

## Creolization

### 1. *What is a creole language?*

Languages change over time. We have seen some of the changes that the Romance and Germanic languages have undergone. Language contact can play an important role in language change. When speakers of one language come into contact with speakers of a different language, their language may influence the other language when they try to learn this. This may in turn have an effect on the original speakers of the language in question. Changes can take a long time to be completed. In extreme cases of language contact, however, it is possible that the languages in contact change very rapidly. The outcome of such a radical process of change may be a language that cannot easily be described as a straightforward development of any one of the particular languages in contact – it can be regarded as a truly new language. Languages that are the result of such a process are called *creole languages* (or simply *creoles*).

Often (though it has been debated whether this is always the case) the first stage in a process of creolization is a *pidgin*. This is a strongly reduced form of language that is used as a means of communication when two groups of speakers of mutually unintelligible languages come into contact. Pidgins typically lack function words, have variable word order, little or no morphology and use simple sentences (no embedding). You can get an idea of what this looks like by considering the sort of speech English speakers may use when conversing with someone who does not speak English, so-called *foreigner talk* (or, similarly, how the speech of ‘primitive’ non-English-speaking characters is represented in books, films, etc., so-called *Tarzan speech* (1c)).

- |     |    |                     |                                     |
|-----|----|---------------------|-------------------------------------|
| (1) | a. | What you say?       | (no auxiliary <i>did</i> )          |
|     | b. | You no work here.   | (fixed preverbal negative particle) |
|     | c. | Me Tarzan, you Jane | (object form of pronoun, no copula) |

In contrast to pidgins, creoles are full-fledged natural languages, with a fully developed grammatical system. An intriguing question, then, is how the properties of a creole language come into being. As we will see, this question has led to much (and sometimes rather heated) discussion.

So, a creole is a language that results from a situation of ‘extreme’ language contact. But what is extreme? Suppose there is contact situation involving two or more mutually unintelligible languages, one of which is spoken by the group that is in power, socially and/or economically and/or politically. This language is usually referred to as the *superstrate* language. The language(s) of the underlying group(s) are the *substrate* languages. Generally speaking, the superstrate and substrate speakers must find a means to communicate, but given the balance of power there will be more pressure on the substrate speakers to learn the superstrate than vice versa. We may then describe a situation of ‘extreme’ language contact as one in which the conditions for acquisition of the superstrate are very bad. There are various factors that determine these conditions, among which are (i) the ratio of superstrate speakers and substrate speakers – if there are many more substrate speakers than there are superstrate

speakers, access to the superstrate is limited (ii) the social conditions under which the superstrate must be learned – it will not help successful acquisition if the substrate speakers do not receive formal instruction in the superstrate and are treated very badly by the superstrate speakers (iii) whether or not the substrate speakers formed a homogeneous group themselves. Given these factors, it is not surprising that most creole languages are associated with the history of Western European colonization in roughly the 16th-18th centuries and, in particular, with the slave trade. This certainly led to severe language clashes. There was of course always language contact involved in colonization, when the colonizers came into contact with the original inhabitants of the area. In those places where large numbers of slaves were imported (think of the plantations), from different areas in Africa, so with various language backgrounds, this ‘language clash’ intensified greatly. (This is certainly not to say that there are no creoles with a different historical background. A very interesting recent case of creolization, involving signed language, is reported in Kegl et al. 1999).

It is important to keep in mind that notions such as ‘severe language clash’ and the notion ‘creole language’ itself are not black and white notions. There are languages that may be described as ‘radical’ creoles, languages that might be termed semi-creoles, languages that have undergone changes that indicate that some limited creolization-like process took place (such as English!), and so forth. In general, it is useless to argue over the question of whether a particular language must be labelled a creole or not, or something else. The interesting question is how the language in question originated and developed its grammatical properties. Creolistics is nevertheless regarded as a special branch of linguistics, with its own intrinsic interest, because (i) creoles represent the result of language change under the most extreme circumstances of language contact and we want to know how language change works (ii) radical creoles appear to be strikingly similar (although this is far from undisputed), so the question is why that should be (iii) creoles are sometimes regarded as ‘mixed’ languages, that is, languages that are a mix of some properties of one language and some properties from another language - the question then is which features of the creole derive from which of the languages in contact, and why.

