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## Creole Languages



These widely scattered languages show striking similarities. The development of Creole in Hawaii suggests children learn a language by first constructing an abstract form of a creole

> Derek Bickerton July, 1983

The ancient Greek historian Herodotus records the story of Psamtik I, pharaoh of Egypt in the seventh century B.C., who set out to discover the original language of humanity. On royal decree two infants were taken away from their parents and put in the care of a mute shepherd, who was instructed to raise the children in isolation from other people. The shepherd was to take note of the first word uttered by the children; "uncorrupted" by the language of their forefathers, Psamtik reasoned they would begin to speak in the pure tongue from which all other languages were derived. The first intelligible sound the children made was "bekos," which meant bread in the ancient language Phrygian. Therefore, Psamtik maintained, the original language of humanity is Phrygian.

The story has amused generations of linguistics students. Most linguists, who have taken it for granted that no such experiment should ever be carried out, have dismissed the Psamtik experiment as being defective in design and unlikely to yield any useful result. Indeed, the assumption that an "original" vocabulary can be recovered is overoptimistic, and linguistic isolation of the individual, which has been documented in a few cases of se-

vere child abuse, usually results in the absence of language. Nevertheless, a modified form of the experiment has been repeated many times over the past 500 years among the children of slaves and laborers who were pressed into service by the European colonial powers.

These laborers, who were shipped from many parts of the world to tend and harvest crops in Africa, the Indian Ocean region, the Orient, the Caribbean and Hawaii, were obliged to communicate within their polyglot community by means of the rudimentary speech sytem called pidgin. Pidgin speech is extremely impoverished in syntax and vocabulary, but for the children born into the colonial community it was the only common language available. From these modest beginnings new native languages evolved among the children, which are generically called creole languages. It can be shown that they exhibit the complexity, nuance and expressive power universally found in the more established languages of the world.

Taken at face value, the development of many different creole languages suggests that the search for a single, original language is misguided. For many years, however, scholars have noted a re-

markable similarity of structure among all the creole languages. It can now be demonstrated, by considering the origin of creole language in Hawaii, that similarities among creoles cannot be accounted for by contact with other languages, either indigenous or imported. The finding suggests that what is common to creole languages may indeed form the basis of the acquisition of language by children everywhere. There is now an impressive body of evidence to support this hypothesis: between the ages of two and four the child born into a community of linguistically competent adults speaks a variety of language whose structure bears a deep resemblance to the structure of creole languages. Hence, by an ironic stroke of justice, the surviving linguistic remnants of colonialism may offer indispensable keys to the study of our own linguistic heritage.

The historical conditions that favored the development of creole languages are well known. Between 1500 and 1900 England, France, the Netherlands, Portugal Spain established numerous labor-intensive, agricultural economies on isolated littorals and underpopulated tropical islands throughout the world (see Figure 5.1). The colonies were engaged primarily in monoculture, usually sugar, and their economic viability depended on an abundance of cheap labor imported from distant regions under conditions of chattel slavery. Workers were drawn first from West Africa and later from East Africa, India and the Orient, and they spoke a variety of mutually incomprehensible languages.

Under more salutary conditions of immigration the workers or their children would eventually have learned the language of the local colonial power, but two factors combined to keep them from doing so. First, the number of speakers of the colonial languages rarely exceeded 20 percent of the total population, and it was often less than 10 percent. In other words, there were relatively few people from whom the dominant language could have been learned. Second, the colonial societies were small, autocratic and frigidly stratified. There were few chances for prolonged linguistic contact between field laborers and speakers of the dominant language.

Except in Hawaii, there is little reliable documentary evidence concerning the early linguistic history of the colonial societies. It has generally been assumed that pidgin developed as a contact language solely to allow communication between masters and workers and among workers from various immi-

grant groups. Creole languages then arose among the children of the workers through the "expansion" of pidgin; there was little occasion for the children to use the ancestral languages of their parents, and they still lacked access to the language of the dominant culture. What is meant by the term "expansion" has remained obscure until my colleagues and I began our studies in Hawaii.

