18), and GhaP (19). NigP and CamP employ cleft focus constructions instead. Unlike GhaP, NigP and CamP have, however, retained /r/ epenthesis through their Krio lineage, also based on OCP_{Height}. Hence in both NigP and CamP we find /r/ insertion with words whose English etymons feature a “linking” /r/, e.g. *kóvà[r]=àm* ‘cover it’, *tíè[r]=àm* ‘tear it’, *híè[r]=àm* ‘hear it’, *shé[r]=àm* ‘share it’. The rule is strict in my corpus and also covers acrolectal (i.e. more English-like) items like *àkwáyà[r]=àm* ‘acquire it’, *kònsídà[r]=àm* ‘consider it’. In both NigP and CamP, /r/ epenthesis is also found with African-derived words with the conditioning feature, hence words for which an “underlying” /r/ cannot be construed, e.g. NigP *wàhálà[r]=àm* ‘trouble him/her’.

Although NigP and CamP behave in the same way with respect to /r/ epenthesis, they differ fundamentally in the distribution of the 3SG.INDP form *ín*. In NigP, *ín* does not appear in the object position at all, neither by phonological (Type 1a/b and Type 2) nor pragmatic conditioning (Type 3). *In-situ* object focus as in Krio (18) or GhaP (19) is therefore impossible and NigP speakers (Example (22)) resort to cleft focus instead, in a construction (near-)identical to that of Pichi (9) and GhaP (20):

- (22) *nà ín (wé) à sí yéstàdé.*
 FOC 3SG.INDP SUB 1SG.SBJ see yesterday
 ‘It’s **him/her** (that) I saw yesterday.’ (NigP)

Conversely, CamP does allow the appearance of *ín* ‘3SG.INDP’ in the object position, however with a function entirely different from that found in any other West African AEC. The alternation is based on an animacy distinction, and is hence semantically conditioned (Féral 2001), classified as Type 4 in Table 3. The default AEC 3SG object form *=àm* instantiates an inanimate referent, as in (23) (i.e. the ball). The suppletive variant *yí* (the cognate form of *ín*), on the other hand, instantiates an animate referent, as in (24) (i.e. the child). The animacy distinction is, however, not strict and *=àm* may also reference an animate participant (Schröder 2013: 188). There is of course, no restriction on the use of *ín/yí* for a focused referent *in the*

subject position, as in (23) after the comma, a pragmatically induced variation that is possible in all other AECs as well (cf. (8) for Pichi).

- (23) *dì mán sén dì ból, yí tú kách=àm ègén.*
 DEF man send DEF ball 3SG.INDP too catch=3SG.OBJ again
 ‘The man threw the ball, (and) she too caught it [the ball] again.’ (CamP)
- (24) *ì dón fólò dì pikín kách yí.*
 3SG.SBJ PRF follow DEF child catch 3SG.INDP
 ‘She has followed the child (and) caught it [the child].’ (CamP)

Pichi and CamP are therefore outliers in possessing a grammaticalised suppletive alternation of *=àm* and *ín* not attested in other AECs, namely Type 1a/b and Type 4. Pichi had intensive contact with CamP throughout much of the 20th century (Lipski 1992; Yakpo 2013a). It is well possible that the non-pragmatic nature of the alternation in CamP had some influence on the development of an equally non-pragmatic TCSA in Pichi. The other two types of alternation (Types 2 and 3) are always shared by at least two varieties in Table 3. Crucially, Types 2 and 3 are only found *together* in Krio, which is therefore the most likely source of OCP_{Height} and the pragmatically conditioned alternation in the other AECs. The two variants *=àm* and *ín* as such are, of course, also inherited from Krio. Their functions are, however, entirely different in CamP and Pichi, and probably emerged in their respective linguistic ecologies after the split from Krio.

6. Inheritance, contact and convergence in the differentiation of pronoun suppletion

I suggest that contact-induced change has played a central role in the emergence and consolidation of the two outlier types of variation, which are OCP_{Tone} and TCSA in Pichi, and semantically conditioned suppletion in CamP. Contact may also have played a role in the differing fate of /r/ epenthesis in Pichi, CamP, NigP, and GhaP. I begin with possible scenarios of the emergence of TCSA in Pichi, which are once again the most complex.