With respect to the latter issue, it can be observed that the superstrate language usually provides most of the lexicon of the creole; it acts as the so-called *lexifier* language. This is why the languages were called ‘English creoles’, ‘Portuguese creoles’, etc., despite their grammar being radically different from that of English, Portuguese, etc. It has been argued that most of the grammar, in contrast, derives from the substrate language(s), but as we will see the question of the origins of the grammatical properties of creoles is still very much a matter of debate.

Note that, when discussing such grammatical properties, it is something of a simplification to talk about ‘the’ properties of ‘the’ creole, since often there are different varieties of a creole. Some of these (the *acrolects*) are closer to the superstrate than others (the *basilects*), with some (the *mesolects*) in between. This might reflect an original situation in which there was a ‘white’ and a ‘black’ variant of the new language. Note also that, once the creole comes into being, it is subject to ordinary processes of language change. Thus, the properties it has today need not be the same as the properties it had at the time of origin. In case the superstrate language remained an important language in the area, we often see that the creole gradually

changes in the direction of the superstrate and might in the end be superseded by it entirely, a process known as *decreolization*.

We will now first have a look at a brief overview of which creoles are spoken where. Then, we will discuss some of the structural properties that have been taken to be typical creole features. Finally, we will consider which answers have been given to the question how these structural properties have come about.

## 2. Overview

Given their association with the period of Western European colonization, it is not surprising that most creoles have as their lexifier a language of one of Europe's seafaring nations at the time, mainly Portuguese, Spanish, French, English and Dutch, and that most of them are/were spoken around the Atlantic (the African west coast, the South-American east coast, the Caribbean (the 'West Indies')), and in the Indian and Pacific Oceans (the 'East Indies')).

Creoles with Portuguese as lexifier include Cape Verdian Criolou, Papiamentu (Dutch Antilles, heavily influenced by Spanish) and Malaysian Portuguese (extinct).

Creoles with French as lexifier include Haitian Creole, Mauritian Creole and Seychellois.

Creoles with Spanish as lexifier include Palenquero (Colombia) and Chabacano (Philippines).

Creoles with English as lexifier include Jamaican Creole, Hawaiian Creole, Saramaccan (Surinam, influenced by Portuguese), Sranan (Surinam, influenced by Dutch), Sierra Leone Krio, Liberian Creole, and Tok Pisin (New Guinea - TP is usually described as an 'expanded pidgin' rather than a creole, as originally it was not nativized (i.e. did not function as a mother tongue for children in first language acquisition), but structurally it is as complex as a creole).

Creoles with Dutch as lexifier include Negerhollands (Virgin Islands (formerly the Danish Antilles); extinct) and Berbice Dutch (Guyana; probably extinct). Afrikaans (South-Africa) may be considered a semicreole (but see above on the general uselessness of such terminology).

The maps attached at the end of this handout give a detailed overview of where all the various creoles and pidgins are spoken.

## 3. Structural properties

The structural properties mentioned below have been said to be typical for creole languages. Keep in mind, however, that this certainly does not mean that a creole language will show all of these properties or that a creole language cannot show features that go against these characteristics to various extents (and, of course, that none of these properties taken on its own is unique to creole languages).

- There is little or no inflectional morphology. Even if the languages in contact all have some inflectional morphology, the language that results from the contact situation often as good as lacks it.