The unique advantage for the study of creole language in Hawaii is that the details of its formation can be reconstructed at least in part from the speech of people still living. Although Hawaiian contact with Europeans goes back to 1778, it was not until 1876 that a revision in the U.S. tariff laws, allowing the free importation of Hawaiian sugar, enabled Hawaiian sugar plantations to increase their output by several hundred percent. A polygot force of indentured laborers, made up of Chinese, Filipinos, Japanese, Koreans, Portuguese, Puerto Ricans and Others, began to be assembled, and by 1900 it outnumbered the other groups in Hawaii, both native and European, by a ratio of two to one (see Figure 5.2)

A pidgin based on the Polynesian languages Hawaiian initially served as a means of communication between immigrants and the locally born, but the annexation of Hawaii by the U.S. in 1898 eventually led to the replacement of Hawaiian by English. After 1900 the Hawaiian language declined, and pidgin Hawaiian was replaced as a lingua franca by a pidgin based on English. By the time we began our intensive study of language variation in Hawaii in the early 1970's there were still many survivors, both immigrants and locally born, from the years 1900 until 1920.

ur recordings of locally born people make it clear that the process of creolization was under way by 1900 and was certainly complete by 1920. Most of the linguistic features that characterize Hawaiian Creole English are present in the speech of working-class people born in Hawaii since 1905; before that date the proportion of Creole speakers to the rest of the population falls off rapidly. On the other hand, the speech of immigrants is always some form of pidgin, although just what form it takes depends on the date of the immigrant's arrival in Hawaii as well as the immigrant's language background. The pidgin spoken by the earliest immigrants among our subjects is much more rudimentary than that spoken by the later ones, probably because the latter were exposed to Creole as well as HAWAIIAN C

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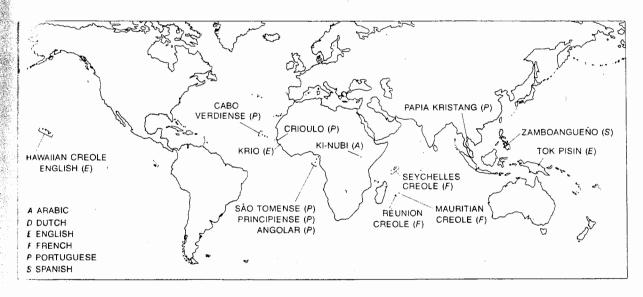
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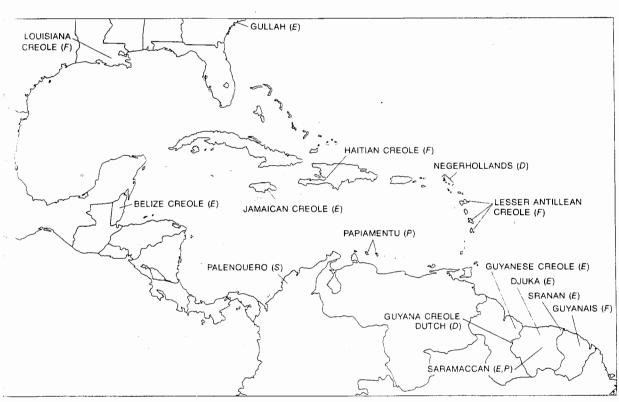


Figure 5.1 WORLDWIDE DISTRIBUTION of creole languages reflects the historical circumstances of their development. Almost all creoles arose on isolated tropical littorals or islands, where colonial powers had established agricultural economies based on cheap immigrant labor.

The geographic dispersion of the colonies suggests that creole languages developed independently of one another. The letters in parentheses after the name of each language indicate the colonial language from which most of the vocabulary of the creole is borrowed.



Figure 5.2 INDENTURED SUGARCANE WORKERS, who spoke a rudimentary language called pidgin, are shown in a photograph made in Hawaii by the late Ray Jerome Baker in 1924. Thousands of such workers from many countries were brought to Hawaii in the late 19th and early 20th centuries to meet the labor demands of large sugarcane and pineapple plantations. Pidgin language developments

oped out of the need for communication among the various language groups within this polyglot labor force. Socioeconomic circumstances similar to those in Hawaii frequently gave rise to pidgin languages throughout the world; these languages were later developed into creole languages by the children of immigrant laborers.

pidgin. Nevertheless, the distinction between pidgin and Creole remains fundamental: anyone familiar with Hawaii can quickly identify the ethnic origins of any immigrant on the basis of speech patterns alone. Without a conversational topic or a person's physical appearance as a guide, however, no one can reliably identify the ethnic origins of any locally born speaker solely on the basis of the speaker's pronunciation or the grammatical structure of the utterances.