I hypothesise that the presence of Equatoguinean Spanish verbs in codemixed Pichi verb-object collocations (see (10) and (11)) has been an important trigger of the expansion of TCSA. Distributional restrictions in the integration of non-native words and the use of special morphology for accommodating non-native words are well-known processes from language contact studies (Wohlgemuth 2009 chapter 7 for an overview). I suggest that the inadmissibility of *=àm* enclisis and epenthesis both led to the recruitment of *ín* as an object pronoun for Spanish-sourced

verbs. The constructionalisation of TCSA with Spanish verbs and a corresponding increase in generality would have been an important step in the consolidation of TCSA with Pichi verbs (see Traugott and Trousdale 2013; Trousdale 2014). Extensive codemixing with Spanish forms an integral part of the linguistic system of Pichi (Yakpo 2009).

The alternation between the object forms *=àm* and *ín* could rely on grammaticalised patterns of variation in Krio (Type 2 in Table 3) and CamP (Type 4). CamP and Pichi were in intense contact until well into the 20th century (Lipski 1992). If $\text{OCP}_{\text{Height}}$ was transferred to Pichi from Early Krio, as it was to NigP and CamP, it probably became opaque as a constraint in Pichi because of the many lexicalised exceptions inherited from Early Krio. This may have facilitated the replacement of $\text{OCP}_{\text{Height}}$ by the strict, inviolable OCP_{Tone} rule and the recruitment of /r/ epenthesis as a salvage route for OCP_{Tone} .

The developments outlined above still call for an explanation for the presence of OCP_{Tone} in Pichi. Tonal OCP phenomena are commonplace in the Bantu adstrates of Pichi. There is no data on Bube, but the Bantoid languages of the Beti-Bulu-Fang cluster, spoken by the vast majority of Equatoguineans including speakers of Pichi, display tonal OCP phenomena of various kinds (e.g. Eton, see van de Velde 2008: 63–66). Tonal OCP phenomena are also common throughout Benue-Congo and have been documented particularly well for Narrow Bantu, the subfamily to which Bube belongs (see Myers 1997).

Beyond an areal proclivity for tonal dissimilation, a plausible specific source of OCP_{Tone} in Pichi is Yoruba, also a Benue-Congo language. Early Krio shares a direct historical link with Yoruba (see Section 2), and there is evidence for structural influence of Yoruba on (Pichi via) Early Krio (e.g. Yakpo 2017a). Yoruba has a tonal dissimilation strikingly similar to the Pichi OCP in its domain of application: clitic object pronouns acquire a tone polar to that of the wordfinal vowel of the preceding verb (Akinlabi and Liberman 2000). After L- or Mid-toned verbs, object clitics always bear an H tone, as in (25a). After H-toned verbs, object pronoun clitics become Mid-toned via deletion of the H tone, as in (25b) (Mid tone is unmarked; gloss mine).

- (25) a. *ó kò ó.*
 3SG.SBJ divorce 3SG.OBJ
 ‘S/he divorced him/her.’
 b. *ó kó o.*
 3SG.SBJ teach 3SG.OBJ
 ‘S/he taught him/her.’

(Akinlabi and Liberman 2000: 39)

The assumption of a Yoruba source of OCP_{Tone} implies that it was carried over to Pichi from Early Krio. In such a scenario, $\text{OCP}_{\text{Height}}$ may have replaced an earlier OCP_{Tone} in Early Krio, for example through contact with English in a later phase. The shift from OCP_{Tone} to $\text{OCP}_{\text{Height}}$ in Early Krio would then have taken place *after* the split of Pichi from Early Krio in the 1820s but *before* its arrival in Nigeria and Cameroon from the 1850s onwards. This is a potential explanation for the presence of OCP_{Tone} in Pichi as opposed to $\text{OCP}_{\text{Height}}$ in NigP and CamP. Alternatively, OCP_{Tone} and $\text{OCP}_{\text{Height}}$ could have been competing constraints in Early Krio, or could have been present in different lects of the language, which then served as a variable input into Pichi and the other AECs. The exact nature of the situation in Early Krio and the transfer processes to Pichi however remain guesswork.

The presence of a semantically conditioned animacy suppletion in CamP is equally intriguing, but the facts are more straightforward. Adstratal contact has been suggested as a likely source of the CamP animacy distinction (Féral 2001: 519–522). All the adstrates of CamP are Bantu and Bantoid languages with noun class systems (see Section 2), and animacy is a central semantic determinant of membership in the most frequently occurring noun classes in these languages.

A feature that may be related to superstratal contact is the absence of the distinctly Krio /r/ epenthesis in Ghanaian Pidgin English, as opposed to its presence in Pichi, NigP and CamP. Ghanaian Pidgin English has been shown to differ from its West African sister languages in its social functions. It is principally an urban (youth) sociolect, not a (nativised) lingua franca (Dako 2002; Yakpo 2016). Due to its sociohistorical trajectory (see Section 2), GhaP is also divergent via the absence of other Krio features (see Huber 1999: chapter 4; Yakpo 2013a). My work in progress also shows a higher degree of influence from Ghanaian English in lexical semantics. Hence, the epenthesis of /r/ may not have been transmitted to GhaP in the first place. It is, however, equally possible that /r/ epenthesis disappeared due to the influence of Ghanaian English, which is, like the other West African Englishes, a non-rhotic variety (Trudgill and Hannah 2017: 130).