Compare the verbal tense and agreement system of Dutch and Afrikaans of the verb *werk* 'work':

(2)	Dutch	Afrikaans
Present		
1sg	werk	werk
2sg	werkt	werk
3sg	werkt	werk
1pl	werken	werk
2pl	werken	werk
3pl	werken	werk
Past		
Sg (all persons)	werkte	het gewerk
Pl (all persons)	werkten	het gewerk
Perfect	heb/hebt/hebben gewerkt	het gewerk
Pluperfect	had/hadden gewerkt	het gewerk
Infinitive	werken	werk

• Pronominal paradigms are levelled. Instead of showing distinct subject and object forms (like English *he* versus *him*) and distinct gender forms (like English *she* versus *he*) there are generalized forms, often the ones that function as masculine object pronoun in the lexifier language:

(3)	Pronouns in	Papiamentu	Tok Pisin
	1sg	mi	mi
	2sg	bo	yu
	3sg	e	em
	1pl	nos	mipela (excl.) / yumi (incl.)
	2pl	boso	yupela
	3pl	nan	ol

The *-pela* ending in the plural in Tok Pisin derives from English *fellow(s)*. Tok Pisin in fact also distinguishes *dual* forms (1st excl. dual *mitupela*, 1st incl. dual *yumitupela*, 2nd dual *yutupela*, 3rd dual *tupela*) (and even *trial* forms: *mitripela*, *yumitripela* etc.).

• Word order is strictly VO. Recall (from week 3) that languages can be divided into two types: the OV languages, who put their verbs after their object (and often also their prepositions after their prepositional complements (i.e. they have postpositions), their complementizers after the clause they introduce (or rather ‘outroduce’ in their case), their nouns after their nominal modifiers, etc.) and VO languages, who put their verbs before their objects (and often also show the opposite word order for the other categories mentioned). Creoles overwhelmingly belong to the latter type, i.e. they are all VO-languages. This can be quite striking. There is at least one case in which both the superstrate and the substrate are OV languages, namely Berbice Dutch. This is rather exceptional in that it seems to have had mainly one, rather than many, substrate language. As a consequence, the substrate had a much greater influence on the lexicon than usual, and it can therefore be identified with precision, namely as Eastern Ijo (a

West-African language of the Niger-Congo family). East-Ijo is a strictly head-final (OV) language:

- (4) a. béle-bi-ò náma tua  
*pot-the-in meat put*  
 ‘put meat in the pot’  
 b. u-momó wári-bi-ò tími  
*him-with house-the-in stay*  
 ‘stay with him in the house’

Dutch, as you know, is an OV language too, although it has the Verb Second rule for finite verbs in main clauses. Despite this, Berbice Dutch is a strict VO language:

- (5) a. Ek wa sa ku-te en or twe fan eni.  
*I PAST IRR catch-PERF one or two of them*  
 ‘I would have caught one or two of them.’  
 b. Eke pamte ju bi fa las jer ek a mote mu kiki di dispensa.  
*I told you that for last year I PAST must go see the dispenser*  
 ‘I told you that, last year, I had to go and see the dispenser.’

- For the expression of tense (past and future versus present), mood (whether the verb expresses a command, wish, assertion, counterfactuality, etc.) and aspect (the temporal structure of the event expressed by the verb, e.g. whether it is completed, ongoing or iterative), most creole languages make use of small words, so-called particles, in a fixed position in the clause, namely left-adjacent to the verb. The lexical form of these TMA markers often derives from auxiliaries and modals in the superstrate. In case there are two or three particles in a sentence, they come in a fixed order, namely tense-mood-aspect.

(6) Verbal markers in Sranan and Haitian Creole (from Holm 2000)

	Sranan	Haitian	
Unmarked	Mi --- taki	Mwen --- pale	‘I talk’
Anterior	Mi ben taki	Mwen te pale	‘I (had) talked’
Progressive	Mi e taki	M ap pale	‘I am talking’
Anterior + Progr.	Mi ben e taki	Mwen t ap pale	‘I was talking’
Habitual	Mi sa e taki	Mwen konn pale	‘I talk (regularly)’
Completive	Mi taki kaba	Mwen fin pale	‘I have talked’
Irrealis	Mi sa taki	Mwen va pale	‘I will talk’ (less cert.)
	Mi (g)o taki	M ap pale	‘I will talk’ (more crt.)
Anterior + Irrealis	Mi ben sa taki	Mwen t a pale	‘I would have talked’
Irrealis + Progr.	Mi sa e taki	M av ap pale	‘I will be talking’
Anterior + Irr + Prog	Mi ben sa e taki	Mwen t av ap pale	‘I would have been tk’

- Sentential negation is also expressed by a preverbal particle in most creoles. This comes before the TMA-markers. The examples in (7) are from Miskito Coast Creole (lexifier English), Haitian Creole (lexifier French) and Negerhollands (lexifier Dutch), respectively.