One of the main characteristics of pidgin, therefore, is its variability from speaker to speaker. Each

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istics of pidgin, thereeaker to speaker. Each writing a makeshift language in some individual ay, for example, pidgin speakers of Japanese antity generally place the verb at the end of a senter, as in "The poor people all potato eat" ("All the poor people ate were potatoes"). Filipino adgin, however, places the verb before the subject: Work hard these people" ("These people work hard"). More often word order follows no fixed through except the pragmatic one that old, shared alormation is stated near the beginning of a senter and new information near the end.

It is probably the case that anything expressible in Creole, or in English for that matter, can also be expressed in pidgin. Nevertheless, the pidgin peaker is at a great disadvantage, because pidgin tacks many of the building blocks possessed by all native languages. Such everyday necessities of language as articles, prepositions and auxiliary verbs are either absent or appear sporadically in a quite impredictable fashion. Pidgin sentences have no subordinate clauses, and single-clause utterances frequently lack verbs (see Figure 5.3).

The first of the following examples was recorded from a pidgin-speaking Korean; omitted words are

bracketed in the translation: "And a too much children, small children, house money pay" ("And [I had] too many children, small children, [I had] to pay the rent"). The second example was recorded from a Japanese speaker: "Before mill no more Filipino no nothing" ("Before the mill [was built, there were] no Filipinos here at all"). The third example, recorded from the speech of a retired bus driver, illustrates the heroic measures needed to say anything out of the ordinary in pidgin: "Sometimes good road get, sometime, all same bend get, enguru [angle] get, no? Any kind same. All same human life, all same" ("Sometimes there's a good road, sometimes there's, like, bends, corners, right? Everything's like that. Human life's just like that").

The language-learning task confronted by the child born into a community of such speakers is far different from the task imposed on the child who is surrounded by linguistically competent adults. The children of English or Chinese parents, for example, are presented with accurate models to follow. Although their mistakes are seldom overtly corrected, they can almost constantly check their own utterances against those of older speakers and adapt them where necessary. When they have mastered

PIDGIN	HAWAIIAN CREOLE ENGLISH	
Building - high place - wall part - time - now- time - and then - now temperature every time give you.	Get one [There is an] electric sign high up on da wall of da building show you what time an' temperature get [it is] right now.	
Now days, ah, house, ah, inside, washi clothes machine get, no? Before time, ah, no more, see? And then pipe no more, water pipe no more.	Those days bin get [there were] no more washing machine, no more pipe water like get [there is] inside house nowadays, ah?	
No, the men, ah—pau [finished] work—they go, make garden. Plant this, ah, cabbage, like that. Plant potato, like that. And then—all that one—all right, sit down. Make lilly bit story.	When work pau [is finished] da guys they stay go make [are going to make] garden for plant potato an' cabbage an' after little while they go sit down talk story ["shoot the breeze"].	
Good, this one. Kaukau [food] any kind this one. Pilipin island no good. No more money.	Hawaii more better than Philippines, over here get [there is] plenty kaukau (food), over there no can, bra [brother], you no more money for buy kaukau [food], 'a'swhy [that's why].	

Figure 5.3 PIDGIN AND CREOLE versions of identical sentences illustrate the structural differences between pidgin and Creole in Hawaii. Pidgin, which is spoken only by immigrants, varies widely from speaker to speaker and its structure is extremely rudimentary. Pidgin sentences are little more than strings of nouns, verbs and adjectives, often arranged to place old, shared information first and

new information later in the sentence. Creole arose in Hawaii only among the children of immigrants, and it is much richer in grammatical structure than pidgin. Moreover, the rules of Creole grammar are uniform from speaker to speaker, and they resemble the structural rules of other creoles. English versions of words and phrases are given in brackets.

the simpler structures of their language, more complex structures are readily available.

For the Hawaiian-born child of immigrant parents, however, there was no consistent linguistic model for the basic word order of simple sentences and often no model at all for the more complicated structures of language. Many such children were born of interethnic or interracial marriages, and so even at home there was little occasion to speak the native language of either parent. Moreover, even among the children not born of linguistically mixed parents there was considerable incentive to abandon the parents' native language and adopt some version of pidgin in the company of peers and neighboring adults. Like first-generation immigrant children elsewhere, the children of Hawaiian immigrants often became bilingual or even trilingual, and they adopted the common language of their peers as a native language in spite of considerable efforts by their parents to maintain the ancestral tongue.