In the light of the non-rhoticity of West African Englishes, the survival of /r/ epenthesis in Pichi, NigP, and CamP is interesting. It suggests that Krio-speaking founder populations (see Mufwene 1996) could shape the emerging AEC varieties of Equatorial Guinea, Nigeria, and Cameroon far more than that of Ghana, thus supporting sociohistorical and linguistic evidence (see Huber 1999: chapter 4 and the sources contained therein). The massive expansion of GhaP, Pichi, NigP, and CamP to non-founder populations in the past hundred years or so has therefore led to three outcomes in the acquisition of AECs by non-founder populations with respect to /r/ epenthesis: (1) GhaP has lost the epenthetic segment and the $\text{OCP}_{\text{Height}}$ rule altogether; (2) Pichi has lost the $\text{OCP}_{\text{Height}}$ rule and epenthesis is being replaced by strict TCSA in order to ensure respect of the new OCP_{Tone} rule;

(3) in NigP and CamP, OCP_{Height} has been generalised, the lexical idiosyncrasies of /r/ insertion have been eliminated, and epenthesis is (becoming) strict in order to ensure OCP_{Height}. The scenarios suggested in this section can account for the quite remarkable differentiation that pronominal alternation has undergone in the five African AECs.

7. Conclusion

Tonological, phonological, pragmatic and semantic factors condition the alternation of the two suppletive 3sg object pronouns =àm and ín Pichi, Krio, Ghanaian Pidgin English, Nigerian Pidgin, and Cameroon Pidgin. This study suggests that complex intersecting factors have fashioned pronominal suppletion in the AECs in processes of change and differentiation similar to those found in other geographically extensive language families. These processes are migration from linguistic homelands, the presence of founder populations, acquisition by non-founder populations, interlectal cross-diffusion, as well as contact and convergence with adstrate, substrate, and superstrate languages. The focus of this article was the development in Pichi, which presents the most complex scenario. The general picture of the differentiation of the grammar of pronominal alternation in the African AECs, is, however, equally interesting and instructive.

Population movements have led to *genealogical splits* between Krio and the other AECs. This has led to the retention of some features from Krio in all AECs (e.g. the allomorphs =àm and ín), and the abandonment of others (e.g. the pragmatic conditioning of suppletion in Pichi). *Interlectal diffusion* contributed to the reanalysis of existing forms (e.g. the possible influence of semantically conditioned pronominal alternation in Cameroon Pidgin on the development of Pichi TCSA). *Adstratal contact* of Pichi with Bube and other Bantu languages and *substratal transfer* from Yoruba to Early Krio were involved in the transfer of OCP phenomena to Pichi. *Adstratal contact* of Cameroon Pidgin with Sawabantu languages was instrumental in the emergence of an animacy distinction. Contact with the *non-lexifier superstrate* Spanish played a key role in the generalisation of TCSA in Pichi, while contact with the *lexifier superstrate* English may have caused the demise of /r/ epenthesis in Ghanaian Pidgin English.

The overall outcome is the development of typologically interesting phenomena of pronominal variation in the AECs. I hope to have shown how detailed primary data and a careful comparative analysis of a specific functional area can contribute to unravelling the processes behind the differentiation of the Afro-Caribbean English-lexifier Creoles.

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Glossing conventions and abbreviations

-	Morpheme Boundary
=	Clitic Morpheme Boundary
:	Separates meanings of unparsed morpheme
#	Word Boundary
1	1st Person
2	2nd Person
3	3rd Person
ó	High Tone
ò	Low Tone
C	Consonant
COP	Copular Verb
DEF	Definite Article
EMP	Emphatic Particle
FOC	Focus Particle
H	High Tone
INDP	Independent Person Form
IPFV	Imperfective Aspect
L	Low Tone
M	Mid Tone
NEG	Negative Particle
OBJ	Object Case
PFV	Perfective Aspect
PL	Plural Number
PLACE	Place Name
POSS	Possessive Case
POT	Potential Mood
PREP	General Associative Preposition

PRF	Perfect Aspect
PRS	Present Tense
SBJ	Subject Case
SG	Singular Number
SUB	Subordinator
TCSA	Tone-conditioned Suppletive Allomorphy
ṽ	High-toned Vowel
ṽ	Low-toned Vowel

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