- (7) a. Shi no ko op de.  
*She NEG come up there*  
 ‘She doesn’t come up there.’

- b. Jan pa t av ale nan mache.  
*Jean NEG ANT IRR go to market*  
 ‘Jean would not have gone to the market.’
- c. Mi no wet, wa ju gut fo.  
*I NEG know what you good for*  
 ‘I don’t know what you’re good for.’

• There is a preference for CV-syllables, that is to say, for syllables that have the form Consonant-Vowel. As noted, the superstrate often supplies the lexicon of the creole. This is not to say, however, that the words are always taken over unaltered. Often we can see adaptations that have the effect that the syllables fit better into what appears to be the unmarked pattern universally, namely CV. (One thing that indicates that CV is unmarked, as opposed to for example VC, is that babies start out with it: *dada, mama, tata, papa* etc.). The following are examples of such adaptations:

- (8) a. *Aphesis*  
 Sranan *tan* < English *stand*  
 Negerhollands *tomp* < Dutch *stomp*  
 Príncipe *kupa* < Portuguese *ocupar*  
 Trinidadian *rive* < French *arriver*
- b. *Syncope*  
 Príncipe *gani* < Portuguese *grande*  
 Príncipe *buka* < Portuguese *buscar*  
 Sranan *kosi* < English *curtsy*  
 Sranan *sisi* < English *sister*
- c. *Apocope*  
 Haitian *ris* < French *risqué*  
 Negerhollands *tan* < Dutch *tand*
- d. *Epenthesis*  
 Príncipe *álíma* < Portuguese *alma*  
 Negerhollands *kini* < Dutch *knie*
- e. *Paragogue*  
 Príncipe *dósu* < Portuguese *dos*  
 Saramaccan *dagu* < English *dog*  
 Negerhollands *groto* < Dutch *groot*
- f. *Metathesis*  
 Príncipe *kiryá* < Portuguese *criar*

• Extensive use is made of morphological conversion. Conversion is morphological derivation that does not affect the shape of the word it applies to (‘zero derivation’). The result is that the same word form can function as different lexical categories. An example from English is *work*, which can either be a verb or a noun. This happens quite a lot in creoles.

- (9) Tok Pisin *antap* (< English *on top*): ‘surface’ (N), ‘high’ (A), ‘above’ (Adv)  
 Negerhollands *hopo* (< Dutch *op* ‘up’): ‘up’ (P), ‘to get up’ (V)

- There is fairly extensive use of morphological reduplication. Reduplication is morphological derivation that is expressed by a doubling of (part of) the word to which it applies.

- (10) Negerhollands *fru* ‘early’ - *frufru* ‘morning’  
 Haitian *gran* ‘big’ – *gran-gran* ‘huge’  
 Miskito Coast *wan* ‘one’ – *wan-wan* ‘one by one, gradually’  
 Miskito Coast *krai* ‘to cry’ – *krai-krai* ‘constantly crying, fretful’  
 Afrikaans *huil* ‘to cry’ – *huil-huil* ‘crying’

- Many creoles have so-called serial verb constructions. A serial verb construction is a single sentence (rather than two conjoined ones or one embedded in the other) that contains two (or more) main verbs, one (or more) of which seems to function as the equivalent of a preposition in a language like English.

- (11) a. Kumpra pan duna e yo. (Papiamentu)  
*Buy bread give the baby*  
 ‘Buy bread for the baby.’ (NOT: ‘buy bread and give (it to) the baby’)
- b. Ron go lef him (Jamaican)  
*run go leave him*  
 ‘Run away from him.’
- c. A teke nefe koti a meti. (Ndyuka)  
*he took knife cut the meat*  
 ‘He cut the meat with a knife.’