The historical evidence is consistent with the I view that the structure of Creole arose without significant borrowing from other languages. Bilingual or trilingual children of school age need not (and usually do not) mix up the structural features of the languages they speak, and there is no reason to support such crossovers were common in Hawaii. The most compelling argument for the autonomous emergence of Creole, however, is its observed uniformity. How, within a single generation, did such a consistent and uniform language develop out of the linguistic free-for-all that was pidgin in Hawaii? Even if all the children of various immigrant groups had begun by learning the languages of their parents, and even if the differences among the various pidgins had been smoothed by interaction and contact among the children, the homogeneity of the language that developed remains in need of explanation. Fifty years of contact among pidgin-speaking adults were not enough to erase the differences among the national language groups; the homogeneity must have resulted from the differences between children and adults.

One might still suppose the structural uniformity of Creole is derived from certain structures of one of the ancestral languages or perhaps from certain structures of English, the language of the plantation owners. There are numerous differences, however, between the structure of Creole and the structure of any of the languages with which Creole speakers might have been in contact (see Figure 5.4). In En-

glish, for example, it is possible to refer to an object or a group of objects in a nonspecific way, but English grammar forces the speaker to state in advance whether the number of unspecified objects is one or many, singular or plural. One must say either "I am going to the store to buy a shirt" or "I am going to the store to buy shirts," even though one may not want to commit oneself in advance to buying any particular number of shirts.

In Creole a grammatically neutral marker for number can be employed on the noun "shirt" in order to avoid specifying number: "I stay go da store for buy shirt" ("I am going to the store to buy shirt"). Moreover, in Creole the addition of a definite or an indefinite article to "shirt" changes the meaning of the sentence. In saying "I stay go da store for buy one shirt" the Creole speaker asserts the shirt is a specific one; in the sentence "I stay go da store for buy da shirt" the speaker further presupposes that the listener is already familiar with

the shirt the speaker is going to buy.

There are many other features of Creole that distinguish it from English. Whereas in English there is a past tense, which is usually marked with the suffix "-ed," in Creole there is a tense called the anterior tense, which is marked with "bin" for older speakers and with "wen" for younger speakers. The anterior tense is somewhat like the English past perfect: "had walked" in English is "bin walk" in Creole, and "walked" in English is simply "walk" in Creole. In order to distinguish irreal, or possible, actions or processes from actual ones, English employs the conditional or the future tense. In Creole all such irreal circumstances are expressed by the particle "go," which is placed before the main verb and marks what linguists call modality. For example, the sentence "If I had a car, I would drive home" is rendered in Creole as "If I bin get car, I go drive home."

There is also a Creole auxiliary verb that marks what linguists call aspect; it too is placed before the main verb and indicates that the action expressed by the verb is nonpunctual, or in other words repeated, habitual, continuing or incomplete. In order to say "I run in Kapiolani Park every evening" in Creole one must say "I stay run in Kapiolani Park every evening." If the particle "stay" is omitted by the Creole speaker, the action is understood to be completed on nonrepetitive.

I n English there is no straightforward way to distinguish purposes that have been accomplished Figure 5.4 tences in show that grammar l insignifica guages: "c and "kaul

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ENGLISH	HAWAIIAN CREOLE ENGLISH	
The two of us had a hard time raising dogs.	Us two bin get hard time raising dog.	
John and his friends are stealing the food.	John-them stay cockroach the kaukau.	
He doesn't want to play because he's lazy.	He lazy, 'a'swhy he no like play.	
How do you expect to finish your house?	How you expect for make pau you house?	
It would have been better if I'd gone to Honolulu to buy it.	More better I bin go Honolulu for buy om.	
The one who falls first is the loser.	Who go down first is loser.	
The man who was going to lay the vinyl had quoted me a price.	The guy gon' lay the vinyl bin quote me price.	
There was a woman who had three daughters.	Bin get one wahine she get three daughter.	
She can't go because she hasn't any money.	She no can go, she no more money, 'a'swhy.	

Figure 5.4 STRUCTURAL DIFFERENCES between sentences in Hawaiian Creole and their English equivalents show that the grammar of Creole did not originate as a grammar borrowed from English. There are also relatively insignificant lexical differences between the two languages: "cockroach" is picturesquely employed as a verb, and "kaukau," which may be derived from the Chinese

pidgin term "chowchow," is a common word for "food." equally striking structural differences are found between Hawaiian Creole and other languages, such as Chinese, Hawaiian, Japanese, Korean, Portuguese, Spanish or the Philippine languages, with which speakers of Hawaiian Creole might have been in contact.

from those that have not. The sentence "John went to Honolulu to see Mary" does not specify whether or not John actually saw Mary. In Creole grammar the ambiguity must be resolved. If John saw Mary and the Creole speaker knows that John saw Mary, the speaker must say, "John bin go Honolulu to see Mary." If John did not see Mary or if the speaker does not know whether or not John saw Mary, the speaker must say, "John bin go Honolulu for see Mary."

Similar distinctions could be drawn between the grammatical structure of Creole and the structure of other contact languages, such as Hawaiian, Ilocano (the language spoken in the north of the Philippine island of Luzon) and Japanese. There are also resemblances, but most of them are confined to idiomatic expressions. For example, the Creole expression "O the pretty," which means "How pretty he [she/it] is," is a literal translation of the Hawaiianlanguage idiom "I ka nani." In the main, however, our investigations strongly suggest that the basic structures of Creole differ from those of other languages. Although it might seem that some children of immigrants could transfer the structures of their parents' native languages onto the evolving Creole language, they did not do so. The structural linguistic input that was available to the children was apparently not used in the development of Creole

Even if it could be demonstrated that all the grammatical structures of Creole were borrowed, cafeteria-style, from one contact language or another, the uniformity of Creole would present a difficult question: How did the speakers who invented Creole come to agree on which structure to borrow from which language? Without such agreement Creole could not be as uniform as it is. Yet it seems highly implausible that the agreement could have been reached so quickly. If there had been massive borrowing from ancestral languages, differences in the version of Creole spoken by various groups would have persisted at least one generation beyond the first generation of speakers.

There is another dimension to the problem of the uniformity of Hawaiian Creole. It turns out that creole languages throughout the world exhibit the same uniformity and even the same grammatical structures that are observed in Hawaii. The finding is all the more remarkable when it is compared with the rather poor correspondence in structure I have noted between Hawaiian Creole and other contact languages in Hawaii. For example, the distinction made in Hawaiian Creole between singular, plural, and neutral number is also made in all other creole

languages. Similarly, in all other creole languages there are three invariant particles that act as auxiliary verbs and play the roles that "bin," "go" and "stay" play in Hawaiian Creole (see Figure 5.5).

In Haitian Creole, for example, the word "té" marks the anterior tense of the verb, the word "av(a)" marks irreal modality and the word "ap" marks the aspect of the verb as nonpunctual. Thus in Haitian Creole the phrase "I have been walking" is rendered "m [I] t'ap [té + ap] maché." Similarly, in Sranan, an English-based creole found in Surinam (formerly Netherlands Guiana), the anterior tense marker is "ben," the irreal modality marker is "sa" and the nonpunctual aspect marker is "e." The phrase "He would have been walking" is rendered 'A [he] ben sa e waka." Most important, there is strict order that must be followed in all creole languages when more than one of these markers is present in a sentence. The particle for tenses precedes the particle for modality, and the particle for modality precedes the particle for aspect.

Finally, consider the grammatical distinction I have noted between purposes accomplished and unaccomplished. The same distinction, absent in English, is found in all creoles. In Mauritian Creole, a creole based on the French vocabulary that is used on the island of Mauritius, a sentence such as "He decided to eat meat" can be expressed in two ways. If the subject of the sentence carried out his decision, the sentence is rendered "Li ti desid al mâz lavian," which literally means "he decided go eat meat." If the decision was not carried out, the sentence is rendered as "Li ti desid pu mâz lavian," or literally "He decided for eat meat." In Jamaican Creole the sentence "He went to wash" must be rendered either as "Im gaan fi bied" ("He went with the intention of washing") or as "Im gaan go bied" ("He went to wash and completed the task").