- The plural of a noun is often expressed by affixing the 3rd person plural pronoun (i.e. the equivalent of ‘them/they’) to it.

- (12) Nigerian Pidgin English *niám-dem* ‘yams’, Haitian *nòm-yo* ‘men’, Afrikaans *skaap-hulle* ‘sheep’, Papiamentu *buki-nan* ‘books’, Guyanese Creole *fam-ya* ‘women’, Negerhollands *boterham-sender* ‘slices of bread’.

- Absence of a copula:

- (13) a. Di pikni sik (Jamaican)  
*The child sick*  
 ‘The child is sick.’
- b. Wen i soba, ... (Guyanese)  
*when he sober*  
 ‘When he is sober, ...’

- Absence of a morphologically marked passive construction.

- In many creoles question words take the form of a combination of a general question morpheme and a second part that indicates the type of thing being questioned, i.e they have the equivalents of ‘what-thing’ for ‘what’, ‘what-person’ for ‘who’, ‘what-time’ for ‘when’, ‘what-place’ for ‘where’, etc.

- (14) Guyanese *wi-said* (< *which side*) ‘where’, Haitian *ki koté* ‘where’, Cameroons *we-tin* ‘what’, Negerhollands *wat-maak* ‘why’, Haitian *ki fer* (< *qui faire*) ‘why’

- A number of the Atlantic creoles have a general locative preposition *na*. Its precise meaning in a sentence (whether ‘in’, ‘at’, ‘to’ etc.) depends on the context.
- Reanalysis/Grammaticalization. As noted, pidgins typically lack function words, such as determiners or complementizers. When the pidgin expands and turns into a full-fledged creole, new words are hence needed to act as such. These will usually be supplied by the lexifier language. However, the words that function as function words in the creole are often not that in the lexifier, but rather a lexical category such as a verb or a noun. For example, the word for the verb ‘say’ in the lexifier can become a complementizer in the creole, the word for ‘fellows’ or ‘group’ can become a plural marker in the creole (see the Tok Pisin example in (3) above), and so on:

- (15) a. M sab tak a tru. (Sranan; *tak* derives from *talk*)  
*I know that that true*  
 ‘I know that it’s true.’
- b. Am noit sa prat se a Tekoma a mata di kui.  
*he never will talk that that Tekoma that kill the cow*  
 ‘He never will tell that it was Tekoma who killed the cow.’  
 (Negerhollands; *se* derives from Dutch *zeg* ‘say’)

The process by which a lexical category is turned into a functional one, often termed ‘grammaticalization’, can also be observed in internal diachronic changes in most every language.

#### 4. Theories of creolization

There are many theories around about the origins and development of creole languages. Very generally speaking, there is a debate about whether the properties of a creole can be derived more or less directly from the properties of the languages involved in the contact situation, or whether universal processes of either first or second language acquisition give rise to particular features in a grammar when the language acquisition takes place under specific, extreme, conditions of language contact. A, necessarily sketchy, overview of the various theories is given below.

- *Monogenesis*. According to this theory, all creoles developed out of the same single source language. This is supposed to be a Portuguese pidgin, once spoken on the west coast of Africa (WAPP – West African Portuguese Pidgin). WAPP was based on a much reduced and simplified form of seafarer’s Portuguese that was used as a trading jargon with the original inhabitants. WAPP was taken to the colonies by the slaves and *relexified* with words from the particular superstrate language with which they came into contact. Relexification involves keeping the grammar of your own language intact as much as possible, but using words from another language in the grammatical structures that this grammar produces.

This theory obviously accounts for the grammatical similarities that can be detected to various extents between the creole languages – these must have been properties of the original WAPP. The question is how likely it is historically that every original speaker of any creole had come into contact with this Portuguese pidgin or a relexified version of it, before the creole in question emerged. This is questionable for the Atlantic creoles, and it certainly does not hold for all other creoles, for which the theory hence does not account in any case.