These examples only suggest the extent of the structural similarities among creole languages. The similarities seem unaffected by the wide geographic dispersion of the creoles and the variation among the languages such as Dutch, English and French from which they draw the greatest part of their vocabulary. Scholars such as Hugo Schuchardt began to point out the resemblance in the 19th century, and in the 1960's many examples were explored in detail by Douglas Taylor, by Robert Wallace Thompson of the University of the West Indies and by Keith Whinnom of the University of Exeter. Thus even before the development of Hawaiian Creole was reasonably well understood the

VERB FORM		
BASE FORM ("HE WALKED"; "HE LOVES")		
ANTERIOR ("HE HAD WALKED"; "HE LOVED")		
IRREAL ("HE WILL/WOULD WALK"; "HE WILL/WOULD LOVE")		
NONPUNCTUAL ("HE IS/WAS WALKING")		
ANTERIOR + IRREAL ("HE WOULD HAVE WALKED"; "HE WOULD HAVE LOVED")		
ANTERIOR + NONPUNCTUAL ("HE WAS/HAD BEEN WALKING")		
IRREAL + NONPUNCTUAL ("HE WILL/WOULD BE WALKING")		
ANTERIOR + IRREAL + NONPUNCTUAL ("HE WOULD HAVE BEEN WALKING")		

Figure 5.5 CONJUGATION OF THE VERB is similar in all creole languages, in spite of superficial lexical differences. Stative verbs are verbs such as "like," "want" and "love," which cannot form the nonpunctual aspect; in English, for example, one cannot add "-ing" to a finite stative verb. The

grammatical similarities among the creole languages of the world were recognized as an important finding that required explanation.

he linguist's first reaction to such a finding is to look for a common ancestor of the similar languages. For example, it has been conjectured that the linguistic ancestor was a contact language that grew out of Portuguese and certain West African languages in the course of the first Portuguese explorations of Africa in the 15th and 16th centuries. According to the hypothesis, this contact language was subsequently spread around the world by Portuguese sailors, changing its vocabulary but not its syntax or semantics as it entered the sphere of influence of another colonial power. Superficially such an explanation might seem to be consistent with the development of Creole in Hawaii, because Portuguese laborers were brought to the islands in large numbers during the late 19th and early 20th cen-

There are several serious flaws in the account. First, Hawaiian Creole bears scant resemblance to any of the contact languages, including Portuguese. Second, the claims of linguistic similarity between creoles and Portuguese or between creoles and West African languages are grossly exaggerated. Most important, our study of hundreds of Hawaiian speakers has made it clear that Hawaiian Creole

HAWAIIAN COME WALK

HE BIN WALK

HE GO WALK

HE STAY WAL

HE BIN GO WALK

HE BIN STAY

HE BIN STAY

HE BIN GO STAY WAL

HE BIN GO STAY

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VERB FORM
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JLD WALK"; "HE WILL/WOULD LOVE")
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REAL ("HE WOULD HAVE WALKED"; AVE LOVED")
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PUNCTUAL JLD BE WALKING")
REAL + NONPUNCTUAL IAVE BEEN WALKING")

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NONSTATIVE VERBS			STATIVE VERBS		
HAWAIIAN CREOLE	HAITIAN CREOLE	SRANAN	HAWAIIAN CREOLE	HAITIAN CREOLE	SRANAN
HI, WALK	LI MACHÉ	A WAKA	HĘ LOVE	LI RÊMÊ	A LOBI
HL BIN WALK	LI TĖ MACHĖ	A BEN WAKA	HE BIN LOVE	LI TÉ RÊMÊ	A BEN LOBI
HE GO WALK	L'AV(A) MACHÉ	A SA WAKA	HE GO LOVE	L'AV(A) RÉMÊ	A SA LOBI
HE STAY WALK	L'AP MACHÉ	A E WAKA	_	_	_
HE BIN GO WALK	LI T'AV(A) MACHÉ	A BEN SA WAKA	HE BIN GO LOVE	LI T'AV(A) RÊMÊ	A BEN SA LOBI
HE BIN STAY WALK	LI T'AP MACHÉ	A BEN E WAKA	_	_	_
HE GO STAY WALK	L'AV AP MACHÉ	A SA E WAKA	_	_	_
HE BIN GO STAY WALK	LI T'AV AP MACHÉ	A BEN SA E WAKA	-		_

base form of the verb refers to the present for stative verbs and to the past for nonstative verbs. The anterior tense is roughly equivalent to the English past tense for stative verbs and to the English past perfect tense for noninvasive verbs. The irreal mode includes the English future, conditional and subjunctive. In all the creole languages the anterior particle precedes the irreal particle, and the irreal particle precedes the nonpunctual particle. In Hawaiian, Creole, however, "He bin go walk" has come to mean "He walked" instead of "He would have walked."

almost certainly originated in Hawaii. We found no surviving immigrant who speaks anything approximating a creole language; instead every immigrant we surveyed speaks some variety of pidgin. If Hawaiian Creole was primarily an important language, it would have been carried by immigrants, and presumably it would have been learned by others among the immigrant population. One must therefore conclude that Hawaiian Creole arose among the children of immigrants, where it is now found. Moreover, if a creole language, could develop in Hawaii without ancestry, it can arise anywhere else in a similar way.

The implications of these findings are far-reaching. Because the grammatical structures of creole languages are more similar to one another than they are to the structure of any other language, it is reasonable to suppose most if not all creoles were invented by the children of pidgin-speaking immigrants. Moreover, since creoles must have been invented in isolation, it is likely that some general ability, common to all people, is responsible for the linguistic similarities (see Figure 5.6).

The suggestion that people are biologically predisposed to use language is not a new one: for more than two decades Noam Chomsky of the Massachusetts Institute of Technology has argued that there is an innate universal grammar underlying all human languages. The universal grammar is postulated largely on the grounds that only by its means could children acquire a system as enormously complex as a human language in the short time they do. Studies by the late Eric H. Lenneberg tend to confirm Chomsky's hypothesis. The acquisition of language resembles the acquisition of other complex and flexible aspects of the child's behavior, such as walking, which are undoubtedly controlled to some degree by neurophysiological development. The universal grammar conjectured by Chomsky is a computing device, somehow realized neurologically, that it makes a wide range of grammatical models available to the child. According to Chomsky, the child must then "select" which of the available grammatical models matches the grammar of the language into which the child is born.

The evidence from creole languages suggests that first-language acquisition is mediated by an innate device of a rather different kind. Instead of making a range of grammatical models available, the device provides the child with a single and fairly specific grammatical model. It was only in pidgin-speaking communities, where there was no grammatical model that could compete with the child's innate grammar, that the innate grammatical model was not eventually suppressed. The innate grammar was then clothed in whatever vocabulary was locally

CHILD LANGUAGE	' ENGLISH CREOLES .
Where I can put it?	Where I can put om? (Hawaii)
Daddy throw the nother rock.	Daddy t'row one neda rock'tone. (Jamaica)
I go fuli Angela bucket.	I go full Angela bucket. (Guyana)
Lookit a boy play ball.	Luku one boy a play ball. (Jamaica)
Nobody don't like me.	Nobody no like me. (Guyana)
I no like do that.	I no like do that. (Hawaii)
Johnny big more than me.	Johnny big more than me. (Jamaica)
Let Daddy get pen write it.	Make Daddy get pen write am. (Guyana)
1 more better than Johnny.	I more better than Johnny. (Hawaii)

Figure 5.6 SENTENCES SPOKEN BY CHILDREN between two and four years old, all born of English-speaking parents, are strikingly similar to sentences in English-based creole languages. The similarities among creole languages and the likelihood that the languages arose independently of one another suggest that creoles develop

among children whenever there is no adequate native language to serve as a model. The author conjectures that if children were removed from their native English-language community at the age of about two, they would grow up speaking a language whose vocabulary would be primarily English but whose grammar would be a creole.

available and gave rise to the creole languages heard today.

The implications of this hypothesis call into question an idea that most linguists, including Chomsky, have tacitly accepted for many years, namely that no one of the world's languages is easier or harder for the child to acquire than any other. If there is a creole grammar somehow imprinted in the mind, creole languages should be easier to acquire than other languages. How is it, then, that not all children grow up speaking a creole language? The answer is they do their best to do just that. People around them, however, persist in speaking English or French or some other language, and so the child must modify the grammar of the native creole until it conforms to that of the local language.

Two kinds of linguistic evidence are relevant for testing the hypothesis. First, if some grammatical structure of creole is at variance with the corresponding grammatical structure of the local language, one should find that children make systematic errors with respect to the structure of the local language. On the other hand, if the two grammatical structures tend to agree, one should find extremely early, rapid and errorless acquisition of the local-language structure.

Consider the systematic error observed by David McNeill of the University of Michigan in the speech of a four-year-old boy. In one of McNeill's observing sessions the boy complained, "Nobody don't like me," and the boy's mother responded by correcting the sentence: "Nobody likes me." The boy

then repeated his sentence and the mother repeated her correction no fewer than eight times. Finally, the child altered his sentence and shouted in exasperation, "Nobody don't likes me."