- The *European dialect* hypothesis. This theory considers the creoles basically as developments of the superstrate languages, albeit that these languages changed much quicker than usual due to contact with other languages. Thus, when confronted with the radical loss of inflection in creoles, a proponent of this theory would point out that deflexion was already an inherent trend in the Western European languages (cf. week 3), albeit that it took place at a slower pace there.

At first sight, this hypothesis seems clearly untenable, given that the grammars of creoles are very different from the grammars of the modern standard languages of Western Europe. It is important to keep in mind, however, that it was not the modern standard version of Portuguese, English, etc., that was involved in the contact situation. Rather, it was a 16/17th century version of a particular dialect of the language. The 16/17th century dialect in question will have had different properties from the 20/21st century standard language, and it is possible that the differences we see between the creole and the modern standard language were features of the dialect.

Thus, the proponents of this theory typically try to bolster it by pointing out parallels between creoles and European dialects. However, in doing this, it is very important to keep in mind that only the dialect that was plausibly involved in the original contact situation can be of any relevance. If all European dialects are considered together, they contain so many features that it will most likely be possible to find a particular feature of the creole in one or other of them. But if that dialect was not involved in the contact situation it cannot have been the source for the creole's feature. For example, some people have pointed out that some word orders in Afrikaans that deviate from Dutch can be found in a particular Flemish dialect. In return, some other people argued (a bit sarcastically) that that observation was about as interesting as the observation that the word order in question occurs in Swiss German, in the absence of evidence that Flemish speakers played a decisive role originally in the settlement on the Cape. (Phonological comparison between Afrikaans and (modern) Dutch dialects seems to indicate that the most important dialectal source for Afrikaans are the dialects in the southern part of the current province of South-Holland – which are different from Flemish dialects). That you cannot use just any dialect to argue for a European dialect source of a creole's grammatical properties is known as the *Cafeteria Principle* (as in a cafeteria, people pick from the European dialect menu those things they like, i.e. those things they see in the creole – without considering whether a historical connection between the dialects that show the property in question and the creole is likely).

Although the source of some properties of the creole that deviate from the modern version of the superstrate may well be dialectal (for instance in its phonology), it seems safe to say that this theory cannot account for the overall grammatical properties of creoles, as these can differ radically from anything we know about the 16/17th c. European dialects. Even a 'semi-creole' like Afrikaans, which still has a recognizably Dutch-like basic syntax (OV and V2), has many properties that are entirely unlike anything known from 17th century Dutch.

- *Relaxification* of the substrate. In contrast to the previous hypothesis, this theory claims that the grammar of the creole is most heavily influenced by the substrate language. In fact, in its most radical form this hypothesis implies that the grammar of

the creole *is* the grammar of the substrate. The creole uses the lexicon of the superstrate, however. In other words, according to this theory the creole is a relexified version of the substrate.

Comparably to the previous theory, evidence for this hypothesis comes from parallels between the substrate languages and the ensuing creoles. And as in the previous theory, we must be aware of the pitfalls of the Cafeteria Principle: we must know exactly which substrate language was involved in the original contact situation. Pointing out parallels between a creole and a West African language is a useless exercise unless it can be shown that the language in question was involved as a substrate language when the creole in question developed. A complicating factor here is that, very often, many different substrate languages were involved. Nonetheless, for a number of the grammatical features of creoles a West African substrate source is certainly not unlikely. For example, serial verb constructions can be found in many West-African languages. For some other properties, a connection with the substrate languages seems more opaque (e.g. the general VO-nature of all creoles – compare the case of Berbice Dutch, which as noted had an OV substrate language).

- *Imperfect second language acquisition.* According to this hypothesis, the creole is the result of the attempts to learn the superstrate language by the substrate speakers. These attempts remained unsuccessful because of the bad circumstances under which the acquisition had to take place, so the substrate speakers get ‘stuck’, as it were, in an intermediate stage of L2 acquisition with an imperfect form of the superstrate. This forms the basis of the creole language. Roughly speaking, we can distinguish two variants of this idea. These differ in their view of how second language acquisition works.