The error is found in many English-speaking children between three and a half and four years old, including children who are not exposed to dialects of English that employ double negatives. There are many languages, such as French and Spanish, that also employ double negatives, but the only languages that allow negative subjects with negative verbs are creoles. For example, in Papia Kristang, the Portuguese-based creole language of the Malay Peninsula, one can say, "Angkosa nte mersimentu," or literally, "Nothing not-have value." In Guyanese Creole, which is based on English and found in Guyana (formerly British Guiana), one can say, "Non dag na bait non kyat," or literally, "No dog did not bite no cat."

A second instance of systematic error is found in the formation of children's questions. Children learning English of ten indicate questions only by their intonation; the subject and the auxiliary verb are almost never reversed. For example, children repeatedly say things such as "You can fix this?" even though they have heard countless questions such as "Can you fix this?" Similarly, no creole language distinguishes questions and statements on the basis of word order; the difference is marked by intonation alone.

Onsider the sentence "A gon' full Angela bucket." Although such a sentence is unaccep-

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table in English, it is perfectly acceptable in Hawaiian Creole, Guyanese Creole or any of several other creoles related to English. It is synonymous with the sentence "I'm going to fill Angela's bucket," but it differs from the structure of the English sentence in the following ways. First, the firstperson pronoun "I" is reduced to "A"; second, the auxiliary verb "am" is omitted; third, the forms "go" or "gon" are used to mark the future tense; tourth, the word "to" in the infinite is omitted; fifth, the adjective "full" is employed as if it were a transitive verb, and sixth, the possessive marker "-'s" is omitted. All these features are characteristics of creoles, but this sentence was not uttered by a creole speaker. It was spoken by the three-year-old daughter of an English-speaking linguist.

When a feature of the local language matches the structure of creole, children avoid making errors that would otherwise seem quite natural. For example, children learning English acquire the suffix "-ing," which expresses duration, at a very early age. Even before the age of two many children may things such as "I sitting high chair," where the verb expresses a continuing action. One would expect that as soon as the suffix was acquired it would be applied to every possible verb, just as the suffix "-s" that marks the English plural is frequently overgeneralized to nouns such as "foot" and "sheep."

One would therefore expect children to utter ungrammatical sentences such as ungrammatical sentences such as "I liking Mommy" and "I wanting candy." Remarkably, such errors are almost never heard. Children seem to know implicitly that English verbs such as "like" and "want," which are called stative verbs, cannot be marked by the suffix "-ing" to indicate duration. The distinction between stative and nonstative verbs is fundamental to creole languages, however, and no marker of continuing action can be employed with a stative verb in creoles either.

The distinction between specific and nonspecific reference, which I had already discussed, is an important feature of creole languages. In English the distinction can be subtle, but young children none-

theless acquire it with ease. Michael P. Maratsos of the University of Minnesota constructed a series of sentences for children to complete, for which the completions depended on the distinction between specific and nonspecific reference. For example, the sentence "John has never read a book," which makes nonspecific reference to the noun "book," can be completed by the phrase "and he never will read a book"; it cannot be completed by the phrase "and he never will read the book." Similarly, the sentence "John read a book yesterday," in which a specific book is presupposed, can be completed by the phrase "and he enjoyed the book"; it cannot be completed by the phrase "and he enjoyed a book." Children as young as three years were able to make such distinctions correctly about 90 percent of the

Many more studies of language acquisition will have to be carried out before the structure of creole languages can be firmly accepted as the basis of first-language acquisition. Daniel Isaac Slobin of the University of California at Berkeley has suggested that there is a set of processes children apply to any language they hear, which he calls basic child grammar. Slobin's most recent work, which is not yet published, cites evidence from several languages for the hypothesis, and it now appears that basic child grammar and creole languages may have much in common.

I f creole languages represent the manifestation of a neurologically determined program of child development, then Psamtik was by no means the fool he has been taken for. It may be possible to discover, at least in general outline, the structure of human language in the early stages of its development. Moreover, in attempting to reconstruct such a language linguists may be able to answer questions the pharaoh did not even ask: How did the human language originate? What are the minimum prerequisites for such a thing as language to arise in a species? If such questions can be answered or even formulated in a precise and coherent way, we shall be much closer to understanding what makes the human species different from others.