In the first version, a theory of L2 acquisition is assumed that attributes a strong influence to *interference* from the first language of the learner. According to this theory, L2 learners will particularly make mistakes at those points where their own L1 grammar deviates from the grammar of the target language. In those cases, they impose their L1 grammar on the second language (hence, in this incarnation of it, the imperfect L2 acquisition theory is closely akin to the relexification theory – it assigns a decisive influence to the substrate languages).

In the second version, a theory is assumed according to which universal learning strategies are operative in L2 acquisition. These universal learning strategies have the result that all L2 learners make the same sort of mistakes, regardless of their L1 language. An example of what a universal learning strategy might be is ‘make a lot of use of analogy’ (use the same word order in embedded clauses as in main clauses, use the same article with all nouns, use the same inflection on all verbs (e.g. do not assume there are irregular, ‘strong’, verbs), and so on).

It seems that in L2 acquisition we can detect effects of both interference and universal tendencies in the deviations from the target language that occur, in different areas of grammar. It is, therefore, not clear that either one or the other of both theories mentioned must be the only correct one, to the exclusion of the other. Clearly, the first version of the imperfect L2 learning theory of creolization is better capable of explaining those features of a creole that parallel the features of the substrate language(s), whereas the second version is better capable of dealing with similarities

between creoles that cannot be attributed to them having shared substrate languages. At least, the latter holds if it can be shown that the mistakes L2 learners typically make result in the type of features that have been said to be typical for creoles – an interesting area of research.

- The *Bioprogram* hypothesis. Finally, there is a hypothesis that puts most emphasis on the role of first language acquisition in creole formation. According to this theory, every creole language must have had a pidgin predecessor. As noted, pidgins are very much reduced forms of language, lacking many elements that occur in full-fledged natural languages. Children are endowed with the genetical make-up that enables them to learn a natural language. It is assumed in this theory that this genetic endowment, termed the *language bioprogram*, takes the form of a general scheme of what the grammar of a natural language can look like that leaves open a number of choices that the child has to make on the basis of the language input it receives (compare Chomsky's *parameter* model). For example, the child will not have to learn that a verb and its object together can form a constituent to the exclusion of the subject, as this is an in-built feature of the general phrase structure principles the language learning device provides. But the child will have to decide whether, in the language that it is learning, the objects come before or after the verb (OV or VO) (which has other consequences as well). When the input is a full-fledged language, the choices will be made in accordance with the evidence that the language data provide. But when the input consists of a very much reduced pidgin, which is not subject to the grammatical principles natural languages are subject to, there is not enough (or conflicting) evidence for the child to make any particular choice. A crucial assumption in this theory then is that, for every choice that has to be made in L1 learning, there is an *unmarked* option. If the child does not receive consistent evidence for either option in a particular choice, it will choose this default option. The result is that we get a full-fledged natural language that has a 'complete' grammar again, in which many of the default options are realized.

This theory of course can account well for the observed similarities between creoles. That all creoles are VO-languages, for example, is a consequence of (i) pidgins not having a consistent word order and (ii) VO being the default value for the OV/VO choice an L1 learner has to make. Only consistent OV-evidence in the input will induce the child to opt for this value, but a pidgin does not provide such evidence. The theory does not account for substrate influences, although they are not incompatible with it as such – they may be the result of the substrate language influencing the structure of the pidgin enough for it to give consistent evidence for the L1 learners to opt for a particular choice in their grammar. A potential problem that has been pointed out concerns the crucial role children play in creating the creole grammar in this theory. Generally speaking, there weren't that many children at the colonies, the mortality rate was very high, and new adult slaves were constantly brought in. The question is how many surviving children there must be for them to have a decisive influence on the outcome of the language contact situation.

## Further reading

- Arends, Jacques, Pieter Muysken and Norval Smith (1995). *Pidgins and Creoles: An Introduction*. Amsterdam: John Benjamins.
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